Appendix G Hazardous Materials Reports

Appendices

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Revised Remedial Investigation Report

Agua Mansa Commerce Park
Jurupa Valley, Riverside County, California

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TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Objectives 1
1.2 Lead Regulatory Agency 1
1.3 Site Background 2
1.3.1 Site Description 2
1.3.2 General Site Background 2
1.4 Proposed Development 4
2.0 GEOLOGY AND HYDROGEOLOGY 6
2.1 Geology 6
2.1.1 Regional Geologic Setting 6
2.1.2 Local Geologic Setting 6
2.1.3 Local Faulting 7
2.2 Hydrology 8
3.0 REVIEW OF REGULATORY LISTINGS 10
3.1 Regulatory Database Information 10
3.2 Freedom of Information Act Requests 11
4.0 REVIEW OF PREVIOUS INVESTIGATIONS/REGULATORY CORRESPONDENCE 12
4.1 US Environmental Protection Agency (USEPA) and CA Department of Toxic Substances Control (DTSC) 12
4.2 Santa Ana Regional Water Quality Control Board (RWQCB) 14
4.2.1 RWQCB Order Closeout 14
4.2.2 RWQCB Correspondence-Groundwater Quality and CKD 15
4.3 Riverside County Department of Environmental Health (RCDEH) 17
5.0 HISTORICAL SITE ACTIVITIES 24
5.1 Historical USGS Topographic Quadrangles 24
5.2 City Directories 25
5.3 Aerial Photographs 25
6.0 SITE VISITS 27
6.1 Site Observations 27
6.2 Offsite Observations 30
7.0 POTENTIAL AREAS OF INTEREST (AOIS) 32
7.1 Summary of potential areas of interest (AOIs) 32
7.2 Description of AOIs 32
7.2.1 Area of Interest #1 – CKD-Containing Soil Areas 32
7.2.2 Area of Interest #2 – Former USTs 33
7.2.3 Area of Interest #3 – White Kiln Pipeline Release 34
7.2.4 Area of Interest #4 – Former Boiler Blowdown Pond 34
7.2.5 Area of Interest #5 – Former Spray Pond 35
7.2.6 Area of Interest #6 – Former Sag Pond 35
7.2.7 Area of Interest #7 – Hazardous Waste Storage Area 35
7.2.8 Area of Interest #8 – Sewer Alignments 36
7.2.9 Area of Interest #9 – Settling Areas 36
7.2.10 Area of Interest #10 – Major Fill Piles or Berms 36
7.2.11 Area of Interest #11 – Former or Existing Transformers 36
7.2.12 Area of Interest #12 – Stormwater Retention Basin 37

7.3 Sampling Activities....37
7.3.1 Soil....37
7.3.2 Groundwater and Surface Water....43
8.0 RESULTS OF ANALYTICAL SAMPLING....45
8.1 Soil....45
8.1.1 Metals....45
8.1.2 Total Petroleum Hydrocarbons....45
8.1.3 Polychlorinated Biphenyls....46
8.1.4 Volatile and Semi-Volatile Organic Compounds....46
8.2 Groundwater and Surface Water....47
8.2.1 Metals....47
8.2.2 Volatile Organic Compounds....47
9.0 SCREENING-LEVEL RISK ASSESSMENT....48
9.1 Receptors and Exposure Pathways....48
9.2 Risk Characterization....49
9.2.1 Soil....49
9.2.2 Groundwater....51
10.0 SUMMARY AND CONCLUSIONS....52
11.0 REFERENCES....54

ATTACHMENTS

TABLES

Table 1	Summary of Key Field Observations and Laboratory Analytical Results
Table 2a	Summary of Laboratory Analytical Results – Area of Interest #1
Table 2b	Summary of Laboratory Analytical Results – Area of Interest #2
Table 2c	Summary of Laboratory Analytical Results – Area of Interest #4
Table 2d	Summary of Laboratory Analytical Results – Area of Interest #5
Table 2e	Summary of Laboratory Analytical Results – Area of Interest #6
Table 2f	Summary of Laboratory Analytical Results – Area of Interest #7
Table 2g	Summary of Laboratory Analytical Results – Area of Interest #8
Table 2h	Summary of Laboratory Analytical Results – Area of Interest #9
Table 2i	Summary of Laboratory Analytical Results – Area of Interest #10
Table 2j	Summary of Laboratory Analytical Results – Area of Interest #11
Table 2k	Summary of Laboratory Analytical Results – Area of Interest #12
Table 21	Summary of Laboratory Analytical Results – Background and Supplemental Sampling Areas
Table 3a	Summary of Laboratory Analytical Results – Groundwater (Total)
Table 3b	Summary of Laboratory Analytical Results – Groundwater (Dissolved)

FIGURES

Figure 1	Site Vicinity Map
Figure 2	Site Map with Key Site Features and Areas of Interest
Figure 3a	Field Investigation Locations and Analytical Results - East
Figure 3b	Field Investigation Locations and Analytical Results - West

LIST OF APPENDICES

Appendix A	Regulatory Database Search Results
Appendix B	USEPA and DTSC Documents
Appendix C	RWQCB Documents
Appendix D	RCDEH Documents
Appendix E	Historical EDR Documents-Aerial Photos, USGS Maps, City Directories
Appendix F	Field Data-Logs and Groundwater Monitoring Sheets
Appendix G	Laboratory Analytical Reports

1.0 INTRODUCTION

Langan Engineering and Environmental Services, Inc. (Langan) has prepared this Remedial Investigation (RI) Report for the former Riverside Cement Plant (RCP) or the "site", located at 1500 Rubidoux Boulevard in Jurupa Valley, California (Figure 1). The site consists of approximately 206 acres in the City of Jurupa, Riverside County, California.

1.1 OBJECTIVES

The purpose of this RI Report is to provide a summary of the historical operations and the site geologic/hydrologic characteristics, perform a review of the regulatory listings and previous environmental investigations, and summarize the recent investigations to provide a basis for the proposed remedial action to facilitate the redevelopment of the site.

1.2 LEAD REGULATORY AGENCY

As outlined in later sections of this report, a number of California and United States regulatory agencies have been involved with the site, as outlined below:

- United States Environmental Protection Agency (USEPA), Region IX-Evaluated for inclusion in Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) program.
- California Department of Toxic Substances Control (DTSC)-DTSC conducted Site Screening Assessments in 2006 and 2009.
- Santa Ana Regional Water Quality Control Board (RWQCB)-Monitored under Waste Discharge Requirements (WDRs) that were terminated in 1998.
- Riverside County Department of Environmental Health (RCDEH)-Closeout of underground storage tank (UST) and above ground storage tank (AST) releases.
- South Coast Air Quality Management District (SCAQMD)-Permitting for Title V, and monitoring of decommissioning and redevelopment under Rule 1156.

Based on meetings and correspondence with the above agencies, it is understood that DTSC is likely the lead agency for the remedial action related to the proposed

development.

Therefore, the purpose of this RI is also to summarize the historical activities, the previous investigations, and the current investigations for DTSC review. The SCAQMD is continuing to manage the potential for air quality impacts for the proposed redevelopment during decommissioning under Rule 1156.

1.3 SITE BACKGROUND

1.3.1 Site Description

The site is approximately 206 acres located at 1500 Rubidoux Boulevard. The approximate location is shown on Figure 1. The site includes 13 parcels in Jurupa Valley, California with the Assessor's Parcel Numbers (APNs) listed below:

APN #
175-200-001
175-200-002
175-200-003
175-200-004
175-200-005
175-200-007
175-200-008
175-200-009

APN#
175-170-035
175-170-036
175-170-040
175-170-041
175-180-001

1.3.2 General Site Background

The RCP property has been historically used by the Riverside Cement Company (RCC) for mining, quarrying, and/or cement manufacturing since the early 1900s. The main components of the site improvements include the cement plant, supporting infrastructure, various silos and kilns, storage areas, and office/maintenance buildings. Mining or quarrying operations began in 1906 and continued into the mid-1980s, with the exception of a 13 year period between 1929 and 1942.

The RCP includes four quarries designated as the Wet Weather, the Crestmore, the Commercial, and the Lone Star Quarries. An underground mine also operated by RCC is designated as the Crestmore Mine. The Wet Weather Quarry and Lone Star Quarry are located within the site, while the others are located on the parcel south of the site

(Figure 2). The RCC terminated manufacturing operations in 2008, and as of early 2017, the cement manufacturing facilities are in the process of decommissioning.

Surface mining at the Crestmore Quarry was terminated in 1927 and underground mining at the Crestmore Mine started in 1930. The Block Caving Method was used in underground mining from 1930 to 1954, and the Room and Pillar Underground Mining Method was used from 1955 to 1986. Underground mining was ceased and the Crestmore Mine/Crestmore Quarry was flooded in the mid-1980's, resulting in the lake south of the site.

Cement manufacturing operations began in 1914 and continued through 2008. The limestone obtained from the quarries/mine was mixed with materials imported from off-site, and heated in rotary kilns to manufacture cement clinker. The cement clinker was then crushed to create cement, which was then packaged and shipped offsite. Cement Kiln Dust (CKD) was one of the primary by-products generated during the manufacturing process, and was comprised of material accumulated within the kilns that could not be reused in the process stream. CKD is a fine-grained material that exhibits a slightly pinkish hue. When hydrated, CKD becomes dense and relatively impermeable to water, but does not form a cemented mass. Prior to the 1970s, CKD was hauled from the kilns using end-dump trucks and placed with fill soils/mine spoils at several locations throughout the site (Figure 2). In the 1970s, a process was implemented to incorporate CKD into the final product, and some of the previously deposited CKD was recovered.

The equipment used to manufacture cement generally relied on electrical power for material conveyance/process control, and petroleum fuels for heating. Petroleum fuels were historically provided by a 6,000,000 gallon UST storing Bunker C fuel oil. Other USTs at the site were used to store petroleum products such as gasoline, diesel fuel, fuel oil, and waste oil. The table below provides a summary of the USTs at the site:

Table 1
List of Underground Storage Tanks

Size of UST (gallons)	Chemical Storage	UST Location	Permit for Closure	Closure Report	Closure Approval (NFA)
1,000	Gasoline	Maintenance Area	5/19/1999	6/1/1999	7/1/1999
2,000	Diesel	Maintenance Area	5/19/1999	6/1/1999	7/1/1999
12,000	Diesel	White Cement Plant	6/17/1997	6/26/1997	9/3/1997

Size of UST (gallons)	Chemical Storage	UST Location	Permit for Closure	Closure Report	Closure Approval (NFA)
12,000	Diesel	White Cement Plant	6/17/1997	6/26/1997	9/3/1997
10,000	Gasoline	Maintenance Area	6/17/1997	6/26/1997	9/3/1997
6,000,000	Fuel Oil	Grey Cement Plant	*Unable to Locate*	9/23/1987	11/4/1987
10,000	Gasoline	Maintenance Area	6/1/1987	5/1/1988	*Unable to Locate*
10,000	Gasoline	Grey Cement Plant	2/18/1988	5/3/1988	*Unable to Locate*
550	Waste Oil	Maintenance Area	2/18/1988	5/3/1988	*Unable to Locate*

ASTs were also present throughout the site to provide fuels for the kilns, process equipment driven by combustion engines, and support vehicles, and to contain other fluids used at the site such as dust suppressants, acids (i.e. sodium hypochlorite), and antifreeze. The table below provides a summary of ASTs at the site:

Table 2
List of Aboveground Storage Tanks

Size of AST (gallons)	Chemical Storage	AST Location	Construction	Status
1,000	Diethylene Glycol	White Cement Plant	Steel	Removed
Unknown	Diesel Oil	White Cement Plant	Steel	Removed
210,000	No. 6 Fuel Oil	White Cement Plant	Steel	Cleaned
2,000	Unleaded Gasoline	Grey Cement Plant	Steel	Removed
2,000	Diesel	Grey Cement Plant	Steel	Removed
1,000	Diesel	Maintenance Area	Steel	Removed
5,000	Sodium Hypochlorite	Grey Cement Plant	Polyethylene	Removed
5,000	Dust Suppressant	Material Storage Area	Steel	Removed
4,000	Dust Suppressant	Material Storage Area	Polyethylene	Removed
10,000	Tall Oil	Grey Cement Plant	Steel	Cleaned
12,000	Diethylene Glycol	Grey Cement Plant	Steel	Cleaned
250	Waste Oil	Maintenance Area	Steel	Removed

Transformers were present throughout the site to convert distribution voltage (4,160V) to low voltage (120/240V), and many of these transformers remain in place. The locations of the key historical and current features are shown on Figure 2.

1.4 PROPOSED DEVELOPMENT

The proposed development for the site consists of the construction of three to four

warehouse distribution structures with associated utilities and parking. The mass grading for the site includes cuts and fills up to 35 feet, with total grading yardage estimated at between one and two million cubic yards. After completion, the site will be covered by structures, parking and landscaped areas.

The proposed development is outlined on Figure 2.

2.0 GEOLOGY AND HYDROGEOLOGY

2.1 GEOLOGY

2.1.1 Regional Geologic Setting

The site is located in the Peninsular Ranges Province of Southern California, dominated by granitic rocks of Mesozoic age that intruded pre-existing sedimentary strata. Tertiary strata were deposited west of the eroded granitic rocks, and as the area was uplifted, some of these strata formed upland coastal plains. The site is also located east of the coastal plains in an area dominated by granitic rocks that are mainly quartz diorite. As discussed above, specific areas of the site were used for mining activities due to the presence of two steeply dipping limestone formations approximately 200 to 300 feet thick in the northern end. The limestone formations are roughly parallel, with an upper and lower formation; the upper formation is known as the Sky Blue Hill Limestone and the lower formation is known as the Chino Limestone. Thin, poorly developed soils and minor sedimentary strata locally cover the bedrock on the site.

As stated above, the site is located within the fault-bounded, northwest-southeast trending Perris Block within the Peninsular Ranges geomorphic province of California. The Perris Block is bounded in the east by the San Jacinto Fault Zone, the north by Cucamonga Fault Zone, and the west by Elsinore Fault Zone. According to the United States Geologic Survey (USGS) maps, the Perris Block is underlain by lithologically diverse prebatholithic metasedimentary rocks intruded by plutons of the Cretaceous age Peninsular Ranges batholith. Erosional depositional surfaces are developed on the Perris Block and thin to relatively thick sections of Quaternary age non-marine sediments discontinuously cover the basement rock.

2.1.2 Local Geologic Setting

The site is located in the eastern end of the Jurupa Mountains on the south side of the San Bernardino Valley. The Santa Ana River drains the San Bernardino Valley towards the southwest and is located approximately one-half mile east of the Site.

Based on a review of published geologic reports, maps and referenced geologic information, the site is underlain by two geologic units consisting of artificial fill, alluvium, aeolian sands and intermixed tonalite marble and schist. The artificial fill (Qaf) reportedly consists of uncompacted and undocumented fill from mining operations,

CKD and unconsolidated talus deposits. The intermixed tonalite, marble, and schist (KtPzms) are Cretaceous and Paleozoic age and consist of intermixed biotite-hornblende tonalite and coarse grained marble containing lesser amounts of biotite-quartz schist.

Based on the information reviewed, quarrying and subsurface mining activities were initiated in 1906 to mine the limestone located on the site. Prior to quarrying, the limestone was present as two generally irregular, roughly parallel, lenticular limestone bodies dipping primarily east-northeast. As discussed above, the upper (shallower) Sky Blue Limestone and the lower (deeper) Chino limestone are mineralogically similar. The limestone is coarsely crystalline, associated with metamorphosed sediments, enveloped and cut by intrusive igneous rocks and contact metamorphic minerals, including large masses of intrusive microcrystalline quartz monzonite porphyry and quartz monzonite pegmatites. Country rock within the boundaries of the site consists of Perris quartz-biotite diorite that becomes granodiorite. Quartz monzonite pegmatites occur commonly as dikes in the porphyry and country rock and extended generally less than 2 or 3 feet into the limestone. The widespread contact rock is composed generally of grossularite garnet with and without diopside.

The shallower, Sky Blue Limestone is an arcuate shaped body, enveloped and intruded by quartz diorite and intruded by quartz monzonite porphyry. The body (prior to mining) is up to several hundred feet thick and dipped primarily east or northeast. Where the body was thinnest, the limestone was converted to contact rock. Two (2) facies were present within the limestone; a white limestone with localized yellow predazzite beds and a sky blue colored limestone present closer to the intrusive quartz monzonite porphyry and associated pegmatites.

The deeper, Chino Limestone is generally composed of alternating bands of yellowish predazzite and white crystalline limestone with widely disseminated graphite flakes. The unit dipped up to 45 degrees east, was at least 2,000 feet long, and had irregular upper and lower surfaces. Banding ranged from few inches to a few feet thick.

2.1.3 Local Faulting

The following publications and reports were reviewed to obtain information on local faulting within the site:

- Daly, John W., (1931), The Geology and Mineralogy of the Limestone Deposits

at Crestmore, Riverside County, California, dated 1931 (Daly, 1931).

- Woodford, A. O., Crippen, R. A., and Garner, K. B., (1941), Section Across Commercial Quarry, Crestmore, California, American Mineralogist, Volume 26, pages 351-381 (Woodford et al, 1941).

- ERM-West, Inc., (1991), Technical Evaluation 9/30/90 EPA FIT Report, Riverside Cement Company, Crestmore Plant, dated November 1991 (ERM-West Report).

A review of Plate 1 in the Daly report indicates that a northeast-southwest trending fault segment is mapped between the Commercial Quarry in the northeast and southwestern portion of the Crestmore Quarry to the southwest. The corresponding report text does not elaborate on this fault and the review suggests that Daly (i) identified a few small faults likely to have no particular significance regarding the site major geologic structure and (ii) Daly did not find any large faults in the area mapped west of the quarries.

The Woodford, et al, 1941 report refers to "a prominent fault oriented N50^{o}E 70^{o}SE" that extends into bedrock at Station 15 of Woodford, et al.'s Figure 3-Section "Across the Commercial Quarry, 1940". Additional information for this fault was not provided in the report.

Based on a review of the referenced publications, it appears that active faulting (Holocene or younger) is not present within the site.

2.2 HYDROLOGY

The site is located in the eastern end of the Jurupa Mountains on the south side of the San Bernardino Valley. The Santa Ana River drains the San Bernardino Valley towards the southwest and is approximately one-half mile east of the site. The ground surface elevations vary between approximately 820 feet above mean sea level (amsl) on the southern portion of the site to approximately 1150 feet amsl on the northern portion of the site.

Based on a review of the historical documents (discussed in later sections of this report), and the results of the recent investigation, groundwater flow in the shallow alluvial aquifer is likely towards the Santa Ana River, or towards the south to southeast. Groundwater is encountered in the wells onsite at depths between 60 and 135 feet

below ground surface (bgs). Wells screened in the Chino limestone may have different gradients, and it is likely that the groundwater flow direction in the limestone is influenced by the complex local geology and the historical subsurface mining activities.

3.0 REVIEW OF REGULATORY LISTINGS

3.1 REGULATORY DATABASE INFORMATION

A copy of regulatory database information was obtained from EDR in March 2016 and March 2017; the EDR reports are included in Appendix A. The site was identified in several state and federal agency databases. General information reviewed from the databases is provided below.

SEMS

The SEMS database lists the site as a "state-lead cleanup" that is not included in the National Priority List (NPL).

ENVIROSTOR

The ENVIROSTOR database indicates that the RWQCB and the USEPA are agencies that have been involved with the site. Potential Chemicals of Concern (COCs) are listed as PCBs and hexavalent chromium.

LUST

The Leaking Underground Storage Tank (LUST) database indicates the site status as "completed - case closed as of November 5, 1991". The lead agency is the Riverside County Local Oversight Program (LOP). Heating oil/fuel oil is identified as a potential COC.

AST

According to the AST database, the total AST storage capacity at the site is 5,000 gallons. The Certified Unified Program Agency (CUPA) for the site is Riverside County.

Several adjacent and surrounding properties were also identified in the regulatory databases. Based on distance, topographically cross-gradient or down-gradient relative to the site, and the non-violation status, none of the adjacent and surrounding properties are listed to have current or former releases of hazardous substances that are likely to impact the site at levels requiring regulatory clean up action.

3.2 FREEDOM OF INFORMATION ACT REQUESTS

Freedom of Information Act (FOIA) requests were submitted to the regulatory agencies. The results of the review are provided in Section 4.

4.0 REVIEW OF PREVIOUS INVESTIGATIONS/REGULATORY CORRESPONDENCE

4.1 US ENVIRONMENTAL PROTECTION AGENCY (USEPA) AND CA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC)

A Screening Site Inspection was conducted in September 1990 by Ecology and Environment Inc. (E&E) at the request of the USEPA to investigate the potential for metal impacts to groundwater resulting from the reported areas containing CKD placed with mine spoils/fill soils (E&E, 1990). Groundwater samples were collected for metals analyses from the Yeager Construction Company Well (YCC) south of the site (down-gradient well), and up-gradient at the El Rivino Country Club (ERCC) Well. Two soil samples were also collected from a suspected CKD-containing soil area. Both soil samples were analyzed for metals, and one of the samples was analyzed in accordance with the California Waste Extraction Test (WET).

The report issued by E&E concluded the following:

- Chromium was detected in soil containing CKD with a maximum concentration of 4.6 milligrams per kilogram (mg/kg).
- Lead was detected in soil containing CKD with a maximum concentration of 106 mg/kg.
- No metal concentrations tested for the WET evaluation exceeded the Soluble Threshold Limit Concentration (STLC).
- Groundwater flow direction was estimated to be from north to south.
- Concentrations of aluminum, chromium, and manganese in groundwater were elevated at the down-gradient YCC well with respect to the up-gradient ERCC well. However, due to potential variability in the groundwater gradient, and the reported background concentrations, the data may also represent a background condition.

To obtain additional information on the groundwater quality beneath the site, ERM-West installed and sampled two monitoring wells in the alluvium; MW-1 (located north of the Wet Weather Quarry) and MW-3 (located southeast of the Commercial Quarry). The results from the analyses are presented in the report, titled "Technical Evaluation 9/30/90 EPA FIT Report, Riverside Cement Company, Crestmore Plant", dated November, 1991 (ERM, 1991a).

ERM-West also reviewed the history of the CKD and soil placement at the site, and stated that the Wet Weather Quarry was the main CKD disposal area up until 1990, and that the Commercial Quarry, south of the site, was a secondary CKD disposal area utilized during the 1960's. The Commercial Quarry was again mined for limestone in the 1970's, and the CKD was recovered for a mill and kiln feed supplement as part of the mining operation. It is also reported that the available CKD was recovered in the Wet Weather Quarry up until the late 1980's after the available CKD had been recovered from the Commercial Quarry. ERM-West states that the majority of the CKD and off specification cement was recovered from the west central portion of Wet Weather Quarry.

ERM-West collected samples from MW-1, MW-3, Wells 60-1, 88-1, ERCC, and YCC for analysis. Groundwater test results indicated that total chromium concentrations did not exceed 13 micrograms per liter (µg/L), which was below the Maximum Contaminant Level (MCL) of 50 µg/l. ERM-West also indicated that the chromium concentrations at the down-gradient wells were only slightly higher than those at up-gradient wells and may be attributable to a number of factors unrelated to the presence of soil containing CKD.

The conclusions of ERM-West's 1991 report were reviewed by Bechtel Environmental, Inc. (Bechtel) in the June 1994 "Site Inspection Prioritization (SIP)" performed on behalf of the USEPA (Bechtel, 1994). This SIP summarized the previous findings from E&E and ERM-West, but did not formulate any conclusions as to the validity of ERM-West's 1991 Report. The SIP reiterated the finding that a release of chromium, aluminum, and manganese to groundwater had been established based on the analytical results from the YCC and ERCC wells presented in the September 1990 E&E report.

ERM-West reviewed Bechtel's findings in their October 1994 "Technical Review of EPA Site Inspection Prioritization", and provided the following summary (ERM, 1994):

- Chromium and aluminum concentrations were measured at higher concentrations in the soil background sample than in the CKD sample.
- CKD is a material which forms a cement-like mass when it comes in contact with water and creates a barrier to further water penetration or leaching of metals.
- Data was arbitrarily selected from the YCC and ERCC wells to show that a

release had occurred, and that the YCC well is not hydraulically down-gradient of the CKD-containing soil areas.

- Data from monitoring wells MW-1 and MW-3 are more representative of potential water quality impacts across the site because they were screened in the same alluvial aquifer up-gradient and down-gradient of the CKD-containing soil areas, and the concentrations of metals in groundwater did not confirm that the impacts were a direct result of leaching from the soil/CKD areas.

As part of their support for the CERCLA, DTSC conducted a preliminary assessment dated December 8, 2006 (DTSC, 2006). The Site Screening Assessment prepared by DTSC concluded the site was CERCLA eligible; however, no action was recommended by the agency. The DTSC did a subsequent screening assessment in 2009 with similar results (DTSC, 2009).

Copies of the documents referenced within this section are provided in Appendix B.

4.2 SANTA ANA REGIONAL WATER QUALITY CONTROL BOARD (RWQCB)

4.2.1 RWQCB Order Closeout

The RWQCB regulated discharges from the RCP of untreated industrial waste water to the North Riverside Canal, Jurupa Canal, and a gravel percolation pit (i.e. "Waters of the State" under Resolution 60-17, which was in effect from June 3, 1960 through July 9, 1976 (RWQCB, 1974). Resolution 60-17 established water quality objectives for the receiving waters and requirements for the periodic testing and reporting of discharges from the site.

In a July 27, 1973 letter, the RWQCB acknowledged RCC's sample results for the July 1973 wastewater monitoring event, in which hexavalent chromium was detected at 0.55 milligrams per liter (mg/L) (RWQCB, 1973). A re-sample was requested to confirm the previous sample result. The RCC resampled the discharge and provided the results to the RWQCB in a letter dated August 1, 1973 (RCC, 1973). The re-sampling results indicated that hexavalent chromium was reported at 0.5 mg/L. The RCC indicated in the above letter that a pump failure caused treated cooling water (likely containing an algaecide) to be inadvertently discharged into the stormwater effluent during the sampling event. The RCC indicated that a standby pump will be installed in case the circulating pump fails, and water additives for cooling water will be changed to reduce or eliminate the use of chromium.

Resolution 60-17 was superseded by RWQCB Order No. 76-78, which reflected new water quality standards adopted by the Santa Ana Region and established additional monitoring and reporting requirements for the RCC (RWQCB, 1976). At the time of its adoption, Order No. 76-78 identified two additional discharge streams that were not regulated under the previous resolution; a sanitary wastewater stream and a brine wastewater stream (from the Boiler Blowdown Pond).

Order 76-78 was superseded by Order 78-27, which prohibited the discharge of sanitary wastes to the septic system and required connection to the Rubidoux Community Services District by July 1, 1978 (RWQCB, 1978).

The Boiler Blowdown Pond was subject to the discharge requirements under Order 78-27. To close out the WDR under Order 78-27, RCC initiated a removal action and remediation of the Boiler Blowdown Pond. A Closure Plan and a Closure Report for the Boiler Blowdown Pond was prepared by ERM EnviroClean-West, Inc. on behalf of RCC in August, 1991 and May, 1995, respectively (ERM, 1991b, 1995). The report documents the remedial activities performed at the boiler blowdown pond, including the excavation of soils impacted by Total Petroleum Hydrocarbons (TPH) or exhibiting elevated conductivity relative to background. Excavated soils were stockpiled on-site and confirmation samples were collected from the bottom and the sides of the excavation. The samples were analyzed for TPH, total chromium, hexavalent chromium, and conductivity. As the excavation progressed, the RWQCB requested that confirmation samples only be tested for conductivity. The average conductivity of the final confirmation samples measured approximately 667.5 micromhos per centimeter (µmhos/cm). The excavation was backfilled with clay along with 45-mil-thick liner. The clay liner system was also designed to serve as a secondary containment for the AST.

In a letter dated June 15, 1995, the RWQCB notified RCC that the closure report for the former boiler blowdown disposal pond was approved and that the closure of the former pond was complete (RWQCB, 1995).

Order 78-27 was rescinded by Order 98-77 in 1998 because the discharges from the RCP were determined to be an insignificant threat to water quality (RWQCB, 1998).

Copies of the documents referenced within this section are provided in Appendix C.

4.2.2 RWQCB Correspondence-Groundwater Quality and CKD

A review of the information/correspondence related to groundwater quality and the CKD in soils at the site was performed to obtain additional information on the historical regulatory interaction and on the groundwater quality. The information review included groundwater reports and correspondence from regulatory files obtained under the FOIA.

To comply with the provisions of the California Code of Regulations (CCR), Title 23, Subchapter 15, RCC submitted the "Closure Plan for the CKD Disposal Area and Boiler Blowdown Pond" (ERM, 1991b) to the RWQCB on August 13, 1991. The document established rationale and procedures for closing the three locations at the RCP that had been used for CKD disposal (the Wet Weather Quarry, an area south of the Commercial Quarry, and an area north of the Crestmore Quarry). The proposed activities included covering each of the three CKD disposal areas with at least 12 inches of native overburden material and maintaining the cover until vegetation begins to establish. No additional capping was proposed to control infiltration because the hydraulic properties of CKD are similar to those of typical capping materials such as clay.

RCC requested from RWQCB concurrence of closure of the CKD disposal area in a letter dated June 6, 1994 (RCC, 1994). The previously referenced Bechtel SIP (Bechtel, 1994) indicates that the RWQCB toured the closed areas at the site in August, 1992 and considered the existing soil coverage of 8 to 24 inches satisfactory for vegetation. In addition, a review of the RWQCB letter dated July 6, 1994 (RWQCB, 1994) confirms that the RWQCB has no intention of increasing its involvement with the RCP, and that its primary purpose is to permit the discharge of the plant's wastewater treatment plant.

As outlined in Section 4.1, ERM-West installed two additional groundwater monitoring wells in 1991. The purpose of the well installation was to facilitate alluvial groundwater monitoring both up-gradient and down-gradient of areas where CKD was historically disposed.

ERM-West, Inc. provided RCC with an annual groundwater monitoring report dated December 4, 1996, summarizing the depth to groundwater in monitoring wells MW-1 and MW-3 and the laboratory results for groundwater samples (ERM, 1996). Groundwater depths ranged from 107 feet to 110 feet below the top of casing for MW-1 and 74 feet to 76 feet below the top of casing for MW-3. Groundwater samples were analyzed for metals, total dissolved solids, turbidity, alkalinity, chloride, color, fluoride, nitrate (NO3), odor, pH, specific conductance, and sulfates. Groundwater sample results

were compared for the three measured sampling events (June 11, 1991, April 6, 1994 and October 18, 1995) to USEPA and State of California drinking water maximum contaminant levels, and were measured below these levels.

Copies of the documents referenced within this section are provided in Appendix C.

4.3 RIVERSIDE COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH (RCDEH)

As discussed previously, numerous USTs were historically used at the site to support the cement plant operations. A review of a UST removal application dated June 1, 1987, indicates that RCC planned to remove a number of USTs in conjunction with their UST compliance program (RCC, 1987a).

The UST removal program included the decommissioning of the 6,000,000-gallon Bunker C fuel oil UST. Although the tank was viewed as an AST, the tank was classified and handled as a UST by RCDEH due to more than 10% of the tank system being underground.

According to a report prepared by ERM-West titled, "Report of Results for the Investigation of Subsurface Conditions at a Fuel Oil Storage Tank, Riverside Cement Crestmore Plant" (ERM, 1986), two slant borings were drilled at 30-degree angles (from vertical) to investigate soil conditions beneath the 6,000,000-gallon Bunker C fuel oil UST. Boring 1-C was advanced from the east side of the UST to a maximum depth of 34 feet bgs. Boring 2-B was advanced from the west side of the UST to a maximum depth of 39 vertical feet bgs. A total of five samples were collected at depths ranging from 28 feet to 38.5 feet bgs and analyzed for TPH. TPH was detected at 410 mg/kg in one sample collected at a depth of 28 feet bgs from boring 1-C. TPH was not detected (ND<50 mg/kg) in the other four samples collected.

Additional subsurface investigation work at the 6,000,000-gallon Bunker C fuel oil UST is summarized in the report titled "Investigation of Soil Conditions Below and Adjacent to the Fuel Storage Tank at the Riverside Cement Crestmore Plant, Riverside, California, March 24 – April 1, 1987" (ERM, 1987). Four vertical borings were drilled through the concrete floor of the UST and six soil samples were collected from the soil berm surrounding the UST walls to determine the vertical and lateral extent of potential soil impacts. Vertical borings were drilled to a maximum depth of 27.5 feet. Samples from the soil berm were collected near the surface using a clean trowel or a brass tube. Soil

samples were analyzed for TPH. The highest concentration of TPH (129,000 mg/kg) was detected in VB-1 at a depth of 20 to 20.5 feet. TPH concentrations at bottom of each boring (25.5 to 27.5 feet bgs) ranged from non-detect (<1 mg/kg) to 28 mg/kg.

Following the submittal of ERM's 1987 subsurface investigation report, the RCC prepared a letter on July 6, 1987 to advise the RCDEH on the status of closure activities for the 6,000,000-gallon Bunker C fuel oil UST (RCC, 1987b). This letter indicates that RCC had coordinated with the RCDEH and the California DTSC Alternative Technology Division (ATD) to select the optimal alternative for managing contaminated soils that would be generated during UST removal and over-excavation. According to the letter, the RCC concluded that the contaminated soils were chemically similar to a raw material normally used for manufacturing cement clinker, and that the contaminants themselves were a fuel that is routinely used to fire the kilns. Based on these findings, the RCC indicated that they were proceeding to install equipment necessary to insufflate (blow) the contaminated soils into their rotary kilns as a raw material.

The RCC provided a second letter on August 4, 1987 to update the RCDEH on their management of contaminated soils generated during removal and over-excavation of the 6,000,000-gallon Bunker C fuel oil UST (RCC, 1987c). This letter indicated that the process of insufflation could not be completed as intended before the Grey Kiln was to be shut down in August 1987. RCC management agreed to postpone the shutdown until December 1987 in order to continue processing this material, but the additional time was still insufficient to process all of the contaminated soils at the intended rate. As an alternative, the RCC proposed to begin adding the contaminated soils at a faster rate until the Grey Kiln was shut down or destroyed in the process. As a result, the RCC stated that the final cement product would be well below industry specifications and would need to be stockpiled and blended in small quantities with normal-quality cement products. In the event that this approach was unable to reclaim all contaminated soils, the RCC proposed to burn the remaining soils in their kiln to remove residual TPH. If all other proposed methods were determined to be infeasible, the RCC proposed that the final option would be to back-haul the contaminated soils to their Oro Grande Plant and insufflate into the kilns at that location as a raw material.

In a letter to the RCDEH dated September 23, 1987, the RCC summarized all operations conducted to date regarding closure of the 6,000,000-gallon Bunker C fuel oil UST (RCC, 1987d). The RCC indicated that approximately 70,500 tons of soil was excavated from

the area adjacent to and beneath the UST, and confirmation samples were analyzed for TPH. TPH concentrations in soils left in-place ranged from non-detect (<1 mg/kg) to 495 mg/kg. Soil with lower TPH concentrations (approximately 24,500 tons) was blended with Capo clay and consumed in the grey cement kiln during the normal course of manufacturing operations. Soil with higher TPH concentrations (approximately 2,000 tons) was initially insufflated at the Grey Kilns at a rate that would not substantially degrade the quality of the final product. Upon realizing that the remaining soils would not be consumed at this rate before the kiln was scheduled to be shut down, the RCC began adding contaminated soils at a higher rate and producing below-grade clinker that would need to be blended with good quality clinker to achieve industry specifications. This method was used until the Grey Kiln was damaged beyond repair, at which point approximately 44,000 tons of contaminated soils remained to be processed. The RCC restated that their proposed final option would be to back-haul these remaining soils to their Oro Grande Plant and continue insufflating at that location as a raw material.

Since the proposed insufflation at the Oro Grande Plant would require special permitting through the San Bernardino County Air Pollution Control District, RCC conducted additional characterization of the stockpiled soils to determine whether they could be handled and transported safely. These soils were stockpiled in two locations - one location near the east end of the Grey Kilns, and the other location near a belt conveyor southeast of the 6,000,000-gallon Bunker C fuel oil UST excavation. As summarized in a letter report from ERM dated October 14, 1987 (ERM, 1987b), a total of four composite samples were collected from the two soil stockpiles and analyzed for TPH, priority pollutant organics, priority pollutant metals, and toxicity (fish bioassay). Analytical results indicated that the soils contained between 1,900 mg/kg and 17,300 mg/kg TPH, priority pollutant organics were limited to low-level detections of toluene (575 µg/kg) and phenanthrene (6 ug/kg), metals concentrations were similar to those of natural clays, and fish toxicity was below the detection limit. ERM's conclusion was that the soils did not exhibit any characteristics that would lead the soil to be classified as hazardous under Title 22 of the California Administrative Code.

RCDEH notified RCC in a letter dated November 4, 1987 that the last confirmation sampling results for the 6,000,000-gallon fuel UST showed no appreciable impacts and that No Further Action (NFA) was required (RCDEH, 1987).

A report titled, "Final Report, Removal of Storage Tanks, Riverside Cement Company

Facility, Riverside, California" was prepared by Cal Tank Testing, dated March 1988 (CTT, 1988a) that summarized the removals of one 550-gallon waste oil UST (located approximately 10 feet southwest of the Truck Maintenance area; Figure 2) and one 10,000-gallon diesel UST (located approximately 70 feet southwest of the Kiln Feed Silos at the former Grey Cement Plant; Figure 2). The top and bottom of the 550-gallon UST were measured at 4 feet and 8 feet bgs, respectively. The top and bottom of the 10,000-gallon UST were measured at 3 feet and 11 feet bgs, respectively. Confirmation samples were collected by LOK Environmental, Inc., from the sides of the excavation for the 550-gallon UST, and from the bottom and sides of the excavation for the 10,000-gallon UST. Confirmation samples were analyzed for TPH and two samples below the 550-gallon UST were analyzed for lead. Laboratory results showed the TPH ranged from 57 to 1,000 mg/kg in the excavation for the 550-gallon UST and 34 to 15,000 mg/kg in the excavation for the 10,000-gallon UST. Visual staining was not observed in the excavation or excavated soils, and therefore the excavations were backfilled with the excavated soil and imported soil.

The document titled "Final Report, Removal of Storage Tanks, Riverside Cement Company Facility, Riverside, California", dated May 1988 (CTT, 1988b) summarized the removal of the 10,000-gallon diesel UST located north of the Garage (Figure 2). The top and bottom of the UST were 5 feet and 13 feet bgs, respectively. The initial excavation was completed to a depth of 13 feet bgs, and LOK Environmental, Inc. collected confirmation samples for TPH analysis at depths of 15 and 17 feet bgs. TPH concentrations at 15 and 17 feet bgs were 17,000 and 5,400, respectively. Following verbal communication of these results to the RCDEH, additional excavation was conducted to remove soils to a depth of 36 feet bgs. LOK Environmental, Inc. collected confirmation samples for TPH analysis from the over-excavation. The TPH concentration in the sample collected at the base of the excavation (36 feet bgs) was 550 mg/kg. Approximately 150 cubic yards of impacted soil was added to the stockpile containing soils from the removal of the 6,000,000-gallon Bunker C fuel oil UST (see section regarding 6,000,000-Gallon Bunker C fuel oil UST, above). Approximately 250 cubic yards of imported soil was used to backfill the excavation.

In a letter dated August 31, 1988, RCC summarized a recent meeting with the RCDEH regarding their intentions for the disposition of stockpiled soils from the closure of the 6,000,000-gallon Bunker C fuel oil UST and 10,000-gallon diesel UST north of the Garage (RCC, 1988). The letter indicated that the RCC would be evaluating the suitability of the

soil stockpiles for use in road mix for paving at the site. The RCC provided results from this evaluation in a follow-up letter to RCDEH dated January 18, 1989, which indicated that less than 100 mg/kg of the total oil and grease content was extractable (RCC, 1989). Based on these findings, RCC requested confirmation in writing that the stockpiled soil could be handled as typical product from a cold process asphalt plant and that no additional permits or manifesting would be required for transportation. The RCC also requested clarification on the type of information and level of detail required by the RCDEH regarding final disposition of the road mix.

The RCDEH notified RCC in a letter on February 10, 1989 that soil stockpiles could be used as raw material for cold mix asphalt, and that further permitting would not be required for transporting the material to appropriate use sites (RCDEH, 1989).

The RCDEH issued an NFA letter on November 5, 1991, to RCC confirming the completion of site investigation and remedial action for the USTs at the site (RCDEH, 1991). The letter does not specify which USTs were included as part of the completion and no further action recommendation.

RCDEH notified RCC via letter on January 16, 1992 that the department did not issue operating permits for the 6,000,000-gallon Bunker C fuel oil UST at the site (RCDEH, 1992). The only permit issued was for the removal of the above referenced USTs at the site in the 1987 application.

The White Kiln process area measured a release in August, 1993 as summarized in the July 7, 1995 report prepared by Ryan-Murphy Incorporated (RMI) regarding the field investigation for the white kiln pipeline leak (RMI, 1995a). The report states that in August 1993, a pipeline leak was discovered from an underground pipeline connecting the 210,000-gallon No. 6 fuel oil AST to supply pumps for the white kilns. The RCDEH notification of release dated August 20, 1993 states that "approximately 750 gallons was discharged" and "700 gallons were removed by Shield's Oil" (RCDEH, 1993). Nine soil borings were advanced using a Mobile B-53 drill rig and 8-inch hollow stem augers to a maximum depth of 45 feet near the pipeline leak and diesel pumping station. Two borings were advanced horizontally using a hand auger under the boiler building to a depth of 6 to 7 feet. Soil samples were collected at 5-foot intervals and analyzed for Total Recoverable Petroleum Hydrocarbons (TRPH) using USEPA Method 418.1. Three soil samples with the highest concentration of TRPH were also analyzed for TPH and

BTEX as requested by the RCDEH in their work plan approval letter to the RCC dated December 12, 1994 (RCDEH, 1994). For soil left in place, one soil sample was collected and analyzed for Toxicity Characteristic Leaching Procedure (TCLP). Laboratory results for samples collected under the boiler building detected TRPH concentrations ranging from non-detect to 19 mg/kg. Laboratory results for samples collected at Borings B-1 and B-2 (near the pipeline leak) detected TRPH concentrations ranging from non-detect to 30,000 mg/kg. The highest concentration of TRPH was detected in Boring B-1 at a depth of 10 feet and a TCLP analysis of 14 mg/L. Laboratory results for samples collected in Boring B-7 (near the diesel pumping station) detected diesel concentrations ranging from 9,800 to 12,000 mg/kg to a depth of 45 feet.

RMI provided the RCDEH a December 11, 1995 letter summarizing the remedial excavation for hydrocarbon impacted soil related to the former white kiln fuel oil pipeline (RMI, 1995b). Impacted soil was excavated and temporarily stockpiled on-site and re-used as part of the cement manufacturing process. The excavation dimensions were approximately 59 feet in length, 23 feet in width, and 9 to 13 feet in depth. Confirmation samples were collected from the bottom, ends, and sidewalls of the excavation. Samples were analyzed for TRPH by USEPA Method 418.1 with concentrations ranging from non-detect to 12,000 mg/kg. The letter indicated that current site conditions satisfy HMMD/RWQCB criteria for site closure and requested no further action.

RMI provided the RCDEH a March 21, 1996 letter summarizing the monitoring well installation for the evaluation of potential free product in the area of the white kiln pipeline leak (RMI, 1996). A four-inch diameter PVC well was installed to a total depth of 13 feet below grade, the depth at which the boring was terminated due to refusal on granite bedrock. . The screened interval was constructed with 0.02 slotted screen and number three filter pack sand from approximately 5 to 13 feet below grade. The well was monitored for free product during four monitoring events over a three-month period. No free product was detected during the monitoring events.

RCDEH notified RCC in a letter dated May 6, 1996 that the department received and reviewed the report prepared by Ryan-Murphy, Inc. dated March 21, 1996 (RCDEH,1996). The report summarized the well installation and monitoring procedures for groundwater beneath the white kilns pipeline leak. RCDEH stated no further action was required.

Decon Environmental Services provided certificates for the UST removals at the site in a letter dated July 31, 1997 (DES, 1997). The USTs removed included two 12,000-gallon diesel USTs at the White Cement Plant and one 10,000-gallon gasoline UST northwest of the Garage Storeroom (Figure 2). Analytical results provided in this letter indicated that soils left in-place at the 12,000-gallon diesel USTs contained oil-range TPH at concentrations ranging from non-detect (< 10 mg/kg) to 79 mg/kg. At the 10,000-gallon gasoline UST, gasoline-range TPH was not detected (<1 mg/kg) in soils left in-place. A UST Closure Inspection Report, UST Permit for Closure, and UST Closure / Abandonment Application from RCDEH are included as attachments in the letter.

RCDEH notified RCC in a letter dated September 3, 1997 that the RCDEH received the closure report by Decon Environmental Services regarding the removals of two 12,000-gallon diesel USTs and one 10,000-gallon gasoline UST (RCDEH, 1997). RCDEH confirmed that no further action was required.

RCDEH notified RCC Maintenance in a letter dated July 1, 1999 that the RCDEH received soil sample results collected below a fuel UST on May 25, 1999 (RCDEH, 1999). RCDEH confirmed that no further action was required.

A UST Closure Report prepared by Altec Testing and Engineering, Inc. dated June 1999, was submitted to the RCDEH (Altec, 1999). The report indicated that on May 25, 1999, one 1,000-gallon diesel UST and one 2,000-gallon gasoline UST located west of the Garage (Figure 2) were removed from the site. After the removal of the USTs, confirmation samples were collected from the excavation and stockpiled soil. Soil samples were analyzed for organic lead, TPH-gasoline, TPH diesel, BTEX and Methyl Tertiary Butyl Ether (MTBE). All laboratory results were non-detect. The excavations were backfilled with excavated and imported soil using a backhoe, compacted with a wheel attachment and capped with asphalt. The UST Closure Inspection Report, UST Permit for Closure, and UST Closure / Abandonment Application from RCDEH are included as attachments in the report.

Copies of the documents referenced within this section are provided in Appendix D.

5.0 HISTORICAL SITE ACTIVITIES

Historical documents were reviewed to obtain additional information on the history of the site. Files were provided from map rooms at RCP for review, along with discussions with site contacts (Mr. Pat Crites - Site Manager for RCC).

5.1 HISTORICAL USGS TOPOGRAPHIC QUADRANGLES

Historical USGS Topographic Quadrangles were reviewed for the years 1896, 1898, 1901, 1943, 1953-1954, 1954, 1967, 1973, 1980, and 2012. The 1896 and 1898 topographic maps show the site and immediate vicinity as undeveloped land with two elevated areas of approximately 1100 feet and 1150 feet amsl. Three streets surround the site are likely El Rivino Road on the north, Agua Mansa Road on the south, and Rubidoux Boulevard on the west. The Santa Ana River is labels and visible east and south of the site. A small tributary stream is observed along the site's western border.

The site is shown as undeveloped in the 1901 topographic map with the exception of new street additions in the south. The area of Riverside comprising the site is labeled "Stearns". The 1943 to 2012 topographic maps show the site as being a "cement plant", with the area labeled as "Crestmore". Railroad lines and spurs are located on the western end of the site. A blue water rectangular retention area is shown north of the tracks and the plant. A canal is labeled to the south along Aqua Mansa Road. Quarrying appears to be ongoing to the southwest, with the southwest peak quarried to elevation 975 amsl.

In the 1953-1954 topographic map and later years, the term "Quarry" or "Quarries" is used to identify depressions in the south and southeast of the site, and two railroads in the south and southeast of the site are identified as "Pacific Electric" and "Union Pacific," respectively. The "Wet Weather Quarry" southeast of the site is shown with water and is labeled "Crestmore Quarry". An "Oil Tank" is listed north of the plant and the tracks.

The 1954, 1967, 1973, and 1980 topographic maps show increasing residential and industrial developments in the surrounding vicinity. The 2012 topographic map shows the site in its current configuration. Copies of the topographic maps are provided in Appendix E.

5.2 CITY DIRECTORIES

A City Directory Abstract was obtained from EDR. The City Directory Abstract is a review of available business directories, including city, cross-reference, and telephone directories, at approximately five-year intervals for the years spanning 1921 through 2013. The following listings were provided for the site:

- 1970: American Cement Corp, Land Paul B, Riverside Cement Co, Riverside Cement Transportation Department
- 1990: CDK Contracting, Crestmore Federal Credit Union
- 1996: California Caddle Feeders
- 2001: Budcr 11 DS, Crestmorediv, MKTG Dept TXIRiversdcement, Purchasing, Transloading CCF, TX IRIV 0 SD Cement
- 2002: ORO Grande Federal Credit Union
- 2003: CCF, Crestmore DIV, ORO Grande Federal CRDT Union
- 2013: Riverside Cement Co

Commercial, industrial, and light manufacturing businesses were listed at adjoining and surrounding properties. A copy of the City Directory Abstract is provided in Appendix E.

5.3 AERIAL PHOTOGRAPHS

Aerial photographs were reviewed for the site and surrounding areas for the years 1938, 1948, 1953, 1966, 1968, 1974, 1985, 1990, 1995, 2005, 2009, 2010, and 2012. The site was occupied by the cement manufacturing plant in 1938 and surface mining/excavation is apparent in the south side of the site. The center of the site is occupied by buildings, an open area, and two rectangular depressions.

The 1948 aerial photograph depicts a depression with liquid, which is likely to be the Wet Weather Quarry in the southeast portion of the site. A circular tank appears in the center and is adjacent to one of the rectangular depressions mentioned above. A third rectangular depression also appears in the center. Residential buildings are depicted in the northeast end of the site.

The 1953 aerial photograph depicts that surface mining/excavation has continued in the southern end and south of the site. Materials appear to be stockpiled within an open area in the center of the site, with apparent disturbance on the western end of the site. Residential development and buildings are shown in the northeast end of the site.

The 1966 aerial photograph shows that surface mining/excavation has continued in the southern end of the site. The cement material storage bays and the gray and white kilns have been constructed on the eastern end of the site. Regrading and filling operations are present throughout the southerly two-thirds of the site. A road leading to the underground mine south of the site (Crestmore Mine) is shown south of the site.

The 1968 aerial photograph depicts that the site is relatively unchanged compared to the 1966 aerial photograph. The 1974 aerial photograph depicts that surface mining/excavation has continued south of the site. One of the rectangular depressions in the center of the site is not shown.

The 1985 aerial photograph depicts surface mining/excavation south of the site. Another depression likely the Commercial Quarry is shown southeast of the site and appears to hold liquid. The Wet Weather Quarry is onsite and adjacent to the north; however, limited liquids are observed and a dam or earth structure appears to separate the two quarries. Of the three rectangular depressions shown in the center of the site in previous aerial photographs, only the depression adjacent to the circular tank is shown.

The 1990 aerial photograph depicts that surface mining/excavation has continued south of the site. The Wet Weather Quarry onsite does not appear to possess liquid, and the Commercial Quarry to the south of the site appears to have less liquid than the 1985 photograph. The circular tank and the adjacent rectangular depressions are not shown in the aerial photograph. Meanwhile, Crestmore Mine appears to hold liquid as a result of mine flooding in the late 1980's, and is a large north-south trending lake.

The site appears relatively unchanged in the 1995, 2005, 2009, 2010, and 2012 aerial photographs.

Surrounding properties consist of agricultural land from 1938 to 1966. A golf course is visible north of the site in 1966 until 2009. Industrial development is depicted south of the site beginning in 1966, which continues southwest of the site beginning in 1974, and in the southeast and east beginning in 2005. Surrounding properties are characterized by residential use to the west and northeast. Copies of the historical aerial photographs are included in Appendix E.

6.0 SITE VISITS

6.1 SITE OBSERVATIONS

Numerous site visits were performed on multiple occasions between April, 2016 and May, 2017. The owner's site representatives were Pat Crites (Mr. Crites) and William Brown (Mr. Brown). The following summarizes observations made during the various site visits and conversations with Mr. Brown and Mr. Crites.

The northern portion of the site contains undeveloped land with dense vegetation consisting of grass, shrubs and trees, and a paved entrance road with a guard shack. A one-story building constructed of wood and mortar was observed and subsequently identified as an abandoned electrical substation. The inside of the abandoned substation was filled with wood, plastic, and metal debris including paint cans, wiring, nails, plywood, and pipes. According to Mr. Pat Crites, to the west of the abandoned substation was a residential home that was destroyed during a fire and subsequently demolished. An air/dust monitoring station was observed in the northeast corner of the site. The former material storage area is surrounded by a dense tree line and berms to the north and east. Mr. Pat Crites indicated that the berms had been created from underground mine spoils.

The western portion of the site contains an entrance road, storage silos, a warehouse (Pack House), part of the former white cement manufacturing plant, and one to two-story administration buildings (Truck Garage, Transportation Office, Storehouse, and Garage). The Pack House contained various inoperative mechanical equipment. Former storage silos for white and grey cement are adjacent to the Pack House along with a former stockhouse and warehouse. The former white cement manufacturing plant has two white cement kilns, an open warehouse for clinker storage, boiler house, two control houses, two bag houses, and storage silos. Manholes were observed within the former white cement manufacturing plant and are associated with storm drains that traverse the area. Above-ground beltways and pipes also traverse the white cement manufacturing plant.

Mr. Pat Crites stated that material from the crushing plant was transferred via beltways to the white cement manufacturing plant for processing and the finished cement product was transferred to the Pack House via pipes. Transformers and air compressors were observed in the former white cement manufacturing plant near the

control houses and storage silos.

A truck garage is currently being used as the main administration building and to store various materials and equipment. The truck garage was formerly used to maintain company vehicles and had pits that were used to access the underside of vehicles for maintenance. The storehouse is a one-story warehouse for materials and equipment storage. A concrete pad was observed at the location of a former propane AST. A stormwater collection and off-site discharge point was observed in the southwest corner of the site. Mr. Pat Crites indicated that stormwater samples were collected at this location during rain events. He also identified sanitary leach lines near the southwest corner of the site.

The southern portion of the site contains part of the former white cement manufacturing area, one-story warehouses for clay and clinker storage, a 210,000-gallon fuel oil AST, storage silos, rock crushing plant, stockpiles, undeveloped land, and a beltway to the underground mine that had collapsed. The clay storage building is a one-story warehouse with storage silos adjacent to the building. Clay stockpiles, bags of cement, and empty 55-gallon drums were observed inside the clay storage building. The former 210,000-gallon AST was used to store fuel oil for the white kilns and is now inside a secondary containment constructed of concrete and underlain with plastic and clay. The rock crushing plant received raw materials for crushing and connects to the underground mine through a tunnel and a beltway. Stockpiles of soil and white clinker were observed along the southern portion of the site. Mr. Pat Crites commented that these stockpiles consisted of spoils from the underground mine. Transformers were observed near the crushing plant and clay storage building.

The central portion of the site contains the former grey cement manufacturing plant, vehicle parking spaces, the former hazardous waste storage area, the main electrical substation, two water wells (60-1 and 88-1), the crushed rock storage area, the former spray pond, and former material storage area. The former grey cement manufacturing plant includes storage silos, motor control house and a mill motor house. Two ASTs and two grey kilns were also formerly located at the grey cement manufacturing plant. Soil and concrete stockpiles were observed underneath and adjacent to the former grey kilns. Transformers and air compressors were observed within the former grey cement manufacturing plant.

Beltways and pipes used to transfer raw material from the former material storage yard traverse the former grey manufacturing plant. Product from the former grey cement manufacturing plant was transferred via pipes to the Pack House. Vehicle parking spaces were paved with asphalt and adjacent to open metal sheds. The hazardous waste storage area has a concrete pad and is surrounded by a chain-link fence. The former spray pond storage area has a concrete pad and is surrounded by a chain-link fence. The storage area has been used to contain drums and equipment.

The southeast corner of the former spray pond storage area has a concrete suction sump with a wooden cover. At the time of the initial site reconnaissance, the suction sump contained water along with metal and wooden debris.

The main electrical substation is a one-story building and houses electrical equipment. Production Well 60-1 provides potable water for the site and Production Well 88-1 is non-operational. Mr. Pat Crites was not aware if Production Well 88-1 had been closed or abandoned properly and commented that the bottom of Production Well 88-1 was completed within an underground mine room. The former material storage area contains beltways, mechanical equipment, two switch houses, and one former AST.

The general locations of the site features are shown on Figure 2

Manholes to storm drains are present throughout the property. Four wells (in addition to the monitoring wells) were observed onsite, including Well 88-1 near the former grey cement manufacturing plant, Well 60-1 north of the grey cement manufacturing plant, and two possible irrigation wells in the northwestern portion of the site, in the vicinity of the proposed Building 4. Production Well 60-1 is reportedly still in operation and currently provides water for the site.

Transformers were observed throughout the site. The transformers were not labeled as containing PCBs. Mr. Crites noted that all transformers had been emptied and tested to be free of PCBs in the 1980s. The locations of the transformers observed at site are shown in Figure 2.

Drums were observed during the various site visits. Approximately 100, 55-gallon drums containing 2½ and 1½-inch diameter balls of white clinker were located south of the spray pond storage area and approximately 120, 55-gallon drums containing 2½ and 1½-inch diameter steel balls were located in the former grey cement manufacturing

area.

East of the maintenance warehouse shop was a concrete lined former hazardous waste storage area and the Spray Pond Storage Area. The hazardous waste storage area was empty except for standing water believed to be from recent rains. The spray pond storage area had pipes, storage containers, empty 55-gallon drums, machinery, and other miscellaneous equipment.

A suction sump was located in the southeast corner of the spray pond storage area, which contained water and debris consisting of wood, clothing, plastic bags, and metal. The suction sump was a concrete basin that measured approximately 10 feet wide, 20 feet long, and 10 feet in depth with a cover constructed of wooden planks. An inlet/outlet was located on the southeast corner of the suction sump.

A 10-feet by 10-feet stormwater sump with an inlet/outlet was also located in the northeast corner of Parcel 41 and was empty.

Two ASTs were observed near the Gray Finish Mill Feeder. Posted signs stated that the ASTs had contained diethylene glycol (DEG) and Sylvantal D30LR (Tall Oil). The DEG AST was approximately 12,000 gallons, and the Tall Oil AST was approximately 10,000 gallons. Both of the ASTs were out of service and were labeled "emptied/cleaned on 12/2015."

6.2 OFFSITE OBSERVATIONS

The site is bounded on the west by Rubidoux Boulevard, northwest by residential properties, and an ascending slope in the west. A commercial property (Skanska) is adjacent to the site in the southwest corner. The site is bounded on the north by El Rivino Road followed by an auto-body repair shop (Prestige Paint and Collision) in the northwest corner, a catch basin and former golf course in the north, and residential property in the northeast corner.

The site is bounded on the east by Hall Avenue followed by undeveloped property in the northeast corner. A commercial property (Aramark Uniform Services) and undeveloped property are adjacent to the site in the east. Commercial property (Earthworks Soil Amendment) is adjacent to the site in the southeast corner.

The site is bounded on the south by the Crestmore Lake, and mined/fill areas relating to

the mining/quarrying of the Crestmore Mine and the Commercial Quarry, Agua Mansa Road is located south of the Crestmore Lake/Mine parcel, followed by commercial property (County of Riverside Household Hazardous Waste Facility) in the southeast corner and commercial property (Burrtec Waste Industries) in the south.

7.0 POTENTIAL AREAS OF INTEREST (AOIs)

7.1 SUMMARY OF POTENTIAL AREAS OF INTEREST (AOIS)

Features identified at the site during the preliminary assessments are summarized on Figure 2. Based on the information collected during the preliminary assessments, the following Areas of Interest (AOI) were evaluated for further investigation:

- Areas with Soil Containing CKD (AOI #1);
- USTs (AOI #2)
- White Kiln Pipeline and Diesel Pump (AOI #3)
- Former Boiler Blowdown Pond (AOI #4)
- Former Spray Pond (AOI #5)
- Former Sag Pond (AOI #6)
- Hazardous Waste Storage Area (AOI #7)
- Sewer Alignments (AOI #8)
- Settling Area (AOI #9)
- Major Fill Piles or Berms (AOI #10)
- Former/Existing Transformers (AOI #11)
- Stormwater Retention Basin (AOI #12)

7.2 DESCRIPTION OF AOIS

7.2.1 Area of Interest #1 – CKD-Containing Soil Areas

As described above operations at the cement kilns generated CKD as a by-product. Up to approximately 250,000 tons of CKD was reportedly generated, removed from the kilns, and placed as standard practice with soil/mine spoils in fill areas throughout the site. Three distinct CKD areas within the development parcel were identified by ERM-West (ERM, 1991a) and are shown on Figure 2.

CKD and mine spoils/fill was placed in the Wet Weather Quarry and the Commercial Quarry until the 1970s. In the 1970s and 1980s, CKD was recovered from these areas for use as a mill / kiln feed supplement. CKD recovery in these areas was discontinued in 1987. It is reported that the majority of CKD was recovered from the Commercial Quarry, and the soil containing CKD remaining at the Wet Weather Quarry was capped and covered in 1990.

CKD was selected as an area of interest due to uncertainties in the composition of CKD generated at the site. The composition of CKD depends on the composition of raw materials used as feedstock in the manufacturing process, and therefore varies among cement manufacturing facilities. However, a common feature of CKD is that it contains higher concentrations of heavy metals than the raw feed materials. CKD was historically regulated as a hazardous waste due to its alkaline nature, but it is no longer regulated as a hazardous waste.

7.2.2 Area of Interest #2 – Former USTs

USTs at the site have been permitted, managed, and/or removed under the oversight of the RCDEH. Nine USTs were removed and closed between 1988 and 1999. Documentation at the RCDEH suggests that the USTs were closed in accordance with regulatory requirements; however, documentation was not available for three of the USTs, as discussed below.

Former 10,000-Gallon Diesel UST #1

The closure report prepared by Cal Tank Testing for this UST (located approximately 60 feet northwest of the Garage; Figure 2) indicated that residual TPH impacts (up to 17,000 mg/kg) were present beneath the fill tube at the eastern end of the UST and that concentrations progressively decreased to 440 mg/kg at 36 feet bgs. Impacted soils were removed to a depth of 36 feet bgs, and it was concluded that residual impacts potentially below the depth of the excavation were likely below applicable RCDEH action levels (CTT, 1988b).

Former 10,000-Gallon Diesel UST #2

The closure report prepared by Cal Tank Testing for this UST (located approximately 70 feet southwest of the Kiln Feed Silos at the former Grey Cement Plant; Figure 2) indicated that residual TPH impacts (up to 15,000 mg/kg) were present at a depth of 13 feet (2.5 feet below the bottom of the UST) beneath the north end of the UST. Deeper sampling was precluded by a hard layer at approximately 13 feet bgs. The report concluded that vertical migration of TPH would have been limited by the hard layer below the UST (CTT, 1988a).

Former 550-Gallon Waste Oil UST

The closure report prepared by Cal Tank Testing for this UST (located approximately 10 feet southeast of the Truck Maintenance area; Figure 2) indicated that residual TPH (up to 1,000 mg/kg) and lead (up to 3.3 mg/kg) concentrations were present at a depth of 13 feet (five feet below the bottom of the UST). Follow-up samples collected at a depth of 15 feet (seven feet below the bottom of the UST) indicated that TPH and lead concentrations diminished to 27 mg/kg and 1.9 mg/kg, respectively. It was concluded in the report that the releases were likely associated with overfill and spillage and the lateral and vertical extent of impacts were limited (CTT, 1988a).

7.2.3 Area of Interest #3 – White Kiln Pipeline Release

In August 1993, a leak was discovered from an underground pipeline connecting the 210,000-gallon No. 6 fuel oil AST to supply pumps for the White Kiln. Nine soil borings were advanced to depths of up to 45 feet near the pipeline leak and diesel pumping station, and two borings were advanced horizontally using a hand auger under the boiler building to a depth of 6 to 7 feet bgs (RMI, 1995a).

A Site Assessment Report was prepared by Ryan-Murphy, Inc. in July 1995 to summarize the field investigation for the White Kiln Pipeline Release (RMI, 1995b). This report concluded that TPH released from the pipeline appeared to be localized within the piping alignment, but that the diesel pumping station had impacted soils to a depth of at least 45 feet bgs at Boring B-7 in the vicinity of the pumping station footprint. Excavation activities were conducted in November 1995 to excavate soils in the vicinity of the White Kiln Pipeline Release, but it was concluded that excavation was not feasible due to accessibility issues beneath the pump house. A Toxicity Characteristic Leaching Procedure (TCLP) analysis was conducted on the impacted soils from Boring B-7 and indicated a TPH (diesel) concentration of 1.1 mg/L in the sample. Based on these results and the interpretation that impacts were localized in the vicinity of Boring B-7 (underlain by granite bedrock), the impacted soils were left in place to allow the natural attenuation processes to remediate the soil.

7.2.4 Area of Interest #4 – Former Boiler Blowdown Pond

The boiler blowdown pond received blowdown water from 1985 to 1990. The pond was lined with plastic and covered with clayey soil, and measured approximately 50 feet in length, 30 feet in width, and 4 feet in depth. Soil samples collected from within the

pond by ERM prior to closure indicated elevated levels of conductivity and concentrations of total chromium. Based on this data, the RWQCB required remediation of these soils.

In May 1995, ERM prepared a closure report that documented remedial activities and confirmation sampling. Remedial activities for the boiler blowdown pond included excavating up to 2 feet of soil from the perimeter berm and base of the pond and removing the plastic liner. Following excavation activities, the pond was reconstructed using locally-available clays and a new plastic liner to provide secondary containment for the fuel oil AST (decommissioned) located south of the pond (ERM, 1995). On June 15, 1995, RWQCB notified RCC that closure of the former boiler blowdown pond was complete (RWQCB, 1995). The location of the former boiler blowdown pond is shown in Figure 2.

7.2.5 Area of Interest #5 – Former Spray Pond

The spray pond was a large concrete basin designed to reduce the temperature of cooling water before being returned to cooling systems at the facility. Warm water entering the spray pond was pumped through a network of horizontal piping and sprayed into the air through vertical nozzles mounted above the pond surface. The reduction in water temperature was achieved primarily through evaporative cooling. A suction sump is located in the southeast corner of the concrete basin. At the time of the site visit, the sump contained water and debris consisting of wood, clothing, plastic bags, and metals. The location of the former spray pond and suction sump are shown in Figure 2.

7.2.6 Area of Interest #6 – Former Sag Pond

The former Sag Pond was identified based on a map titled "Wells and Major Water Lines, Crestmore Plant and Vicinity" by RCC, dated January 1985; however, no information was provided regarding the usage and as-built construction of the pond. Based on a review of historical aerial photographs from 1948 to 1974, a depression was present containing water periodically where historical maps have identified the former Sag Pond location. The location of the former Sag Pond is shown in Figure 2.

7.2.7 Area of Interest #7 – Hazardous Waste Storage Area

A fenced Hazardous Waste Storage Area (HWSA) was identified that included a

concrete pad where waste oil, waste grease, waste solvents, and empty drums were stored. A sump was identified at the southwest corner of the HWSA. The location of the HWSA is shown in Figure 2.

7.2.8 Area of Interest #8 – Sewer Alignments

A review of as-built drawings during the field activities identified two sewer lines serving the mining and manufacturing areas of the facility. There is no historical information suggesting that sewers were used to dispose of chemicals at the site. Documents obtained from Martin Marietta indicate that the facility operated under a Spill Prevention, Control, and Countermeasures Plan as early as 1994 (Miller, 1994), and maintained a Hazardous Materials Business Plan as early as 1992 (RCC, 1992). However, the site has a long operational history and subsurface characterization was warranted at these locations due to the potential for leakage from the sewer lines and/or migration of contaminants through the fill materials within the sewer alignment.

7.2.9 Area of Interest #9 – Settling Areas

A map obtained during the RWQCB file review identified four areas at the site where pooling of surface water could occur (RWQCB, 2000). Although the origin of this map is unknown, it appears to reflect prior agency inquiry regarding sediment transport and deposition related to surface flows.

7.2.10 Area of Interest #10 – Major Fill Piles or Berms

Four large berms and one fill pile of previously unknown composition are located on the eastern portion of the property. The North Berm (oriented east-west) is located north of the Material Storage Area and has an estimated volume of 40,500 cubic yards. The East Berm (oriented north-south) is located east of the Material Storage Area and has an estimated volume of 48,500 cubic yards. The South Berm (oriented east-west) is located north of CKD-containing soil Area #1 and has an estimated volume of 41,500 cubic yards. The Central Berm (oriented east-west) is located south of the Material Storage Area and has an estimated volume of 20,000 cubic yards. The fill pile is located northeast of CKD-containing soil Area #1 near well MW-1 and has an estimated volume of 63,000 cubic yards. The locations of these berms and fill piles are shown on Figure 2.

7.2.11 Area of Interest #11 – Former or Existing Transformers

Twenty-five (25) former or existing transformers were identified at the site. Although there was an effort in the 1980s to remove the PCB-containing oils from transformers and replace with PCB-free transformer oils, additional characterization was warranted to evaluate the potential for previous transformer oil releases.

7.2.12 Area of Interest #12 – Stormwater Retention Basin

The stormwater retention basin is located on the western portion of the site. The western side of the retention basin has two wide concrete swales which accept water that flows across the access road from a stormwater culvert serving Rubidoux Boulevard. The culvert receives stormwater runoff from the western side of Rubidoux Boulevard. Another concrete swale was identified on the southeastern corner of the basin, serving as a spillway for excess water. Based on correspondence with Mr. Pat Crites, the area that now serves as a retention basin is part of the former parking lot that was demolished in 2014 or 2015.

A discussion of sampling activities, field observations, and analytical results from the subsequent investigation of these features is provided in the sections below.

7.3 SAMPLING ACTIVITIES

7.3.1 Soil

A field investigation was conducted in September 2016 to further evaluate whether environmental conditions at the AOIs were likely to present human health or environmental concerns during redevelopment activities (e.g. demolition and grading). The primary method used to assess subsurface conditions was trenching using an excavator. Several soil borings were also advanced using a hollow-stem auger where deeper soil assessment was warranted.

The locations selected for evaluation during the field investigation follow the AOIs outlined above. The locations of the AOIs are shown on Figure 2, and the locations of soil borings and trenches are presented in Figures 3a and 3b.

The boring and trenching operations were performed under the full-time oversight of a Langan field engineer or scientist who conducted photoionization detector (PID) screening and observed the soils to identify discolorations, odors, and non-native materials such as debris or percentage of soil containing CKD. Representative soil

samples were collected from the excavator bucket during trenching operations and from a California-modified split spoon sampler during drilling operations.

The samples were obtained from the center of excavator bucket utilizing a precleaned stainless steel trowel. The samples were placed in laboratory provided glassware. For the exploratory borings, the samples were obtained using the above referenced split spoon sampler; the sampler was precleaned prior to each use. The decontamination procedures consisted of an Alconox wash with a single deionized water rinse.

The soil samples selected for laboratory analysis were logged on a chain–of-custody form and submitted to the analytical laboratory via courier.

Samples from the soil borings were collected at 5-foot intervals from ground surface to the bottom of the borehole. In general, samples from each trench were collected for laboratory analysis at locations selected based on the following criteria, in order of priority:

- Locations where field observations indicated staining, odors, elevated PID readings, or presence of non-native materials;
- Locations that represent potential fill or mine spoils as the predominant soil types, or;
- Locations near ground surface (1-2 feet bgs) and/or the base of the trench.

The primary purpose of these criteria was to ensure that sampling efforts were aligned with the immediate project objective. These criteria were designed for consistency with the fundamental principles and objectives of site assessment that are common to most agency guidance. Additional sampling criteria were included for AOI #10. Trenches at AOI #10 (Major Fill Piles or Berms) were sampled at a frequency of at least one per 5,000 cubic yards, consistent with DTSC Guidance.

Shallow samples (<1 foot bgs) were collected at AOI #11 (Former or Existing Transformers) to attempt to identify impacts from transformers with PCB-containing soils.

The results of the soil sampling and trenching activities are presented in Section 8.

Area of Interest #1 – CKD-Containing Soil Areas

Based on the results of site visits, potential CKD-containing soil areas were identified outside of the Wet Weather and Commercial Quarries. These areas include the fill pile northeast of the Wet Weather Quarry and the northern slope of the flooded Crestmore Quarry.

A total of 15 trenches were excavated in the vicinity of the observed and reported CKD-containing soil areas to attempt to evaluate the presence and the extent of CKD within these areas. Ten trenches (LT-21, LT-27, LT-28, LT-29, LT-30, LT-31, LT-32, LT-33, LT-41, and LT-44) were excavated to depths up to 20 feet at the suspected CKD-containing soil area near the Wet Weather Quarry.

Four trenches (LT-17, LT-19, LT-20, and LT-22) were excavated to depths up to 18 feet at the reported CKD-containing soil area northeast of the Wet Weather Quarry. One trench (LT-26) was excavated to a depth of approximately 5 feet at the suspected CKD-containing soil area at the northern slope of the flooded Crestmore Quarry.

All samples collected from AOI #1 were analyzed for metals (USEPA Method 6010 / 7471), as metals were the primary focus of previous regulatory investigations associated with the environmental effects of CKD at the site. One soil sample was also analyzed for TPH (USEPA Method 8015B) and Polychlorinated Biphenyls (PCBs; USEPA Method 8082).

Area of Interest #2 – Former USTs

To evaluate current soil conditions in the vicinity of the previously removed USTs, four trenches (LT-8, LT-13, LT-18, and LT-35) were excavated to depths of up to 21 feet in four locations (former 10,000 gasoline UST north of the maintenance area, former 6,000,000-gallon Bunker C fuel oil UST, a former 10,000-gallon gasoline UST south of the electrical tunnel, and a former 550-gallon waste oil UST south of the maintenance area). Although there was no evidence of residual impacts at these locations based on field screening, limited sampling was conducted for the purpose of confirming field observations and ruling out these areas as potential concerns. Soil samples collected from the trenches were analyzed for TPH (USEPA Method 8015B) and Volatile Organic Compounds (VOCs; USEPA Method 8260B).

Area of Interest #3 – White Kiln Pipeline Release

Two trenches (LT-24 and LT-36) were excavated in the vicinity of the White Kiln Pipeline Release to evaluate the current concentrations of diesel in soil and extent of the residual impacts, if any. No evidence of residual TPH was observed at the trenches based on visual, olfactory, and PID screening, and no samples were collected for laboratory analysis.

Area of Interest #4 – Former Boiler Blowdown Pond

One trench (LT-23) was attempted at the Former Boiler Blowdown Pond to evaluate current concentrations of metals in soil. One soil sample was analyzed for metals (USEPA Method 6010 / 7471).

Area of Interest #5 – Former Spray Pond

Additional characterization of TPH, metals, and VOCs was warranted in the vicinity of the former Spray Pond due to the potential for accumulation of runoff at the suction sump. One trench (LT-11) was excavated to a depth of approximately 20 feet near the suction sump at the southeast corner of the Former Spray Pond. One soil sample was analyzed for TPH (USEPA Method 8015B), metals (USEPA Method 6010 / 7471), and PCBs (USEPA Method 8082).

Area of Interest #6 – Former Sag Pond

Additional characterization was warranted in the vicinity of the former Sag Pond due to a lack of available historical information regarding the use of the pond. One trench (LT-9) was excavated to a depth of approximately 20 feet at the southeast corner of the Former Sag Pond. Two soil samples were analyzed for TPH (USEPA Method 8015B), metals (USEPA Method 6010 / 7471), PCBs (USEPA Method 8082), Semivolatile Organic Compounds (SVOCs; USEPA Method 8270C), and VOCs (USEPA Method 8260B).

Area of Interest #7 – Hazardous Waste Storage Area

Additional characterization was warranted in the vicinity of the hazardous waste storage area due to chemicals and waste stored at this location. One trench (LT-12) was excavated to a depth of approximately 18 feet near the sump at the southwest corner of the Hazardous Waste Storage Area. No evidence of residual impact was

found at this location based on visual/olfactory observations and PID screening, but limited sampling was conducted to evaluate constituents that are not readily identifiable using standard field screening procedures. One soil sample was analyzed for metals (USEPA Method 6010 / 7471) and PCBs (USEPA Method 8082).

Area of Interest #8 – Sewer Alignments

Two trenches (LT-15 and LT-Sewer) were excavated at locations where lateral lines serving the mining and manufacturing areas of the plant tie-in to the main sewer line oriented north to south near the western boundary of the site. No evidence of residual impact was found at this location based on visual/olfactory observations and PID screening, but limited sampling was conducted to confirm field observations. Three samples were analyzed for TPH (USEPA Method 8015B), metals (USEPA Method 6010 / 7471), PCBs (USEPA Method 8082), SVOCs (USEPA Method 8270C), and/or VOCs (USEPA Method 8260B).

Area of Interest #9 – Settling Areas

Four trenches (LT-39, LT-40, LT-42, and LT-43) were excavated at locations previously identified as surface water settling areas during RWQCB inspections in September 2000. As stated above, metals have been the primary focus of previous regulatory investigations associated with the environmental effects of CKD at the site. In general, settling areas represented appreciable contaminant input locations, we would expect to see elevated metals concentrations in surface soils at these locations. No evidence of excessive sedimentation was found at these areas, but limited sampling was conducted to confirm field observations. Four samples were analyzed for metals (USEPA Method 6010 / 7471).

Area of Interest #10 – Major Fill Piles or Berms

Based on site observations and a review of the historical operations in the vicinity of the fill piles, additional characterization were conducted in these areas.

Nine discrete-depth soil samples were collected from two trenches (LT-NBermA and LT-NBermB) excavated to depths up to 18 feet at the North Berm. Two composite samples were collected from the nine samples for laboratory analysis.

Ten discrete-depth soil samples were collected from two deep trenches (LT-

EBermC and LT-EBermD) excavated to a depth of 20 feet at the East Berm. Two composite samples were collected from the ten samples for laboratory analysis.

Two additional soil samples were collected from the East Berm at two shallow trenches (LT-EBermA and LT-EBermB) excavated to a depth of 2 feet. Nine discrete-depth soil samples were collected from two trenches excavated to depths up to 20 feet at the South Berm. Two composite samples were collected from the nine samples for laboratory analysis.

Two discrete-depth soil samples were collected from one trench excavated to a depth of 20 feet at the Central Berm (LT-CBermA). One composite sample was collected from the two samples for laboratory analysis. Two discrete-depth soil samples were collected from the Central Berm due to the observations of the fill materials; observed to be homogeneous sands with no odors or discolorations. At the fill pile near MW-1, 16 discrete-depth soil samples were collected from three trenches excavated to depths up to 24 feet (LT-MW1A, LT-MW1B and LT-MW1C). Three composite samples were collected from the 16 samples for laboratory analysis. A total of 11 composite and three grab samples were analyzed for metals (USEPA Method 6010 / 7471).

Area of Interest #11 – Former or Existing Transformers

Twelve trenches (LT-2, LT-AS1, LT-AS2, and LT-XF1 through LT-XF9) were excavated in the vicinity of nine former or existing transformers. A total of 11 soil samples were analyzed for PCBs (USEPA Method 8082).

Area of Interest #12 – Stormwater Retention Basin

Additional investigation was warranted at the stormwater retention basin due to the potential infiltration of stormwater runoff that may have been impacted by off-site sources. Four trenches (CB-TP-1 through CB-TP-3 and CB-Outfall-1) were excavated to depths of up to 12 feet at locations where influent runoff material and sediments were observed. A total of six soil samples were analyzed for metals (USEPA Method 6010 / 7471), hexavalent chromium (USEPA Method 7199), and TPH (USEPA Method 8015B).

Background Sampling/Additional Areas of Sampling

Additional trenching and soil sampling was conducted to obtain a background sample, and to obtain samples in the proposed soil excavation (cut) areas. One trench (LT-4) was excavated to characterize background soils at the undeveloped parcel between the Material Storage Area and El Rivino Road.

Six trenches (LT-5, LT-6, LT-10, LT-16, LT-45, and LT-47) were excavated to provide samples within the anticipated cut area. An additional three trenches were excavated in areas containing the decommissioned Diethylene Glycol / Sylvantal AST (LT-14), the two decommissioned Dust Suppressant ASTs (LT-45), and the Material Storage Area (LT-47). A total of six soil samples were analyzed for metals (USEPA Method 6010 / 7471). A sample from LT-45 was also analyzed for TPH (USEPA Method 8015B) due to its proximity to the former Dust Suppressant ASTs, although it is unlikely that petroleum or other hazardous substances were used as dust suppressants since the ASTs were installed in the early 2000's and were reported by the RCC Site Manager to contain a foaming agent sold by GE Betz, Inc.

7.3.2 Groundwater and Surface Water

Field investigations were also conducted to evaluate concentrations of metals and/or VOCs in groundwater and surface water at the site. Sampling events were conducted in November/December 2016, March 2017, and May 2017. During each of these events, groundwater samples were collected from MW-3, MW-4, and the northern well (Monitoring Well) using a submersible pump, and surface water samples were collected from Crestmore Lake using a stainless steel dipper.

Prior to sampling the groundwater wells, Langan staff measured and recorded groundwater parameters including pH, specific conductivity, ORP, dissolved oxygen, turbidity, temperature, and depth to groundwater during purging. The wells were sampled once three consecutive readings indicated groundwater parameters had stabilized within the following values:

- ± 0.1 for pH
- ± 3% for specific conductivity and temperature
- ± 10 millivolts (mV) for ORP
- ± 10% for dissolved oxygen and turbidity

Groundwater sample collection field data sheets are provided in Appendix F.

The groundwater and surface water samples were immediately labeled, recorded on a laboratory chain-of-custody, placed in a chilled ice chest, and delivered to TestAmerica under chain-of-custody protocol. The samples were analyzed for metals (including hexavalent chromium) and general minerals. Groundwater samples collected during the November/December 2016 sampling event were also analyzed for VOCs. The results of this investigation are presented in following section. The analytical report is presented in Appendix G.

8.0 RESULTS OF ANALYTICAL SAMPLING

8.1 SOIL

Table 1 summarizes key field observations and laboratory analytical results from trenches excavated during the field investigations. All laboratory analytical results for soil are summarized in Tables 2a through 2l, and laboratory analytical reports are included in Appendix G.

To establish context in the discussion of analytical results below, comparisons are provided using the lowest of the screening levels within the following agency data sets:

- Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) for commercial / industrial shallow soil
- Regional Screening Levels (RSLs) established by USEPA Region 9 for industrial soil
- Screening Levels (SLs) established by the DTSC for commercial / industrial soil

Section 9.0 provides additional information regarding the identification of potential exposure pathways and selection of applicable screening levels, along with a risk-based evaluation of results.

8.1.1 Metals

With the exception of arsenic, metals concentrations in soil were below the lowest of the selected screening levels. Arsenic was detected in 30 of the 40 samples analyzed for metals at concentrations ranging from 1.4 to 14 mg/kg. Arsenic concentrations measured throughout the site exhibit an approximate normal distribution, with 95% of results falling within two standard deviations of the mean and all results falling within three standard deviations of the mean. Based on a review of Bradford, 1996 and Chernoff, 2008, background concentrations of arsenic in Southern California soils typically range from 1 to 10 mg/kg, which is consistent with concentrations measured at the site.

8.1.2 Total Petroleum Hydrocarbons

Diesel-range petroleum hydrocarbons (TPH-d) were detected at 1,700 mg/kg in one trench (LT-9) in the vicinity of the Former Sag Pond (AOI #6), which is above the lowest of the selected screening levels (USEPA Region 9 RSL; 44 mg/kg). These impacts appeared to be confined to the upper 10 feet of soil. The origin and extent of TPH-d is unclear; however, the potential exists that the impacts could extend laterally throughout the Former Sag Pond.

No evidence of residual impacts was observed in the vicinity of former USTs (AOI #2) or the White Kiln Pipeline / Diesel Pump Leak (AOI #3). Previous sampling results reported by others suggest that residual impacts could be present; however, these impacts (if present) are not anticipated to require further action or special handling during future site redevelopment.

8.1.3 Polychlorinated Biphenyls

With the exception of one low-level detection of Aroclor 1248 at LT-XF1 (69 µg/kg), which is below the USEPA Region 9 RSL (0.950 µg/kg), PCBs were not detected above the laboratory reporting limit in samples collected from shallow soils near the former or existing transformers (AOI #11).

8.1.4 Volatile and Semi-Volatile Organic Compounds

Two samples from the Sag Pond (LT-9@4' and LT-9@8') were analyzed for VOCs and SVOCs based on visual observations of staining and olfactory evidence of petroleum hydrocarbons. One sample near a former 10,000-gallon UST location (LT-8@10.5) was analyzed for VOCs based on a statement in the 1988 closure report for this UST suggesting that some of the soil remaining in-place following UST removal and over-excavation may contain residual petroleum hydrocarbons. VOCs and SVOCs were also analyzed in one sample near the junction of the main sewer line and the branch sewer line serving the manufacturing area of the plant (LT-Sewer@10').

Naphthalene was detected in both samples from the Sag Pond (LT-9@4' and LT-9@8'), however the reported concentrations (7.5 µg/kg and 6.1 µg/kg, respectively) were well below the lowest of the selected screening levels (SFRWQCB ESL; 14.3 µg/kg). In addition, p-Isopropyltoluene was also detected at LT-9@8' (5.2 µg/kg), however no screening levels have been established for this compound. No other VOCs or SVOCs (with the exception of Naphthalene, discussed above) were detected in any of the

samples analyzed.

8.2 GROUNDWATER AND SURFACE WATER

The laboratory analytical results for groundwater are summarized in Tables 3a and 3b, and laboratory analytical reports are included in Appendix G.

8.2.1 Metals

Cr^{VI} was detected in MW-3 during the November/December 2016, March 2017, and May 2017 sampling events at 19 µg/l, 17 µg/l, and 16 µg/l respectively, which exceeds the California MCL (10 µg/l). Cr^{VI} concentrations have remained below the MCL at MW-4 and the Monitoring Well (northern well). No metals have been detected above their respective California MCLs in surface water samples (SW-1 and SW-2) collected from Crestmore Lake.

8.2.2 Volatile Organic Compounds

With the exception of trans-1,2-dichloroethene (t-1,2-DCE), no VOCs have been detected in groundwater samples collected from MW-3, MW-4, or the Northern Well. During the November/December 2016 sampling event, t-1,2-DCE was detected below the MCL (10 µg/l) in MW-3 (0.43 µg/l) and MW-4 (0.66 µg/l), however was not analyzed at the Monitoring Well (northern well). During the November/December 2016 sampling event, t-1,2-DCE was not detected in MW-3 or MW-4 but was detected below the MCL in the Monitoring Well (northern well) (2.1 µg/l).

9.0 SCREENING-LEVEL RISK ASSESSMENT

9.1 RECEPTORS AND EXPOSURE PATHWAYS

In a risk assessment, exposure pathways are means by which hazardous substances move through the environment from a source to a point of contact with people. A complete exposure pathway must have four parts: (1) a source of hazardous substances, (2) a mechanism for transport of a hazardous substances from the source to the air, surface water, groundwater and/or soil, (3) a point where receptors (people) come in contact with impacted air, surface water, groundwater and/or soil, and (4) a route of entry into the body. Based on a review of the analytical results for the site, there is a limited source of VOCs, rendering the inhalation pathway incomplete. Therefore, the remaining complete pathways are through dermal contact and ingestion.

Based on information provided by Crestmore Redevelopment, LLC regarding the proposed redevelopment of the RCP, potential receptors and complete exposure pathways are outlined below:

- Future Construction Worker – Redevelopment activities are anticipated to require operations such as decontamination, demolition, grading, and construction. Exposure pathways that future construction workers may be exposed to chemical constituents at the site include: (1) incidental soil/dust ingestion, (2) dermal contact with soil, (3) dermal contact with groundwater; and (4) dermal contact with equipment and debris from former site operations.

- Future Worker (Anticipated Scenario) – The proposed redevelopment is anticipated to include a commercial/industrial complex consisting of four one-story buildings with mezzanine levels with a combined building footprint of approximately 3.6 million square feet. The buildings are anticipated to cover approximately 43% of the northern 206-acre area, with the remainder of the property covered by paved surfaces such as asphalt or concrete, with limited landscaped coverage. Under this site configuration, the potential exposure pathway for future workers to fugitive dust ingestion is incomplete.

- Future Worker (Hypothetical Scenario) – In the event that the extent of surface coverage (i.e. concrete/asphalt) is modified (i.e. reduced) relative to the anticipated design, the potential direct contact with surface soil would increase

and become a potential exposure pathway for future workers. As such, the screening-level risk assessment for future workers also conservatively includes: (1) incidental soil ingestion, and (2) dermal contact with soil.

- Future Use of Shallow Groundwater – It is not anticipated that alluvial groundwater (hereafter referred to as "shallow groundwater") is to be used as a resource; therefore, dermal contact with groundwater is an incomplete pathway.

9.2 RISK CHARACTERIZATION

9.2.1 Soil

Analytical results from the field investigations were compared to the following risk-based screening levels applicable to the receptors and exposure pathways identified above:

Source	Screening Level	Applies to:
San Francisco Bay Regional Water Quality Control Board	Direct Exposure Human Health Risk Levels (Table S-1); Any Land Use/ Any Depth Soil Exposure: Construction Worker	Future Construction Worker: • incidental soil ingestion • dermal contact with soil • dermal contact with equipment and debris from former site operations
San Francisco Bay Regional Water Quality Control Board	Direct Exposure Human Health Risk Levels (Table S-1); Commercial / Industrial Shallow Soil Exposure	Future Worker (Hypothetical Scenario): • incidental soil ingestion • dermal contact with soil • inhalation of particulates in ambient air
Environmental Protection Agency Region 9	Regional Screening Levels for Industrial Soil	All human receptors at industrial sites
California Department of Toxic Substances Control Office of Human and Ecological Risk	Screening Levels for Commercial / Industrial Soil (Note 3)	All human receptors at commercial / industrial sites

Tables 2a through 2l include the screening levels listed in the table above for each of the constituents analyzed during the field investigations. Of the constituents analyzed, only four (arsenic, lead, nickel, and TPH-d) exceeded one or more of these screening levels. Further discussion of these exceedances is provided below.

Metals

The analytical results for arsenic exceeded ESLs for shallow soil in the commercial / industrial exposure scenario (0.31 mg/kg) and the construction worker exposure scenario (0.97 mg/kg), as well as the RSL (3.0 mg/kg) and the DTSC-SL (0.36 mg/kg). Concentrations ranged from < 3 mg/kg (non-detect, below the reporting limit) to 14 mg/kg, with an average detected concentration of 6.5 mg/kg. As discussed previously, arsenic concentrations at the site appear to be in the range of published background concentrations for Southern California.

Lead exceeded the ESL for shallow soil in the construction worker exposure scenario (160 mg/kg) in a sample collected at one foot bgs from LT-40 (200 mg/kg), which was excavated near a potential surface water settling area (AOI #9) identified by the RWQCB.

Nickel exceeded the ESL for shallow soil in the construction worker exposure scenario (86 mg/kg) in a sample collected at two feet bgs from LT-21 (150 mg/kg), which was excavated at the northern boundary of the potential CKD-containing soil area near the Wet Weather Quarry.

Engineering controls and personal protective measures established in a Soils Management Plan are proposed to mitigate potential risks to construction workers during redevelopment.

Diesel-Range Petroleum Hydrocarbons

TPH-d exceeded the ESLs for shallow soil in the commercial / industrial exposure scenario (1,078 mg/kg) and the construction worker exposure scenario (885 mg/kg), as well as the RSL (44 mg/kg) in a sample collected at four feet bgs from LT-9 (1,700 mg/kg) and a sample collected at eight feet bgs from LT-9 (950 mg/kg), which was excavated at the former Sag Pond. A Soils Management Plan will establish protocol and procedures for identifying, segregating, screening, and analyzing potentially impacted soils to confirm suitability for re-use or characterize for disposal. Additionally, engineering controls and personal protective measures established in a Soils Management Plan will address potential risks to construction workers during redevelopment.

None of the other constituents analyzed during the field investigations exceeded applicable screening levels.

9.2.2 Groundwater

All analytical results for groundwater were compared to MCLs. Tables 3a and 3b include the MCLs for each of the constituents analyzed during the field investigations.

The only constituent detected above MCLs in groundwater at the site is hexavalent chromium. According to the State Water Resources Control Board (SWRCB) Groundwater Information Sheet, Hexavalent Chromium (2016), chromium is a metal present in natural deposits of ores containing other elements, mostly as chrome-iron ore. It is also widely present in soil and plants. Under most conditions, natural chromium in the environment occurs as trivalent chromium. Under oxidizing conditions, alkaline pH range (greater than 7), presence of MnO2, and minerals containing chromium, part of it may occur as hexavalent chromium dissolved in groundwater.

Recent sampling of drinking water sources throughout California suggests that hexavalent chromium may occur naturally in groundwater at many locations (SWRCB, 2016).

Sampling data obtained on 12 January 2017 from SWRCB's GeoTracker Groundwater Ambient Monitoring and Assessment (GAMA) Program database for nearby water supply wells up-, down-, and cross-gradient of the RCP indicate that nearby wells have historically measured hexavalent chromium concentrations that vary between 2.6 µg/L to 20 µg/L (up-gradient) and 2 µg/L to 4.8 µg/L (down-gradient).

10.0 SUMMARY AND CONCLUSIONS

Field visits and investigations were conducted between April 2016 and February 2017. These activities included multiple site visits, interviews with RCC representatives knowledgeable about previous site operations, reviews of records provided by RCC, and reviews of regulatory databases. Twelve AOIs warranting further environmental investigation were identified.

Subsurface investigation was conducted at each of the Twelve AOIs to further evaluate the potential for environmental impacts. Work performed as part of this investigation included trenching, sampling, and laboratory analyses for constituents including metals, TPH, VOCs, SVOCs, and/or PCBs. Groundwater samples were collected from two monitoring wells in the southern portion of the site (MW-3 and MW-4) and one well in the northern portion of the site Monitoring Well (northern well). Surface water samples were also collected from two locations within Crestmore Lake (SW-1 and SW-2). Groundwater and surface water samples were analyzed for metals and/or VOCs.

Laboratory analytical results for soil were compared to screening levels for exposure pathways applicable to the site. Of the constituents analyzed in soil, only four (arsenic, lead, nickel, and TPH-d) exceeded one or more of these screening levels. Arsenic concentrations at the site appear to be in the range of published background concentrations for Southern California. Lead exceeded soil ESLs for the construction worker exposure scenario at one location near a surface water settling area, nickel exceeded soil ESLs for the construction worker exposure scenario at one location near a soil area containing suspected CKD west of the Wet Weather Quarry. TPH-d exceeded the ESL for shallow soil in the commercial / industrial exposure scenario (1,078 mg/kg) and the construction worker exposure scenario (885 mg/kg) in a sample collected at the former Sag Pond.

A Soils Management Plan will establish protocol and procedures for segregating, screening, and analyzing potentially impacted soils to confirm suitability for re-use or characterize for disposal. Engineering controls and personal protective measures established in the Soils Management Plan will address potential risks to construction workers associated with lead and nickel exposure during redevelopment.

Laboratory analytical results for groundwater were compared to California MCLs. The only constituent detected above MCLs in groundwater at the site was hexavalent

chromium in MW-3, at concentrations ranging between 16 to 19 ug/L. Shallow groundwater (alluvial groundwater) is not anticipated to be used as a resource during or after site development.

11.0 REFERENCES

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TABLES

TABLE 1
Summary of Key Field Observations and Laboratory Analytical Results
Remedial Investigation Report
Agua Mansa Commerce Park, Jurupa Valley, CA

Area of Interest #	Trench ID	Objective	Sampling Depths (feet bgs)	Field Observations	Key Analytical Results
1	LT-21 (9/19/2016)	Delineate northern boundary of soil containing CKD in Area #1	2,6	Soil containing CKD is present at south end of trench; Northern extent of CKD area delineated beneath berm on south side of road. Refusal on cemented material at 5 feet bgs. No staining, no odors, no VOC impacts.	In sample containing CKD (LT-21-2), metals were elevated with respect to the site-wide data set, including chromium (2,000 mg/kg), cobalt (16 mg/kg), nickel (150 mg/kg), and vanadium (69 mg/kg). Concentrations did not exceed ESLs, with the exception of nickel (exceeds ESL for construction worker).
1	LT-27 (9/20/2016)	Delineate western boundary of soil containing CKD in Area #1	2,5	Fine to medium sand fill interspersed with cemented materials. No CKD, no staining, no odors, no VOC impacts.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.
1	LT-28 (9/20/2016)	Delineate southern boundary of soil containing CKD in Area #1	1,2	Native granitic material encountered at south end of trench; soil containing CKD present in lenses throughout the remainder of trench. Delineated at apparent transition to slope. No staining, no odors, no VOC impacts.	Laboratory analyses not performed.
1	LT-29 (9/23/2016)	Delineate vertical extent of soil containing CKD near northern boundary of Area #1	none	Soil containing CKD encountered at depths between 3 and 5 feet bgs in the trench, which extended from berm at west of road to berm at east of road. Thickness ranges from 5 feet at west to less than 1 foot at east. No staining, no odors, no VOC impacts.	No laboratory analyses performed.
1	LT-30 (9/23/2016)	Delineate southern boundary of soil containing CKD in Area #1	none	CKD interspersed with sandy fill in upper 5 feet of trench; terminated due to refusal on cemented materials at ~ 5 feet bgs.	No laboratory analyses performed.
1	LT-31 (9/20/2016)	Delineate southern boundary of soil containing CKD in Area #1	2,4	Sandy fill to 1-2 feet bgs, underlain by sand and gravel fill with lenses of soil containing CKD and grey/lt.grey cemented materials. No staining, no odors, no VOC impacts.	No laboratory analyses performed.

TABLE 1
Summary of Key Field Observations and Laboratory Analytical Results
Remedial Investigation Report
Agua Mansa Commerce Park, Jurupa Valley, CA

Area of Interest #	Trench ID	Objective	Sampling Depths (feet bgs)	Field Observations	Key Analytical Results
1	LT-32 (9/23/2016)	Delineate southern boundary of soil containing CKD Area #1	none	Thin layer (<¼ inch) of soil containing CKD deposited at surface, underlain by fine to medium sand and trace gravel to 1 foot bgs and fine to coarse sand with trace gravel and partially cemented materials to 10 feet bgs. Several pieces of plastic and metal debris observed throughout. No staining, no odors, no VOC impacts.	No laboratory analyses performed.
1	LT-33 (9/20/2016)	Delineate southern boundary of soil containing CKD in Area #1	1,2	Sand and gravel fill to 1-2 feet bgs, underlain by sandy fill interspersed with lt. grey and white cemented and partially cemented materials. No soil containing CKD, no staining, no odors, no VOC impacts.	No laboratory analyses performed.
1	LT-41 (9/27/2016)	Attempt measurement of water table	none	Partially cemented materials interspersed with soil containing CKD to approximately 4 feet bgs, underlain by fine to coarse sand with trace gravel and cobbles to 20 feet bgs. Trench left open for two days, no groundwater observed.	No laboratory analyses performed.
1	LT-44 (9/27/2016)	Delineate vertical extent of soil containing CKD at base of Wet Weather Quarry and attempt measurement of water table	none	Partially cemented materials interspersed with soil containing CKD to approximately 4 feet bgs, underlain by fine to coarse sand with trace gravel and cobbles to 20 feet bgs. Trench open for two days, no groundwater observed.	No laboratory analyses performed.
2	LT-17 (9/19/2016)	Delineate northern boundary of soil containing CKD in Area #2	3,5	Three layers of fine to course sand with 3" of AC and brown silt at bottom of trench. No CKD, no staining, no odors, no VOC impacts.	Composited sample; two metals were elevated with respect to the site-wide data set, including arsenic (12 mg/kg) and cobalt (6.8 mg/kg). None of these concentrations exceed ESLs.
2	LT-19 (9/19/2016)	Delineate western boundary of soil containing CKD Area #2	1,4	Sand and gravel fill to total depth explored. No CKD, no staining, no odors, no VOC impacts.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.

TABLE 1
Summary of Key Field Observations and Laboratory Analytical Results
Remedial Investigation Report
Agua Mansa Commerce Park, Jurupa Valley, CA

Area of Interest #	Trench ID	Objective	Sampling Depths (feet bgs)	Field Observations	Key Analytical Results
2	LT-20 (9/19/2016)	Delineate eastern boundary of soil containing CKD Area #2	3,4	Sand and gravel fill to total depth explored. No CKD, no staining, no odors, no VOC impacts.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.
2	LT-22 (9/19/2016)	Delineate southern boundary of soil containing CKD Area #2	4,5	Sand and gravel fill to total depth explored. No CKD, no staining, no odors, no VOC impacts.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.
3	LT-26 (9/20/2016)	Evaluate depth and extent of soil containing CKD; waste/debris observed in ground	2,3	Asphalt road with base, red clay, Barite and potential soil containing CKD in upper 4 feet. Loose fill materials down to 6 feet bgs. Soil containing CKD (<1%), no staining, no odors, no VOC impacts.	Composited sample; two metals were elevated with respect to the site-wide data set, including Cd (7.1 mg/kg) and lead (79 mg/kg). Low-level detections of DRO (11 mg/kg) and ORO (39 mg/kg). None of these concentrations exceed ESLs.
2	LT-8 (9/21/2016)	Confirm/refute residual impacts identified in closure report.	3,10.5	Sandy fill to 6 feet bgs, transitions to native sand and gravel with some cobbles to total depth. No staining, no odors, no VOC impacts.	No TPH or VOCs detected.
2	LT-13 (9/21/2016)	Confirm/refute residual impacts identified in closure report.	5,10	Sand and gravel fill to total depth, some grey cemented materials between 2 and 4 feet bgs, possible transition to native near total depth. No staining, no odors, no VOC impacts.	No laboratory analyses performed.
2	LT-18 (9/27/2016)	Confirm/refute residual impacts identified in closure report.	1,15	Fine to medium sand to 4 feet bgs, underlain by fine to coarse sand with some gravel and cobbles to 18 feet bgs. No VOC impacts, no staining, no odors. UST removal confirmed by lack of signature on EM-61 magnetometer.	No laboratory analyses performed.
2	LT-35 (9/22/2016)	Confirm/refute residual impacts identified in closure report.	none	Sand and gravel fill to 6 feet bgs, underlain by native sandy gravel with some cobbles. No VOC impacts, no staining, no odors.	No laboratory analyses performed.
3	LT-24 (9/23/2016)	Confirm/refute residual impacts from diesel leak.	none	Very hard cemented klinker dust to 2 feet bgs, underlain by clean fill to 18 feet bgs. No VOC impacts, no staining, no odors.	No laboratory analyses performed.

TABLE 1
Summary of Key Field Observations and Laboratory Analytical Results
Remedial Investigation Report
Agua Mansa Commerce Park, Jurupa Valley, CA

Area of Interest #	Trench ID	Objective	Sampling Depths (feet bgs)	Field Observations	Key Analytical Results
3	LT-36 (9/23/2016)	Confirm/refute residual impacts from diesel leak.	none	Very hard cemented soil containing CKD to 1 foot bgs, underlain by clean fill to 18 feet bgs. Encountered 2-inch steel pipes at ~8 feet bgs, punctured the pipes, small amount (< 0.5L) of residual fuel oil (very viscous black fluid) drained from pipes. Impacted soil retrieved from below drainage and max PID = 47.1. No staining, no odors, no VOC impacts other than those mentioned due to drainage from pipe.	No laboratory analyses performed.
4	LT-23 (9/21/2016)	No previous investigation, no profile of previous blow down water	1 (two samples)	1-2 inches of cement underlain by plastic liner, underlain by 1-2 feet of sandy fill. Refusal encountered @ ~2 feet on concrete below sandy fill. No VOC impacts, no staining, no odors.	No metals elevated with respect to the site-wide data set or ESLs.
5	LT-11 (9/22/2016)	No previous investigation, no profile of previous blow down water	5,15	Sand and gravel fill to 7 feet bgs, underlain by native gravelly sand with some cobbles. No VOC impacts, no staining, no odors.	ORO was detected below at 33 mg/kg, below the ESL. No metals were elevated with respect to the site-wide data set or ESLs, and no PCBs were detected.
6	LT-9 (9/22/2016)	No previous investigation, no profile of fluids historically present	4,8	Sand with some gravel fill, interspersed with dark grey lenses with petroleum odor to total depth. LimitedVOC impacts in odorous soils (PID = 5 to 10 ppm)	DRO and ORO were detected in both samples, with the highest concentrations in the 4-foot sample (DRO=1,700 mg/kg and ORO=4,400 mg/kg). Some metals were elevated with respect to the site-wide data set, including Ba (100 mg/kg), Cu (46-60 mg/kg), Lead (120-140 mg/kg), and Zinc (75-76 mg/kg). None of these concentrations exceed ESLs, with the exception of lead (exceeds residential ESL for shallow soil).
7	LT-12 (9/22/2016)	Assess potential impacts from HWSA sump	4,12	Sandy fill to 6 feet bgs, transitions to native sand and gravel with some cobbles to total depth. No VOC impacts, no staining, no odors.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.

TABLE 1
Summary of Key Field Observations and Laboratory Analytical Results
Remedial Investigation Report
Agua Mansa Commerce Park, Jurupa Valley, CA

Area of Interest #	Trench ID	Objective	Sampling Depths (feet bgs)	Field Observations	Key Analytical Results
8	LT-15 (9/27/2016)	Assess potential impacts along sewer alignment	2,12	Fine to coarse sand with some gravel and trace cobbles to total depth. Lens of lt. grey / white stone from 2 to 4 feet bgs in central portion of trench. No VOC impacts, no staining, no odors.	No metals were elevated with respect to the site-wide data set or ESLs.
8	LT-Sewer (9/29/2016)	Assess potential impacts along sewer alignment	10,20	ORO was detected at 11 mg/kg, below the ESL. No GRO, DRO, VOCs, SVOCs, or PCBs were detected. No metals were elevated with respect to the site-wide data set or ESLs.	ORO was detected at 11 mg/kg, below the ESL. No metals were elevated with respect to the site-wide data set or ESLs.
9	LT-39 (9/27/2016)	Provide geographic coverage of proposed cut area; assess potential impacts at material storage area	1,15	Fine to coarse sand to total depth, some gravel present between 0 and 3 feet and between 13 and 16 feet. No VOC impacts, no staining, no odors.	No metals were elevated with respect to the site-wide data set or ESLs.
9	LT-40 (9/26/2016)	Provide geographic coverage of proposed cut area; assess potential impacts at material storage area	1,15	Partially cemented materials to ~1 foot, underlain by fine-coarse sand with gravel and partially cemented materials to 5 feet bgs, and medium to coarse sand with gravel and trace cobbles to total depth. No VOC impacts, no staining, no odors.	Two metals were elevated with respect to site-wide data set, including arsenic (14 mg/kg) and lead (200 mg/kg). The lead concentration is also elevated with respect to the direct exposure ESL for residential shallow soil (80 mg/kg) and construction workers (160 mg/kg), but not for industrial shallow soil (320 mg/kg). No other metals were elevated with respect to the site-wide data set or ESLs.
9	LT-42 (9/26/2016	Provide geographic coverage of proposed cut area; assess potential impacts at material storage area	1,15	Fine to coarse sand with some silt to 5 feet bgs, underlain by fine to coarse sand with some silt and some gravel to total depth. No VOC impacts, no staining, no odors.	No metals were elevated with respect to the site-wide data set or ESLs.
9	LT-43 (9/26/2016)	Provide geographic coverage of proposed cut area; assess potential impacts at material storage area	1,15	Fine to medium sand with some silt to 6 feet bgs, underlain by fine to coarse sand with gravel and trace cobbles to total depth. No VOC impacts, no staining, no odors.	No metals were elevated with respect to the site-wide data set or ESLs.

TABLE 1
Summary of Key Field Observations and Laboratory Analytical Results
Remedial Investigation Report
Agua Mansa Commerce Park, Jurupa Valley, CA

Area of Interest #	Trench ID	Objective	Sampling Depths (feet bgs)	Field Observations	Key Analytical Results
10	LT-NBermA (9/28/2016)	Determine composition of fill areas to be cut during grading	3,6,10,18	Fine silty sand to total depth. Soil containing CKD interspersed with fill soils between 12 feet bgs and total depth. No VOC impacts, no staining, no odors.	Composited sample; one metal (As) was elevated with respect to the site-wide data set (9.4 mg/kg). No other metals were elevated with respect to the site-wide data set, or ESLs.
10	LT-NBermB (9/28/2016)	Determine composition of fill areas to be cut during grading	4,7,11,14,16	Fine to medium silty sand with trace gravel to total depth. Soil containing CKD interspersed with fill soils between 8 feet bgs and total depth. No VOC impacts, no staining, no odors.	No metals were elevated with respect to the site-wide data set or ESLs.
10	LT-EBermA (9/28/2016)	Determine composition of fill areas to be cut during grading	1	Shallow trench excavated by hand. Fine silty sand, no soil containing CKD.	No metals were elevated with respect to the site-wide data set or ESLs.
10	LT-EBermB (9/28/2016)	Determine composition of fill areas to be cut during grading	2	Shallow trench excavated by hand. Fine silty sand, no soil containing CKD.	Three metals were elevated with respect to the site-wide data set, including chromium (33 mg/kg), cobalt (7 mg/kg), and nickel (21 mg/kg). None of these concentrations exceed ESLs.
10	LT-EBermC (9/28/2016)	Determine composition of fill areas to be cut during grading	5,8,13,17	Fine silty sand to total depth. Soil containing CKD interspersed with fill soils between 10 feet bgs and total depth. No VOC impacts, no staining, no odors.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.
10	LT-EBermD (9/28/2016)	Determine composition of fill areas to be cut during grading	3,6,11,14	Fine silty sand to total depth. Soil containing CKD interspersed with fill soils between 5 feet bgs and total depth. No VOC impacts, no staining, no odors.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.
10	LT-SBermA (9/28/2016)	Determine composition of fill areas to be cut during grading	1,3,7,12,18	Partially cemented materials to 2 feet bgs, underlain by fine to medium sand with trace gravel to total depth. Trace coal present between 2 and 6 feet bgs at south end of trench. No VOC impacts, no staining, no odors.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.
10	LT-SBermB (9/28/2016)	Determine composition of fill areas to be cut during grading	5,9,12,18	Partially cemented materials to 1 foot bgs, underlain by fine to coarse sand with trace gravel to total depth. No VOC impacts, no staining, no odors.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.

TABLE 1
Summary of Key Field Observations and Laboratory Analytical Results
Remedial Investigation Report
Agua Mansa Commerce Park, Jurupa Valley, CA

Area of Interest #	Trench ID	Objective	Sampling Depths (feet bgs)	Field Observations	Key Analytical Results
10	LT-CBermA (9/29/2016)	Determine composition of fill areas to be cut during grading	5,10	Partially cemented materials to approximately 2 inches bgs, underlain by clean, homogeneous fine to coarse sand.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.
10	LT-MW1A (9/27/2016)	Determine composition of fill areas to be cut during grading	3,6,12,15,18,21	Fine silty sand to total depth. Soil containing CKD interspersed with fill soils between 10 feet bgs and total depth. No VOC impacts, no staining, no odors.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.
10	LT-MW1B (9/28/2016)	Determine composition of fill areas to be cut during grading	5,10,15,20,25	Fine silty sand to total depth. Soil containing CKD interspersed with fill soils from 0 to 8 feet bgs and from 13 feet bgs to total depth. No VOC impacts, no staining, no odors.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.
10	LT-MW1C (9/28/2016)	Determine composition of fill areas to be cut during grading	5,10,15,20,25	Fine silty sand to total depth. Soil containing CKD interspersed with fill soils from 0 to 3 feet bgs. No VOC impacts, no staining, no odors.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.
11	LT-2 (9/21/2016)	Assess potential PCB impacts associated with abandoned substation	5,13	Fine to medium sand with trace gravel to 13 feet bgs, underlain by fine to coarse sand with gravel and some cobbles to 19 feet bgs. No VOC impacts, no staining, no odors.	No laboratory analyses were performed.
11	LT-AS1 (9/22/2016)	Assess potential PCB impacts associated with abandoned substation	0.5	Shallow trench excavated by hand. Fine to medium sand with trace gravel. No VOC impacts, no staining, no odors.	No PCBs were detected.
11	LT-AS2 (9/22/2016)	Assess potential PCB impacts associated with abandoned substation	0.5	Shallow trench excavated by hand. Fine to medium sand with trace gravel. No VOC impacts, no staining, no odors.	No PCBs were detected.

TABLE 1

Summary of Key Field Observations and Laboratory Analytical Results

Remedial Investigation Report

Agua Mansa Commerce Park, Jurupa Valley, CA

Area of Interest #	Trench ID	Objective	Sampling Depths (feet bgs)	Field Observations	Key Analytical Results
11	LT-XF1 (9/28/2016)	Assess potential PCB impacts associated with former or existing transformers	0.5	Locations except LT-XF3 were sampled beneath at least 2-3 inches of surficial asphalt, concrete, or heavily cemented materials. Ground surface at LT-XF3 was vegetated overburden. No VOC impacts, staining, or odors were observed at any of these locations.	Low-level concentrations of Aroclor 1248 were detected at LT-XF1 (0.069 mg/kg). No other PCBs were detected at LT-XF1 or any of the other locations.
11	LT-XF2 (9/28/2016)		0.5		
11	LT-XF3 (9/28/2016)		0.5		
11	LT-XF4 (9/29/2016)		0.5		
11	LT-XF5 (9/29/2016)		0.5		
11	LT-XF6 (9/29/2016)		0.5		
11	LT-XF7 (9/29/2016)		0.5		
11	LT-XF8 (9/29/2016)		0.5		
11	LT-XF9 (9/29/2016)		0.5		
12	LT-4 (9/21/2016)	Characterize background soils	5	Fine sand to total depth (15 feet bgs). No VOC impacts, no staining, no odors.	No metals were elevated with respect to the site-wide data set or ESLs.
12	LT-5 (9/27/2016)	Provide geographic coverage of proposed cut area	1,15	Partially cemented materials ("hard pan") to ~1 foot, underlain by fine-medium sand to total depth. No VOC impacts, no staining, no odors.	No metals were elevated with respect to the site-wide data set or ESLs.
12	LT-6 (9/27/2016)	Provide geographic coverage of proposed cut area	1,15	Fine to medium sand to total depth, with trace gravel and trace cobbles present from 7 to 15 feet bgs. No VOC impacts, no staining, no odors.	Composited sample; one metal (arsenic) was elevated with respect to site-wide data set (9.5 mg/kg). No other metals were elevated with respect to the site-wide data set, or ESLs.
12	LT-10 (9/27/2016)	Provide geographic coverage of proposed cut area	1,15	Fine to coarse sand to 2 feet bgs, underlain by fine to medium sand with silt and clay to 18 feet bgs. No VOC impacts, no staining, no odors.	Composited sample; no metals were elevated with respect to the site-wide data set or ESLs.

TABLE 1
Summary of Key Field Observations and Laboratory Analytical Results
Remedial Investigation Report
Agua Mansa Commerce Park, Jurupa Valley, CA

Area of Interest #	Trench ID	Objective	Sampling Depths (feet bgs)	Field Observations	Key Analytical Results
12	LT-14 (9/27/2016)	Provide geographic coverage of proposed cut area; assess potential impacts near decommissioned diethylene glycol/sylvantal AST	2,15	Partially cemented materials to ~1 foot, underlain by fine to coarse sand with some gravel to 6 feet, and fine to medium sand with some silt to total depth. No VOC impacts, no staining, no odors.	No laboratory analyses were performed.
12	LT-16 (9/27/2016)	Provide geographic coverage of proposed cut area	1,15	Partially cemented materials to ~0.5 foot, underlain by fine to coarse sand to 12 feet, and fine to medium sand with trace cobbles to total depth. No VOC impacts, no staining, no odors.	No laboratory analyses were performed.
12	LT-45 (9/27/2016)	Provide geographic coverage of proposed cut area; assess potential impacts near decommissioned dust suppressant AST	1,15	Asphalt and partially cemented materials to ~6 inches, underlain by fine-medium sand with clay and silt to total depth. No VOC impacts, no staining, no odors.	Composited sample; DRO and ORO were detected at 100 mg/kg and 600 mg/kg, respectively. GRO was not detected. No metals were elevated with respect to the site-wide data set or ESLs.
12	LT-46 (9/27/2016)	Provide geographic coverage of proposed cut area	none	Fine to medium sand to 4 feet bgs, underlain by fine to coarse sand with some gravel and some cobbles to ~8 feet bgs, underlain by fine to medium sand with trace gravel and trace cobbles to total depth. No VOC impacts, no staining, no odors.	No laboratory analyses were performed.
12	LT-47 (9/29/2016)	Provide geographic coverage of proposed cut area; assess potential impacts at material storage area	1,5,20	Heavily cemented materials to 2.5 feet bgs, underlain by fine-medium sand with some silt and clay to total depth. No VOC impacts, no staining, no odors.	Composited sample; three metals were elevated with respect to site-wide data set, including arsenic (12 mg/kg), Cd (4 mg/kg), and lead (51 mg/kg). None of these concentrations exceed ESLs.
13	CB-TP-1 (4/10/2017)	Assess subsurface conditions near northern inlet swale.	2.5,10.5	Clayey silt from 0 to 2 feet bgs, underlain by lens of silty fine sand from 2 to 3 feet bgs. Fine sand from 3 to 8 feet bgs and medium to coarse sand from 8 to 11 feet bgs. No staining, no odors, no VOC impacts.	With the exception of arsenic, no metals were detected above the ESL. Low levels of oil-range (C23-C40) petroleum hydrocarbons were detected below the ESL at 2.5 feet bgs.

TABLE 1

Summary of Key Field Observations and Laboratory Analytical Results

Remedial Investigation Report

Agua Mansa Commerce Park, Jurupa Valley, CA

Area of Interest #	Trench ID	Objective	Sampling Depths (feet bgs)	Field Observations	Key Analytical Results
13	CB-TP-2 (4/10/2017)	Assess subsurface conditions near southern inlet swale.	9	Clayey silt from 0 to 2 feet bgs, underlain by medium sand with trace fine rounded gravel from 2 to 12 feet bgs. No staining, no odors, no VOC impacts.	With the exception of arsenic, no metals were detected above the ESL. No petroleum hydrocarbons were detected.
13	CB-TP-3 (4/10/2017)	Assess subsurface conditions near observed sedimentation area.	3,9	Clayey silt from 0 to 1.5 feet bgs, underlain by medium sand from 1.5 to 9 feet bgs and medium to coarse sand with trace fine rounded gravel from 9 to 12 feet bgs. No staining, no odors, no VOC impacts.	With the exception of arsenic, no metals were detected above the ESL. No petroleum hydrocarbons were detected.
13	CB-Outfall-1 (4/10/2017)	Assess surface conditions near northern inlet swale.	0	Minor surficial staining and sedimentation observed on soil.	With the exception of arsenic, no metals were detected above the ESL. Low levels of oil-range (C23-C40) petroleum hydrocarbons were detected below the ESL.

TABLE 3b

Summary of Laboratory Analytical Results - Groundwater (Dissolved)

Remedial Investigation Report

Agua Mansa Commerce Park, Jurupa Valley, CA

Well / Location ID	MW-3				MW-4				Northern Well			SW-1				SW-2				MCL
Sample Type	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	
Sample Date	11/18/2016	12/12/2016	3/28/2017	5/23/2017	11/18/2016	12/12/2016	3/28/2017	5/23/2017	12/14/2016	3/28/2017	5/23/2017	11/18/2016	12/12/2016	3/28/2017	5/23/2017	11/18/2016	12/12/2016	3/28/2017	5/23/2017	
Metals (EPA Method 6010 B) - mg/l																				
Arsenic	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.0050	**0.0056**	ND<0.010	ND<0.010	ND<0.0050	**0.0086**	ND<0.010	ND<0.010	1.00E+01
Barium	**0.095**	**0.097**	**0.099**	**0.093**	**0.094**	**0.055**	**0.075**	**0.075**	**0.084**	**0.094**	**0.096**	**0.059**	**0.058**	**0.063**	**0.058**	**0.059**	**0.056**	**0.050**	**0.053**	1.00E+03
Antimony	ND<0.0060	ND<0.0060	ND<0.010	ND<0.010	ND<0.0060	ND<0.0060	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.0060	ND<0.0060	ND<0.010	ND<0.010	ND<0.0060	ND<0.0060	ND<0.010	ND<0.010	6.00E+00
Beryllium	ND<0.0010	ND<0.0010	ND<0.0020	ND<0.0020	ND<0.0010	ND<0.0010	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.0020	ND<0.0010	ND<0.0010	ND<0.0020	ND<0.0020	ND<0.0010	ND<0.0010	ND<0.0020	ND<0.0020	4.00E+00
Vanadium	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	**0.012**	**0.0081**	**0.011**	**0.012**	ND<0.010	ND<0.010	ND<0.010	**0.0071**	**0.0072**	ND<0.010	ND<0.010	**0.0071**	**0.0059**	ND<0.010	ND<0.010	5.00E+01
Zinc	**0.013**	ND<0.010	ND<0.020	ND<0.020	**0.016**	ND<0.010	ND<0.020	ND<0.020	ND<0.020	ND<0.020	ND<0.020	ND<0.010	ND<0.010	ND<0.020	ND<0.020	ND<0.010	ND<0.010	ND<0.020	ND<0.020	5.00E+03
Thallium	**0.0068**	ND<0.0050	ND<0.010	ND<0.010	ND<0.0050	**0.0095**	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	**0.0073**	ND<0.0050	ND<0.010	ND<0.010	**0.0065**	ND<0.0050	ND<0.010	ND<0.010	2.00E+00
Silver	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	1.00E+02
Selenium	ND<0.0061	ND<0.0061	**0.011**	ND<0.010	ND<0.0061	ND<0.0061	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.0061	ND<0.0061	ND<0.010	ND<0.010	ND<0.0061	ND<0.0061	ND<0.010	ND<0.010	5.00E+01
Cobalt	ND<0.0025	ND<0.0025	ND<0.010	ND<0.010	ND<0.0025	ND<0.0025	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.0025	ND<0.0025	ND<0.010	ND<0.010	ND<0.0025	ND<0.0025	ND<0.010	ND<0.010	6.01E+00
Copper	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	1.00E+03
Cadmium	ND<0.0020	ND<0.0020	ND<0.0050	ND<0.0050	ND<0.0020	ND<0.0020	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0020	ND<0.0020	ND<0.0050	ND<0.0050	ND<0.0020	ND<0.0020	ND<0.0050	ND<0.0050	5.00E+00
Chromium	**0.019**	**0.017**	**0.018**	**0.018**	ND<0.0025	ND<0.0025	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	**0.0043**	**0.0061**	**0.0072**	**0.0056**	**0.0043**	**0.0055**	**0.0059**	**0.0052**	2.25E+04
Molybdenum	ND<0.010	ND<0.010	ND<0.020	ND<0.020	ND<0.010	ND<0.010	ND<0.020	ND<0.020	ND<0.020	ND<0.020	ND<0.020	**0.013**	**0.015**	ND<0.020	ND<0.020	**0.014**	**0.015**	ND<0.020	ND<0.020	9.98E+01
Nickel	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	1.00E+02
Lead	ND<0.0025	ND<0.0025	ND<0.0050	ND<0.0050	ND<0.0025	ND<0.0025	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0025	ND<0.0025	ND<0.0050	ND<0.0050	**0.0033**	ND<0.0025	ND<0.0050	ND<0.0050	1.50E+01
Potassium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Calcium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	ND<0.0050	ND<0.0050	ND<0.010	ND<0.010	1.00E+03
Manganese	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sodium	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Zinc	**0.013**	ND<0.010	ND<0.020	ND<0.020	**0.016**	ND<0.010	ND<0.020	ND<0.020	ND<0.020	ND<0.020	ND<0.020	ND<0.010	ND<0.010	ND<0.020	ND<0.020	ND<0.010	ND<0.010	ND<0.020	ND<0.020	5.00E+03
Mercury (EPA Method 7470A) - mg/l																				
Mercury	ND<0.00010	ND<0.00010	ND<0.00020	ND<0.00020	ND<0.00010	ND<0.00010	ND<0.00020	ND<0.00020	ND<0.00020	ND<0.00020	ND<0.00020	ND<0.00010	ND<0.00010	ND<0.00020	ND<0.00020	ND<0.00010	ND<0.00010	ND<0.00020	ND<0.00020	2.00E+00

Notes and Abbreviations:

mg/l = milligrams per liter

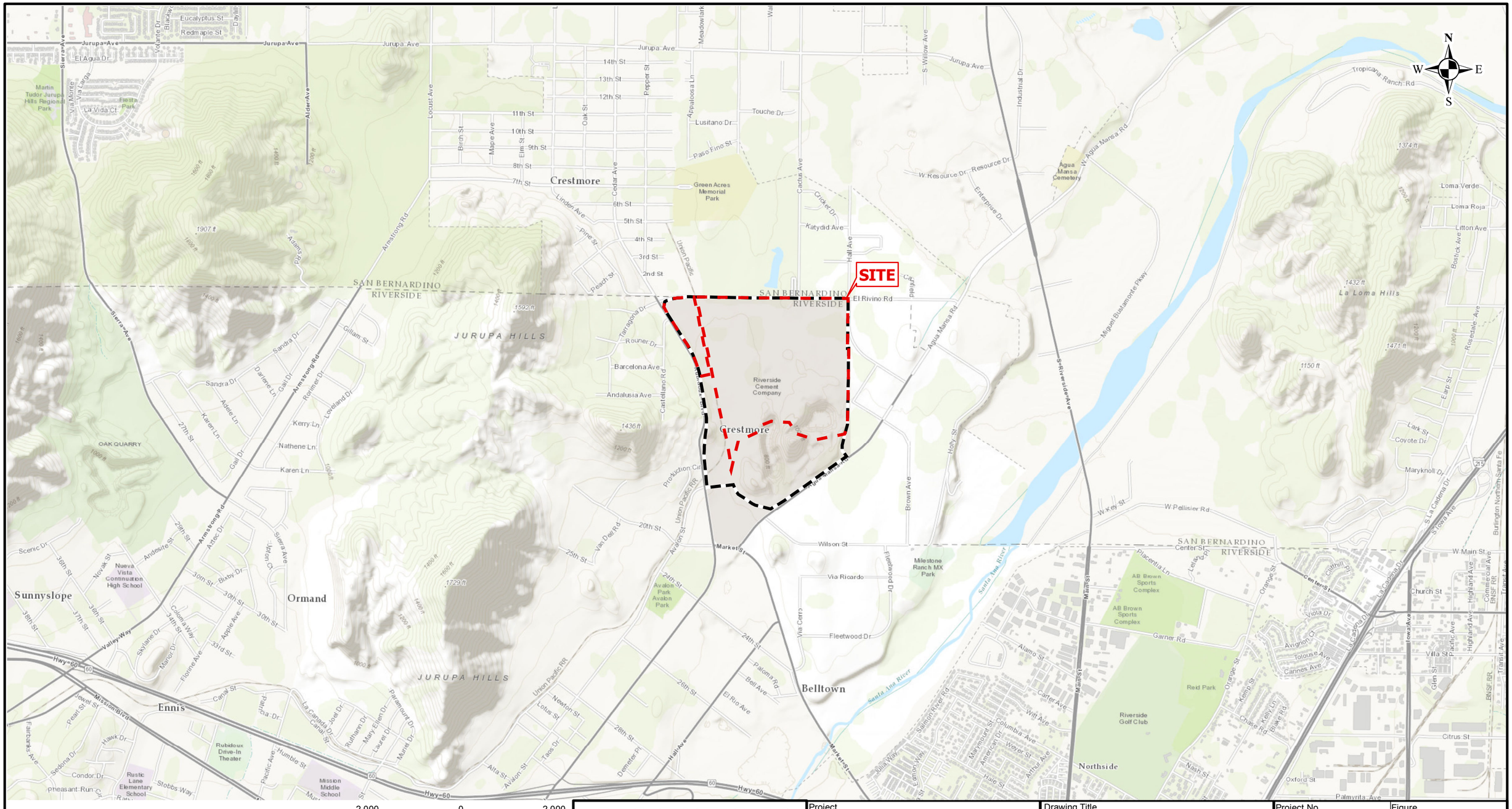
EPA = United States Environmental Protection Agency

ND = not detected; value shown indicates the method detection limit

MCL = California Maximum Contaminant Level

-- = no result or MCL available

FIGURES



Legend

- Approximate Limits of Development
- Approximate Limits of Former Riverside Cement Manufacturing Plant

2,000 0 2,000
SCALE IN FEET

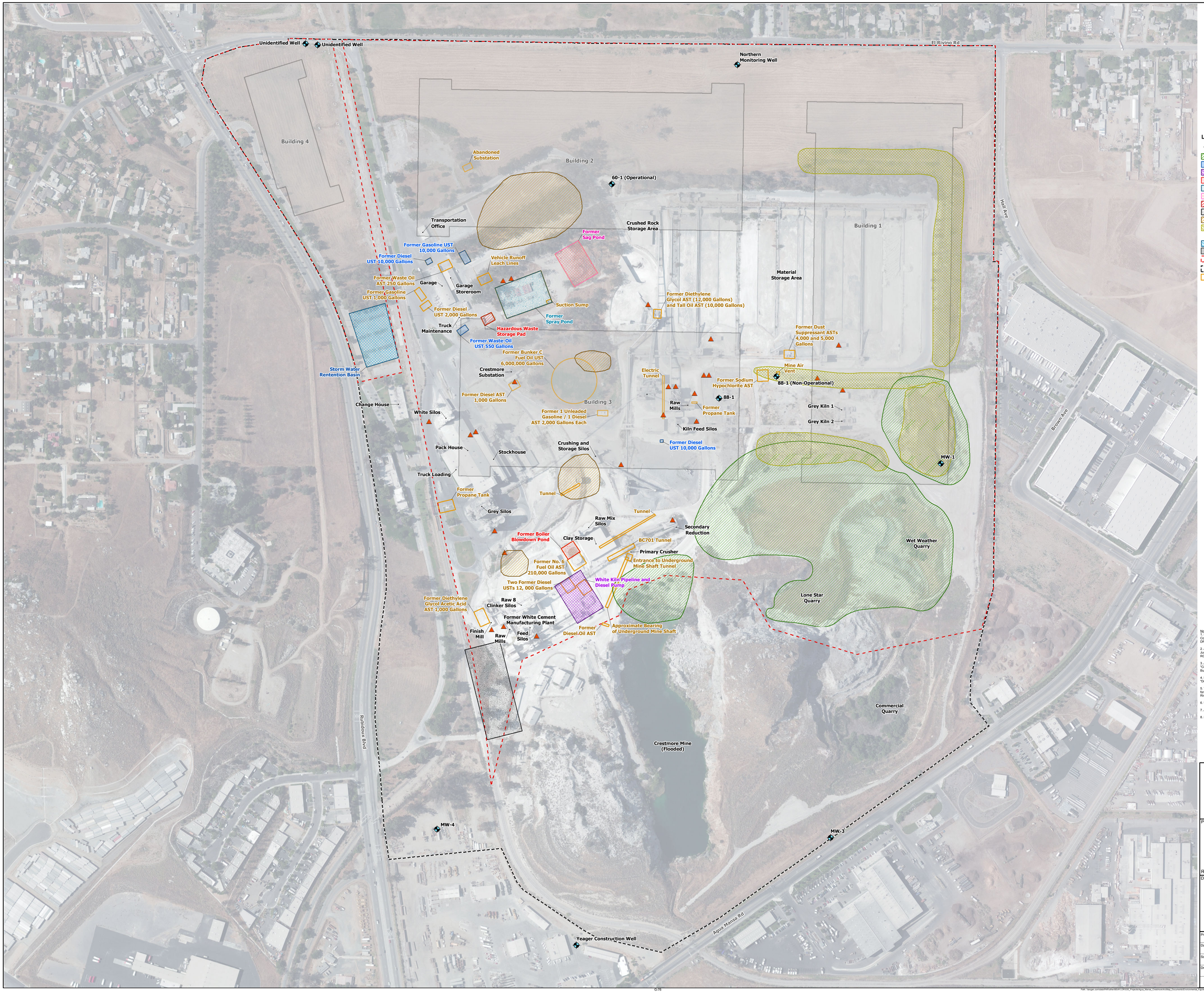
Notes:
1. Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online Copyright: © 2011 National Geographic Society, i-cubed
2. Approximate site limits refernced from plan titled "Crestmore Redvelopment, Jurupa Valley, CA - Preliminary Site Plan - Scheme A.01," Prepared by RGA Office of Architectural Design, Dated 11 May 2016.

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Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

Project	AGUA MANSA COMMERCE PARK JURUPA VALLEY RIVERSIDE COUNTY CALIFORNIA
Drawing Title	SITE LOCATION MAP
Project No.	721011301
Date	27 SEPTEMBER 2017
Scale	1 " = 2,000 '
Drawn By	BJS
Figure	1

Path: \\langan.com\data\PAR\other\BSAYLOR\GIS_Projects\Agua_Mansa_Crestmore\ArcMap_Documents\Environmental_Figures\Remedial_Investigation_Report\Figure 1 - Site Location Map.mxd

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N
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Legend

- Approximate Groundwater Well Location (MW-3)
- Area of Interest #1 - Areas with Soil Containing CKD
- Area of Interest #2 - Locations of Former USTs
- Area of Interest #3 - White Kiln Pipeline and Diesel Pump
- Area of Interest #4 - Former Boiler Blowdown Pond
- Area of Interest #5 - Former Spray Pond
- Area of Interest #6 - Former Sag Pond
- Area of Interest #7 - Hazardous Waste Storage Area
- Area of Interest #8 - Sewer Alignments
- Area of Interest #9 - Settling Area
- Area of Interest #10 - Major Fill Piles or Berms
- Area of Interest #11 - Former / Existing Transformers)
- Area of Interest #12 - Storm Water Retention Basin
- Proposed Building Footprint
- Approximate Limits of Development
- Approximate Limits of Former Riverside Cement Manufacturing Plant
- Approximate Location of Key Site Features

Notes:
1. Background referenced from plan titled "Encumbrance Map, Vacant Commercial Property, Jurupa Valley, California, Topographic Information by DRC Engineering, Inc., Dated 2 March 2016.

2. Approximate site limits referenced from plan titled "Crestmore Redevelopment, Jurupa Valley, CA - Preliminary Site Plan - Scheme A.01," Prepared by RGA Office of Architectural Design, Dated 11 May 2016.

3. Approximate limits of areas are referenced from "Crestmore Plant, Hazardous Material Business Plan (HMBP)" by Riverside TXI Cement, Dated 2009.

4. Limits of Cement Kiln Dust (CKD) Disposal Areas area referenced from "Draft Technical Memorandum No.1" by Sector, Dated 25 January 2001.

5. Transformer locations referenced from "Figure 2 - Site Map, for TXI Riverside Cement Crestmore Plant, 1500 Rubidoux Boulevard, Riverside, California 92509" by Stantec, Dated 26 July 2013.

6. Underground Storage Tank (UST)

7. Above Ground Storage Tank (AST)

8. Map grid shown in California State Plane Zone 6, NAD 83. U.S. Feet.

0 140 280
SCALE IN FEET

LANGAN
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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

Project
AGUA MANSA COMMERCE PARK
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

Drawing Title
SITE MAP WITH KEY SITE FEATURES AND AREAS OF INTEREST

Project No.	Figure No.
721011301	2
Date: 26 OCTOBER 2017	
Scale: 1"= 140'	
Drawn By: OG	

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Path: \langan.com\data\IRA\other\BEATLORGS_Projects\Agua_Mansa_Crestmore\Active_Documents\Environmental_Figures\Remedial_Investigation_Report\Figure 2 - Site Map with Key Site Features and Areas of Interest 20171027.mxd

LT-4	
Sample Date	9/21/2016
Depth	5
Arsenic	ND<3
Barium	43
Cadmium	ND<0.5
Chromium	15
Cobalt	3.7
Copper	9.6
Lead	4.4
Mercury	ND<0.02
Nickel	10
Vanadium	29
Zinc	28

LT-NBermA	
Sample Date	9/28/2016
Depth	18
Arsenic	5.6
Barium	72
Cadmium	1.3
Chromium	18
Cobalt	4.3
Copper	13
Lead	23
Mercury	0.022
Nickel	12
Vanadium	32
Zinc	36

LT-6	
Sample Date	9/27/2016
Composited Depths	1,15
Arsenic	9.5
Barium	61
Cadmium	ND<0.49
Chromium	19
Cobalt	5
Copper	14
Lead	5.6
Mercury	ND<0.02
Nickel	14
Vanadium	32
Zinc	31

LT-NBermB	
Sample Date	9/28/2016
Composited Depths	4,7,11,14,16
Arsenic	7.6
Barium	73
Cadmium	1.2
Chromium	23
Cobalt	5.8
Copper	17
Lead	13
Mercury	0.02
Nickel	8.6
Vanadium	38
Zinc	46

LT-EBermD	
Sample Date	9/28/2016
Composited Depths	3,6,11,14
Arsenic	6.4
Barium	53
Cadmium	1.1
Chromium	19
Cobalt	4.8
Copper	15
Lead	17
Mercury	0.022
Nickel	14
Vanadium	31
Zinc	37

LT-EBermB	
Sample Date	9/28/2016
Depth	2
Arsenic	5.6
Barium	78
Cadmium	0.63
Chromium	33
Cobalt	7
Copper	21
Lead	15
Mercury	0.022
Nickel	21
Vanadium	41
Zinc	51

LT-EBermA	
Sample Date	9/28/2016
Depth	1
Arsenic	3.7
Barium	41
Cadmium	ND<0.49
Chromium	16
Cobalt	3.5
Copper	12
Lead	7.1
Mercury	ND<0.02
Nickel	10
Vanadium	26
Zinc	29

LT-10	
Sample Date	9/27/2016
Composited Depths	1,15
Arsenic	4.1
Barium	40
Cadmium	ND<0.5
Chromium	13
Cobalt	3.4
Copper	9.8
Lead	6
Mercury	ND<0.02
Nickel	9.1
Vanadium	26
Zinc	25

LT-EBermC	
Sample Date	9/28/2016
Composited Depths	5,8,13,17
Arsenic	8.2
Barium	64
Cadmium	1.3
Chromium	23
Cobalt	5.6
Copper	17
Lead	23
Mercury	0.051
Nickel	16
Vanadium	35
Zinc	44

LT-47	
Sample Date	9/29/2016
Composited Depths	5,20
Arsenic	12
Barium	67
Cadmium	4
Chromium	25
Cobalt	3.1
Copper	16
Lead	51
Mercury	0.073
Nickel	13
Vanadium	28
Zinc	63

LT-45	
Sample Date	9/27/2016
Composited Depths	1,15
Arsenic	5.3
Barium	55
Cadmium	ND<0.5
Chromium	19
Cobalt	4.4
Copper	13
Lead	8.2
Mercury	ND<0.02
Nickel	14
Vanadium	30
Zinc	41
GRO (C4-C12)	ND<0.390
C13-C22	100
C23-C40	600

LT-CBermA	
Sample Date	9/29/2016
Composited Depths	5,10
Arsenic	ND<3.0
Barium	33
Cadmium	ND<0.50
Chromium	11
Cobalt	2.7
Copper	7.7
Lead	2.7
Mercury	ND<0.020
Nickel	7.7
Vanadium	21
Zinc	19

LT-MW1C	
Sample Date	9/28/2016
Composited Depths	5,10,15,20,25
Arsenic	5
Barium	47
Cadmium	1.1
Chromium	17
Cobalt	4.1
Copper	12
Lead	23
Mercury	0.028
Nickel	11
Vanadium	27
Zinc	42

LT-17	
Sample Date	9/19/2016
Composited Depths	3,5
Arsenic	12
Barium	79
Cadmium	ND<0.5
Chromium	26
Cobalt	6.8
Copper	21
Lead	9.6
Mercury	0.022
Nickel	19
Vanadium	41
Zinc	51

LT-MW1A	
Sample Date	9/27/2016
Composited Depths	3,6,12,15,18,21
Arsenic	4.1
Barium	48
Cadmium	0.91
Chromium	19
Cobalt	4.2
Copper	14
Lead	17
Mercury	0.034
Nickel	13
Vanadium	31
Zinc	32

LT-20	
Sample Date	9/19/2016
Composited Depths	3,4
Arsenic	6
Barium	89
Cadmium	ND<0.5
Chromium	23
Cobalt	3.6
Copper	15
Lead	11
Mercury	0.036
Nickel	13
Vanadium	32
Zinc	44

LT-SBermB	
Sample Date	9/28/2016
Composited Depths	5,9,12,18
Arsenic	ND<3.0
Barium	50
Cadmium	ND<0.49
Chromium	15
Cobalt	2.5
Copper	17
Lead	9.7
Mercury	ND<0.020
Nickel	11
Vanadium	18
Zinc	28

LT-SBermA	
Sample Date	9/28/2016
Composited Depths	1,3,7,12,18
Arsenic	ND<3.0
Barium	57
Cadmium	ND<0.50
Chromium	13
Cobalt	2.5
Copper	9.4
Lead	9.2
Mercury	0.035
Nickel	7.3
Vanadium	20
Zinc	36

LT-19	
Sample Date	9/19/2016
Composited Depths	1,4
Arsenic	3.4
Barium	58
Cadmium	ND<0.49
Chromium	16
Cobalt	3.4
Copper	10
Lead	8.1
Mercury	ND<0.02
Nickel	10
Vanadium	28
Zinc	31

LT-22	
Sample Date	9/19/2016
Composited Depths	4,5
Arsenic	4.6
Barium	50
Cadmium	ND<0.5
Chromium	16
Cobalt	3.3
Copper	11
Lead	8.6
Mercury	0.034
Nickel	10
Vanadium	29
Zinc	31

LT-MW1B	
Sample Date	9/28/2016
Composited Depths	5,10,15,20,25
Arsenic	7.1
Barium	59
Cadmium	1.6
Chromium	28
Cobalt	4.1
Copper	13
Lead	26
Mercury	0.026
Nickel	13
Vanadium	34
Zinc	37

LT-26	
Sample Date	9/20/2016
Composited Depths	2,3
Arsenic	ND<15
Barium	90
Cadmium	7.1
Chromium	16
Cobalt	ND<5
Copper	ND<10
Lead	79
Mercury	0.12
Nickel	ND<10
Vanadium	16
Zinc	48
GRO (C4-C12)	ND<0.390
C13-C22	11
C23-C40	39
Aroclor 1016	ND<0.380
Aroclor 1221	ND<0.380
Aroclor 1232	ND<0.380
Aroclor 1242	ND<0.380
Aroclor 1248	ND<0.380
Aroclor 1254	ND<0.380
Aroclor 1260	ND<0.380

LT-27	
Sample Date	9/20/2016
Composited Depths	2,5
Arsenic	ND<3
Barium	86
Cadmium	ND<0.5
Chromium	11
Cobalt	1.8
Copper	8.7
Lead	12
Mercury	0.15
Nickel	6.7
Vanadium	19
Zinc	30

LT-21		
Sample Date	9/19/2016	9/19/2016
Depth	2	6
Arsenic	ND<6	ND<3
Barium	32	35
Cadmium	1.7	ND<0.5
Chromium	2000	12
Cobalt	16	2.7
Copper	10	8.4
Lead	32	7.8
Mercury	ND<0.02	ND<0.02
Nickel	150	7.5
Vanadium	69	24
Zinc	30	22

LT-32	
Sample Date	9/20/2016
Depth	4
Arsenic	ND<5.9
Barium	29
Cadmium	ND<0.99
Chromium	12
Cobalt	ND<2
Copper	11
Lead	18
Mercury	0.042
Nickel	6.4
Vanadium	30
Zinc	36

Notes:
1. Background referenced from plan titled "Encumbrance Map, Vacant Commercial Property, Jurupa Valley, California, Topographic Information by DRC Engineering, Inc., Dated 2 March 2016.
2. Approximate site limits refernced from plan titled "Crestmore Redvelopment, Jurupa Valley, CA - Preliminary Site Plan - Scheme A.01," Prepared by RGA Office of Architectural Design, Dated 11 May 2016.
3. Approximate limits of areas are referenced from "Crestmore Plant, Hazardous Material Business Plan (HMBP)" by Riverside TXI Cement, Dated 2009.
4. Limits of Cement Kiln Dust (CKD) Disposal Areas area referenced from "Draft Technical Memorandum No.1" by Sector, Dated 25 January 2001.
5. Transformer locations referenced from "Figure 2 - Site Map, for TXI Riverside Cement Crestmore Plant, 1500 Rubidoux Boulevard, Riverside, California 92509" by Stantec, Dated 26 July 2013.
6. Underground Storage Tank (UST)
7. Above Ground Storage Tank (AST)

300 0 300
SCALE IN FEET

Legend

- Approximate Groundwater Well Locations (MW-3)
- Approximate Boring Locations (LB-12, ALB-12 and ELB-1)
- Approximate Trench Locations (LT-10)
- Approximate Trench Location, 2017 (CB-TP-1)
- Area of Interest #11 - Former / Existing Transformers
- Area of Interest #1 - Areas with Soil Containing CKD
- Area of Interest #2 - Locations of Former USTs
- Area of Interest #3 - White Kiln Pipeline and Diesel Pump
- Area of Interest #4 - Former Boiler Blowdown Pond
- Area of Interest #5 - Former Spray Pond
- Area of Interest #6 - Former Sag Pond
- Area of Interest #7 - Hazardous Waste Storage Area
- Area of Interest #8 - Sewer Alignments
- Area of Interest #9 - Settling Area
- Area of Interest #10 - Major Fill Piles or Berms
- Area of Interest #12 - Storm Water Retention Basin
- Proposed Building Footprint
- Approximate Limits of Development
- Approximate Limits of Former Riverside Cement Manufacturing Plant
- Approximate Location of Key Site Features

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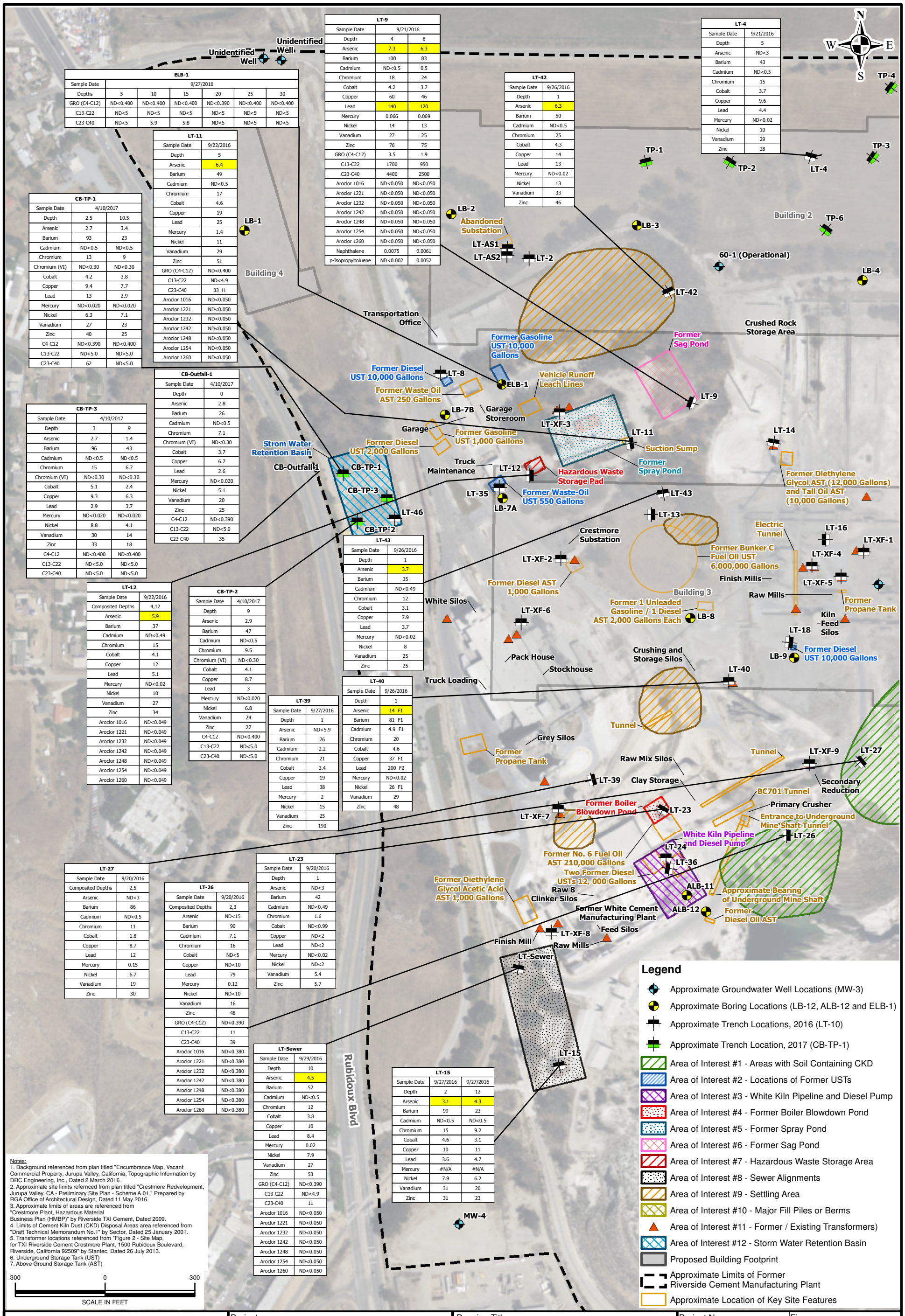
Project
AGUA MANSA COMMERCE PARK
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

Drawing Title
FIELD INVESTIGATION LOCATIONS AND ANALYTICAL RESULTS - EAST

Project No. 721011301
Date 31 OCTOBER 2017
Scale 1 " = 300 '
Drawn By OG
Figure 3A

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Path: \\langan.com\data\PAR\other\BSAYLOR\GIS_Projects\Agua_Mansa_Crestmore\ArcMap_Documents\Environmental_Figures\Remedial_Investigation_Report\Figure 4A - Field Investigation Locations and Analytical Results - East 20170927 (1).mxd



ELB-1						
Sample Date	9/27/2016					
Depths	5	10	15	20	25	30
GRO (C4-C12)	ND<0.400	ND<0.400	ND<0.400	ND<0.390	ND<0.400	ND<0.400
C13-C22	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5
C23-C40	ND<5	5.9	5.8	ND<5	ND<5	ND<5

LT-11	
Sample Date	9/22/2016
Depth	5
Arsenic	6.4
Barium	49
Cadmium	ND<0.5
Chromium	17
Cobalt	4.6
Copper	19
Lead	25
Mercury	1.4
Nickel	11
Vanadium	29
Zinc	51
GRO (C4-C12)	ND<0.400
C13-C22	ND<4.9
C23-C40	33 H
Aroclor 1016	ND<0.050
Aroclor 1221	ND<0.050
Aroclor 1232	ND<0.050
Aroclor 1242	ND<0.050
Aroclor 1248	ND<0.050
Aroclor 1254	ND<0.050
Aroclor 1260	ND<0.050

LT-9		
Sample Date	9/21/2016	
Depth	4	8
Arsenic	7.3	6.3
Barium	100	83
Cadmium	ND<0.5	0.5
Chromium	18	24
Cobalt	4.2	3.7
Copper	60	46
Lead	140	120
Mercury	0.066	0.069
Nickel	14	13
Vanadium	27	25
Zinc	76	75
GRO (C4-C12)	3.5	1.9
C13-C22	1700	950
C23-C40	4400	2500
Aroclor 1016	ND<0.050	ND<0.050
Aroclor 1221	ND<0.050	ND<0.050
Aroclor 1232	ND<0.050	ND<0.050
Aroclor 1242	ND<0.050	ND<0.050
Aroclor 1248	ND<0.050	ND<0.050
Aroclor 1254	ND<0.050	ND<0.050
Aroclor 1260	ND<0.050	ND<0.050
Naphthalene	0.0075	0.0061
p-Isopropyltoluene	ND<0.002	0.0052

LT-42	
Sample Date	9/26/2016
Depth	1
Arsenic	6.3
Barium	50
Cadmium	ND<0.5
Chromium	25
Cobalt	4.3
Copper	14
Lead	13
Mercury	ND<0.02
Nickel	13
Vanadium	33
Zinc	46

LT-4	
Sample Date	9/21/2016
Depth	5
Arsenic	ND<3
Barium	43
Cadmium	ND<0.5
Chromium	15
Cobalt	3.7
Copper	9.6
Lead	4.4
Mercury	ND<0.02
Nickel	10
Vanadium	29
Zinc	28

CB-TP-1		
Sample Date	4/10/2017	
Depth	2.5	10.5
Arsenic	2.7	3.4
Barium	93	23
Cadmium	ND<0.5	ND<0.5
Chromium	13	9
Chromium (VI)	ND<0.30	ND<0.30
Cobalt	4.2	3.8
Copper	9.4	7.7
Lead	13	2.9
Mercury	ND<0.020	ND<0.020
Nickel	6.3	7.1
Vanadium	27	23
Zinc	40	25
C4-C12	ND<0.390	ND<0.400
C13-C22	ND<5.0	ND<5.0
C23-C40	62	ND<5.0

CB-Outfall-1	
Sample Date	4/10/2017
Depth	0
Arsenic	2.8
Barium	26
Cadmium	ND<0.5
Chromium	7.1
Chromium (VI)	ND<0.30
Cobalt	3.7
Copper	6.7
Lead	2.6
Mercury	ND<0.020
Nickel	5.1
Vanadium	20
Zinc	25
C4-C12	ND<0.390
C13-C22	ND<5.0
C23-C40	35

CB-TP-3		
Sample Date	4/10/2017	
Depth	3	9
Arsenic	2.7	1.4
Barium	96	43
Cadmium	ND<0.5	ND<0.5
Chromium	15	6.7
Chromium (VI)	ND<0.30	ND<0.30
Cobalt	5.1	2.4
Copper	9.3	6.3
Lead	2.9	3.7
Mercury	ND<0.020	ND<0.020
Nickel	8.8	4.1
Vanadium	30	14
Zinc	33	18
C4-C12	ND<0.400	ND<0.400
C13-C22	ND<5.0	ND<5.0
C23-C40	ND<5.0	ND<5.0

LT-43	
Sample Date	9/26/2016
Depth	1
Arsenic	3.7
Barium	35
Cadmium	ND<0.49
Chromium	12
Cobalt	3.1
Copper	7.9
Lead	3.7
Mercury	ND<0.02
Nickel	8
Vanadium	25
Zinc	25

LT-12	
Sample Date	9/22/2016
Composited Depths	4,12
Arsenic	5.9
Barium	37
Cadmium	ND<0.49
Chromium	15
Cobalt	4.1
Copper	12
Lead	5.1
Mercury	ND<0.02
Nickel	10
Vanadium	27
Zinc	34
Aroclor 1016	ND<0.049
Aroclor 1221	ND<0.049
Aroclor 1232	ND<0.049
Aroclor 1242	ND<0.049
Aroclor 1248	ND<0.049
Aroclor 1254	ND<0.049
Aroclor 1260	ND<0.049

CB-TP-2	
Sample Date	4/10/2017
Depth	9
Arsenic	2.9
Barium	47
Cadmium	ND<0.5
Chromium	9.5
Chromium (VI)	ND<0.30
Cobalt	4.1
Copper	8.7
Lead	3
Mercury	ND<0.020
Nickel	6.8
Vanadium	24
Zinc	27
C4-C12	ND<0.400
C13-C22	ND<5.0
C23-C40	ND<5.0

LT-39	
Sample Date	9/27/2016
Depth	1
Arsenic	ND<5.9
Barium	76
Cadmium	2.2
Chromium	21
Cobalt	3.4
Copper	19
Lead	38
Mercury	2
Nickel	15
Vanadium	25
Zinc	190

LT-40	
Sample Date	9/26/2016
Depth	1
Arsenic	14 F1
Barium	81 F1
Cadmium	4.9 F1
Chromium	20
Cobalt	4.6
Copper	37 F1
Lead	200 F2
Mercury	ND<0.02
Nickel	26 F1
Vanadium	29
Zinc	48

LT-27	
Sample Date	9/20/2016
Composited Depths	2,5
Arsenic	ND<3
Barium	86
Cadmium	ND<0.5
Chromium	11
Cobalt	1.8
Copper	8.7
Lead	12
Mercury	0.15
Nickel	6.7
Vanadium	19
Zinc	30

LT-26	
Sample Date	9/20/2016
Composited Depths	2,3
Arsenic	ND<15
Barium	90
Cadmium	7.1
Chromium	16
Cobalt	ND<5
Copper	ND<10
Lead	79
Mercury	0.12
Nickel	ND<10
Vanadium	16
Zinc	48
GRO (C4-C12)	ND<0.390
C13-C22	11
C23-C40	39
Aroclor 1016	ND<0.380
Aroclor 1221	ND<0.380
Aroclor 1232	ND<0.380
Aroclor 1242	ND<0.380
Aroclor 1248	ND<0.380
Aroclor 1254	ND<0.380
Aroclor 1260	ND<0.380

LT-23	
Sample Date	9/20/2016
Depth	1
Arsenic	ND<3
Barium	42
Cadmium	ND<0.49
Chromium	1.6
Cobalt	ND<0.99
Copper	ND<2
Lead	ND<2
Mercury	ND<0.02
Nickel	ND<2
Vanadium	5.4
Zinc	5.7

LT-Sewer	
Sample Date	9/29/2016
Depth	10
Arsenic	4.5
Barium	52
Cadmium	ND<0.5
Chromium	12
Cobalt	3.8
Copper	10
Lead	8.4
Mercury	0.02
Nickel	7.9
Vanadium	27
Zinc	53
GRO (C4-C12)	ND<0.390
C13-C22	ND<4.9
C23-C40	11
Aroclor 1016	ND<0.050
Aroclor 1221	ND<0.050
Aroclor 1232	ND<0.050
Aroclor 1242	ND<0.050
Aroclor 1248	ND<0.050
Aroclor 1254	ND<0.050
Aroclor 1260	ND<0.050

LT-15		
Sample Date	9/27/2016	9/27/2016
Depth	2	12
Arsenic	3.1	4.3
Barium	99	23
Cadmium	ND<0.5	ND<0.5
Chromium	15	9.2
Cobalt	4.6	3.1
Copper	10	11
Lead	3.6	4.7
Mercury	#N/A	#N/A
Nickel	7.9	6.2
Vanadium	31	20
Zinc	31	23

Notes:
1. Background referenced from plan titled "Encumbrance Map, Vacant Commercial Property, Jurupa Valley, California, Topographic Information by DRC Engineering, Inc., Dated 2 March 2016.
2. Approximate site limits referenced from plan titled "Crestmore Redvelopment, Jurupa Valley, CA - Preliminary Site Plan - Scheme A.01," Prepared by RGA Office of Architectural Design, Dated 11 May 2016.
3. Approximate limits of areas are referenced from "Crestmore Plant, Hazardous Material Business Plan (HMBP)" by Riverside TXI Cement, Dated 2009.
4. Limits of Cement Kiln Dust (CKD) Disposal Areas area referenced from "Draft Technical Memorandum No.1" by Sector, Dated 25 January 2001.
5. Transformer locations referenced from "Figure 2 - Site Map, for TXI Riverside Cement Crestmore Plant, 1500 Rubidoux Boulevard, Riverside, California 92509" by Stantec, Dated 26 July 2013.
6. Underground Storage Tank (UST)
7. Above Ground Storage Tank (AST)

300 0 300
SCALE IN FEET

Legend

- Approximate Groundwater Well Locations (MW-3)
- Approximate Boring Locations (LB-12, ALB-12 and ELB-1)
- Approximate Trench Locations, 2016 (LT-10)
- Approximate Trench Location, 2017 (CB-TP-1)
- Area of Interest #1 - Areas with Soil Containing CKD
- Area of Interest #2 - Locations of Former USTs
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- Area of Interest #5 - Former Spray Pond
- Area of Interest #6 - Former Sag Pond
- Area of Interest #7 - Hazardous Waste Storage Area
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- Area of Interest #9 - Settling Area
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- Area of Interest #11 - Former / Existing Transformers)
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- Proposed Building Footprint
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Project
AGUA MANSA COMMERCE PARK
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

Drawing Title
FIELD INVESTIGATION LOCATIONS AND ANALYTICAL RESULTS - WEST

Project No.	Figure
721011301	3B
Date: 31 OCTOBER 2017	
Scale: 1 " = 300 '	
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APPENDIX A

Regulatory Database Search Results

Crestmore Site
1500 Rubidoux Boulevard
Riverside, CA 92509

Inquiry Number: 4569494.2s
March 21, 2016

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	194
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-9
Physical Setting Source Map Findings	A-11
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1500 RUBIDOUX BOULEVARD
RIVERSIDE, CA 92509

COORDINATES

Latitude (North):	34.0265100 - 34° 1' 35.43''
Longitude (West):	117.3846000 - 117° 23' 4.56''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	464493.2
UTM Y (Meters):	3764967.5
Elevation:	937 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5619058 FONTANA, CA
Version Date:	2012
Northeast Map:	5620416 SAN BERNARDINO SOUTH, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20120519, 20120428
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1500 RUBIDOUX BOULEVARD
RIVERSIDE, CA 92509

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	RIVERSIDE CEMENT CO	1500 RUBIDOUX BL	HIST UST, EMI		TP
A2	RIVERSIDE CEMENT CRE	1500 RUBIDOUX BLVD.	AST		TP
A3	RIVERSIDE CEMENT CO	1500 RUBIDOUX BLVD	HAZNET		TP
A4	TXI RIVERSIDE CEMENT	1500 RUBIDOUX BOULEV	FINDS, ECHO		TP
A5	RIVERSIDE CEMENT CO	1500 RUBIDOUX BLVD	FINDS, ECHO		TP
A6	RIVERSIDE CEMENT/TXI	1500 RUBEDOUX BLVD	HAZNET		TP
A7	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD	RGA LUST		TP
A8	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD	SWEEPS UST, CA FID UST		TP
A9	PANTHER IRON COMPANY	1500 RUBIDOUX BLVD	HAZNET		TP
A10	RIVERSIDE CEMENT CO	1500 RUBIDOUX BLVD	SEMS, US AIRS		TP
A11	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD.	TSCA		TP
A12	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEV	RGA LUST		TP
A13	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD	ENVIROSTOR, LUST, WMUDS/SWAT, LDS, EMI, HIST...		TP
14	CRESTMORE QUARRY		MINES	Lower	1 ft.
15	RIVERSIDE CEMENT CO		US MINES	Lower	30, 0.006, NNW
B16	FERRELLGAS LP DBA BL	1750 AGUA MANSA RD	RCRA-SQG	Lower	134, 0.025, South
B17	RA NELSON MRF TRANSF	1830 AGUA MANSA RD	SWF/LF, SWRCY, NPDES, PROC	Lower	278, 0.053, South
B18	BURRTEC WASTE INDUST	1830 AGUA MANSA RD	RCRA-LQG, FINDS, ECHO	Lower	278, 0.053, South
B19	HIGH TECH ARCHITECTU	1830 AGUA MANSA RD	SWF/LF, HAZNET	Lower	278, 0.053, South
B20	BURRTEC WASTE INDUST	1850 AGUA MANSA RD	UST	Lower	308, 0.058, South
B21	BURRTEC WASTE INDUST	1850 ASUA MANSA RD	RCRA-SQG, FINDS, HAZNET, ECHO	Lower	308, 0.058, South
C22		1700 CONTAINER CIR	EDR Hist Auto	Lower	311, 0.059, SW
C23		1796 CONTAINER CIR	EDR Hist Auto	Lower	435, 0.082, SW
C24		1775 CONTAINER CIR	EDR Hist Auto	Lower	436, 0.083, SW
C25		1821 CONTAINER CIR	EDR Hist Auto	Lower	498, 0.094, SW
D26	ADVANCE COLLISION	12073 CEDAR AVE	RCRA-SQG, FINDS, HAZNET, ECHO	Higher	511, 0.097, NW
D27		12073 CEDAR AVE	EDR Hist Auto	Higher	511, 0.097, NW
D28	PRESTIGE PAINT AND C	12073 CEDAR AVE	San Bern. Co. Permit	Higher	511, 0.097, NW
E29	SKANSKA	1995 AGUA MANSA RD	UST	Lower	550, 0.104, SSW
E30	E L YEAGER CONSTRUCT	1995 AGUA MANSA RD	SWEEPS UST, CA FID UST, EMI, NPDES, WDS	Lower	550, 0.104, SSW
F31	RYDER TRUCK RENTAL	5880 20TH ST	RCRA-SQG, SLIC, SWEEPS UST, HIST UST, CA FID UST,...	Lower	694, 0.131, SW
F32	RYDER TRUCK RENTAL,	5880 20TH ST	UST	Lower	694, 0.131, SW
F33	RYDER TRANSPORTATION	5880 20TH ST.	AST	Lower	694, 0.131, SW
F34	RYDER TRUCK RENTALS,	5880 20TH STREET	SLIC	Lower	694, 0.131, SW
35	OAKMONT EL RIVINO LL	5530 EL RIVINO RD	San Bern. Co. Permit	Higher	720, 0.136, NE
G36	CERTAIN-TEED CORPORA	2100 AVALON	LUST, HIST CORTESE, NPDES	Lower	999, 0.189, SW
G37	CERTAINTEED CORPORAT	2100 AVALON AVE	HAZNET, HWP	Lower	999, 0.189, SW
G38	CERTAINTEED, RIVERSI	2100 AVALON ST	HIST Cal-Sites	Lower	999, 0.189, SW
G39	USP RIVERSIDE LLC	2100 AVALON ST	RCRA-SQG, RESPONSE, ENVIROSTOR, LUST, HIST UST,...	Lower	999, 0.189, SW

MAPPED SITES SUMMARY

Target Property Address:
1500 RUBIDOUX BOULEVARD
RIVERSIDE, CA 92509

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
40	PRITCHETT, MR	11918 W HALL AVE	SWEEPS UST	Lower	1241, 0.235, NNE
G41	BRINE FAC,CRESTMORE	2100 AVALON ST.	WMUDS/SWAT	Lower	1243, 0.235, SW
H42	SOUTHLAND ENGINEERIN	1755 BROWN ST.	AST	Lower	1267, 0.240, ESE
H43	RIOS RECYCLING	1755 BROWN AVE.	SWF/LF, NPDES, WDS	Lower	1267, 0.240, ESE
H44	CAN FIBRE	1755 BROWN AVENUE	RCRA-SQG, FINDS, HAZNET, NPDES, ECHO	Lower	1267, 0.240, ESE
45	FLEETWOOD HOMES OF C	6001 20TH ST	RCRA-SQG	Lower	1293, 0.245, SW
46	VARNER CONSTRUCTION	1893 BROWN AVE	RCRA-SQG, LUST, FINDS, HAZNET, ECHO	Lower	1319, 0.250, East
47	MVP RV INC	5300 VIA RICARDO AVE	LUST, NPDES	Lower	2026, 0.384, SSE
48	RIOS RECYCLING FACIL	5190 WILSON ST.	SWF/LF	Lower	2616, 0.495, SE
49	SIERRA ALUMINUM CO.	2345 FLEETWOOD DRIVE	ENVIROSTOR, CHMIRS, NPDES	Lower	2964, 0.561, SSE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
RIVERSIDE CEMENT CO 1500 RUBIDOUX BL RIVERSIDE, CA 92509	HIST UST Facility Id: 00000065436 EMI Facility Id: 800182	N/A
RIVERSIDE CEMENT CRE 1500 RUBIDOUX BLVD. RIVERSIDE, CA 92509	AST	N/A
RIVERSIDE CEMENT CO 1500 RUBIDOUX BLVD RIVERSIDE, CA 92502	HAZNET GEPAID: CAD063844443	N/A
TXI RIVERSIDE CEMENT 1500 RUBIDOUX BOULEV RIVERSIDE, CA 92509	FINDS Registry ID:: 110001199587 ECHO	N/A
RIVERSIDE CEMENT CO 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	FINDS Registry ID:: 110041108565 ECHO	N/A
RIVERSIDE CEMENT/TXI 1500 RUBEDOUX BLVD RIVERSIDE, CA 92502	HAZNET GEPAID: CAC001472088	N/A
RIVERSIDE CEMENT 1500 RUBIDOUX BLVD RIVERSIDE, CA	RGA LUST	N/A
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	SWEEPS UST Status: A Tank Status: A Comp Number: 65436 CA FID UST Facility Id: 33003042 Status: A	N/A
PANTHER IRON COMPANY 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	HAZNET	N/A

GEPAID: CAC002584294

RIVERSIDE CEMENT CO 1500 RUBIDOUX BLVD RIVERSIDE, CA 92502	SEMS Site ID: 0901505 EPA Id: CAD063844443 US AIRS EPA plant ID:: 110001199587	CAD063844443
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD. RIVERSIDE, CA 92509	TSCA	N/A
RIVERSIDE CEMENT 1500 RUBIDOUX BOULEV RIVERSIDE, CA	RGA LUST	N/A
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD RIVERSIDE, CA 92506	ENVIROSTOR Facility Id: 33140002 Status: Refer: RWQCB LUST Status: Completed - Case Closed Facility Status: Case Closed Facility Id: 89210 Global Id: T0606500166 Facility Status: 9 Global ID: T0606500166 WMUDS/SWAT LDS Global Id: L10003541579 Status: Completed - Case Closed EMI Facility Id: 800182 HIST CORTESE Reg Id: 083301366T NPDES Facility Status: Active WDS Facility Status: A Facility Id: 8 33I002053	N/A

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing

INDIAN UST ---- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP ---- Voluntary Cleanup Program Properties
INDIAN VCP ---- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

HAULERS ---- Registered Waste Tire Haulers Listing
INDIAN ODI ---- Report on the Status of Open Dumps on Indian Lands
ODI ---- Open Dump Inventory
DEBRIS REGION 9 ---- Torres Martinez Reservation Illegal Dump Site Locations

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---- National Clandestine Laboratory Register
SCH ---- School Property Evaluation Program
CDL ---- Clandestine Drug Labs
Toxic Pits ---- Toxic Pits Cleanup Act Sites
US CDL ---- Clandestine Drug Labs

Local Land Records

LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information
DEED ---- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
CHMIRS ---- California Hazardous Material Incident Report System
MCS ---- Military Cleanup Sites Listing
SPILLS 90 ---- SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR ---- RCRA - Non Generators / No Longer Regulated
FUDS ---- Formerly Used Defense Sites
DOD ---- Department of Defense Sites
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---- Financial Assurance Information
EPA WATCH LIST ---- EPA WATCH LIST
2020 COR ACTION ---- 2020 Corrective Action Program List

TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HWT	Registered Hazardous Waste Transporter Database
MWMP	Medical Waste Management Program Listing
PEST LIC	Pesticide Regulation Licenses Listing
Notify 65	Proposition 65 Records
UIC	UIC Listing
WASTEWATER PITS	Oil Wastewater Pits Listing
WIP	Well Investigation Program Case List
FUELS PROGRAM	EPA Fuels Program Registered Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Cleaner	EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 06/09/2015 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BURRTEC WASTE INDUST	***1830 AGUA MANSA RD***	***S 0 - 1/8 (0.053 mi.)***	***B18***	***89***

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/09/2015 has revealed that there are 8 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ADVANCE COLLISION	***12073 CEDAR AVE***	***NW 0 - 1/8 (0.097 mi.)***	***D26***	***103***

Lower Elevation	Address	Direction / Distance	Map ID	Page
FERRELLGAS LP DBA BL	1750 AGUA MANSA RD	S 0 - 1/8 (0.025 mi.)	B16	80
BURRTEC WASTE INDUST	***1850 ASUA MANSA RD***	***S 0 - 1/8 (0.058 mi.)***	***B21***	***96***
RYDER TRUCK RENTAL	***5880 20TH ST***	***SW 1/8 - 1/4 (0.131 mi.)***	***F31***	***115***
USP RIVERSIDE LLC	***2100 AVALON ST***	***SW 1/8 - 1/4 (0.189 mi.)***	***G39***	***134***
CAN FIBRE	***1755 BROWN AVENUE***	***ESE 1/8 - 1/4 (0.240 mi.)***	***H44***	***161***
FLEETWOOD HOMES OF C	6001 20TH ST	SW 1/8 - 1/4 (0.245 mi.)	45	168
VARNER CONSTRUCTION	***1893 BROWN AVE***	***E 1/8 - 1/4 (0.250 mi.)***	***46***	***169***

State- and tribal - equivalent NPL

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, and dated 11/07/2015 has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
USP RIVERSIDE LLC	***2100 AVALON ST***	***SW 1/8 - 1/4 (0.189 mi.)***	***G39***	***134***
Status: Certified Facility Id: 33320002				

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 11/07/2015 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
USP RIVERSIDE LLC	***2100 AVALON ST***	***SW 1/8 - 1/4 (0.189 mi.)***	***G39***	***134***
Facility Id: 80001506 Facility Id: 33320002 Status: * Inactive Status: Certified				
SIERRA ALUMINUM CO.	***2345 FLEETWOOD DRIVE***	***SSE 1/2 - 1 (0.561 mi.)***	***49***	***187***
Facility Id: 71002953 Status: Inactive - Needs Evaluation				

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, and dated 11/16/2015 has revealed that there are 4 SWF/LF sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RA NELSON MRF TRANSF	***1830 AGUA MANSA RD***	***S 0 - 1/8 (0.053 mi.)***	***B17***	***81***

Facility ID: 33-AA-0319
Facility ID: 33-AA-0258
Operational Status: Active
Regulation Status: Notification
Regulation Status: Permitted

HIGH TECH ARCHITECTU	***1830 AGUA MANSA RD***	***S 0 - 1/8 (0.053 mi.)***	***B19***	***94***
Site ID: 2759 Status: Active				
RIOS RECYCLING	***1755 BROWN AVE.***	***ESE 1/8 - 1/4 (0.240 mi.)***	***H43***	***157***
Site ID: 2748 Status: Active				
RIOS RECYCLING FACIL	5190 WILSON ST.	SE 1/4 - 1/2 (0.495 mi.)	48	186
Facility ID: 33-AA-0355 Operational Status: Active Regulation Status: Notification				

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 12/14/2015 has revealed that there are 4 LUST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAIN-TEED CORPORA	***2100 AVALON***	***SW 1/8 - 1/4 (0.189 mi.)***	***G36***	***127***
Status: Completed - Case Closed Global Id: T0606500050				
USP RIVERSIDE LLC	***2100 AVALON ST***	***SW 1/8 - 1/4 (0.189 mi.)***	***G39***	***134***
Facility Status: Case Closed Facility Id: 91654 Facility Status: 9 Global ID: T0606500050				
VARNER CONSTRUCTION	***1893 BROWN AVE***	***E 1/8 - 1/4 (0.250 mi.)***	***46***	***169***
Status: Completed - Case Closed Facility Status: Case Closed Facility Id: 95084 Facility Id: 95084 Status: Case Closed Global Id: T0606500417 Facility Status: 9 Global ID: T0606500417				
MVP RV INC	***5300 VIA RICARDO AVE***	***SSE 1/4 - 1/2 (0.384 mi.)***	***47***	***177***
Status: Completed - Case Closed Facility Status: Preliminary site assessment underway Facility Id: 200420231 Global Id: T0606540693 Facility Status: 9 Global ID: T0606540693				

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 12/14/2015 has revealed that there are 2 SLIC sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RYDER TRUCK RENTAL Facility Status: Completed - Case Closed Global Id: SLT8R1734113	***5880 20TH ST***	***SW 1/8 - 1/4 (0.131 mi.)***	***F31***	***115***
RYDER TRUCK RENTALS, Facility Status: Closed	5880 20TH STREET	SW 1/8 - 1/4 (0.131 mi.)	F34	126

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 12/14/2015 has revealed that there are 3 UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BURRTEC WASTE INDUST Facility Id: 123	1850 AGUA MANSA RD	S 0 - 1/8 (0.058 mi.)	B20	96
SKANSKA Facility Id: 290	1995 AGUA MANSA RD	SSW 0 - 1/8 (0.104 mi.)	E29	109
RYDER TRUCK RENTAL, Facility Id: 660	5880 20TH ST	SW 1/8 - 1/4 (0.131 mi.)	F32	126

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, and dated 08/01/2009 has revealed that there are 2 AST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RYDER TRANSPORTATION	5880 20TH ST.	SW 1/8 - 1/4 (0.131 mi.)	F33	126
SOUTHLAND ENGINEERIN	1755 BROWN ST.	ESE 1/8 - 1/4 (0.240 mi.)	H42	157

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there is

1 WMUDS/SWAT site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BRINE FAC,CRESTMORE	2100 AVALON ST.	SW 1/8 - 1/4 (0.235 mi.)	G41	155

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 12/14/2015 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RA NELSON MRF TRANSF Cert Id: RC7808	***1830 AGUA MANSA RD***	***S 0 - 1/8 (0.053 mi.)***	***B17***	***81***

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED, RIVERSI	2100 AVALON ST	SW 1/8 - 1/4 (0.189 mi.)	G38	132

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 3 SWEEPS UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
E L YEAGER CONSTRUCT Status: A Tank Status: A Comp Number: 83	***1995 AGUA MANSA RD***	***SSW 0 - 1/8 (0.104 mi.)***	***E30***	***109***
RYDER TRUCK RENTAL Status: A Tank Status: A Comp Number: 8135	***5880 20TH ST***	***SW 1/8 - 1/4 (0.131 mi.)***	***F31***	***115***
PRITCHETT, MR Status: A	11918 W HALL AVE	NNE 1/8 - 1/4 (0.235 mi.)	40	155

Tank Status: A
Comp Number: 13392

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RYDER TRUCK RENTAL Facility Id: 00000008135	***5880 20TH ST***	***SW 1/8 - 1/4 (0.131 mi.)***	***F31***	***115***
USP RIVERSIDE LLC Facility Id: 00000016439	***2100 AVALON ST***	***SW 1/8 - 1/4 (0.189 mi.)***	***G39***	***134***

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 2 CA FID UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
E L YEAGER CONSTRUCT Facility Id: 33002486 Status: A	***1995 AGUA MANSA RD***	***SSW 0 - 1/8 (0.104 mi.)***	***E30***	***109***
RYDER TRUCK RENTAL Facility Id: 33002250 Status: A	***5880 20TH ST***	***SW 1/8 - 1/4 (0.131 mi.)***	***F31***	***115***

Other Ascertainable Records

US MINES: Mines Master Index File. The source of this database is the Dept. of Labor, Mine Safety and Health Administration.

A review of the US MINES list, as provided by EDR, and dated 08/18/2015 has revealed that there is 1 US MINES site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RIVERSIDE CEMENT CO		NNW 0 - 1/8 (0.006 mi.)	15	74

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there is 1 HIST CORTESE site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAIN-TEED CORPORA	***2100 AVALON***	***SW 1/8 - 1/4 (0.189 mi.)***	***G36***	***127***
Reg Id: 083300480T				

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 11/23/2015 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED CORPORAT	***2100 AVALON AVE***	***SW 1/8 - 1/4 (0.189 mi.)***	***G37***	***131***
EPA Id: CAD990663320				
Cleanup Status: UNKNOWN				

MINES: A listing of mine site locations from the Office of Mine Reclamation.

A review of the MINES list, as provided by EDR, and dated 12/14/2015 has revealed that there is 1 MINES site within approximately 0.001 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CRESTMORE QUARRY		0 - 1/8 (0.000 mi.)	14	73

San Bern. Co. Permit: San Bernardino County Fire Department Hazardous Materials Division.

A review of the San Bern. Co. Permit list, as provided by EDR, and dated 12/14/2015 has revealed that there are 2 San Bern. Co. Permit sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PRESTIGE PAINT AND C	12073 CEDAR AVE	NW 0 - 1/8 (0.097 mi.)	D28	109
Facility Status: INACTIVE				
Facility Id: FA0003921				
OAKMONT EL RIVINO LL	5530 EL RIVINO RD	NE 1/8 - 1/4 (0.136 mi.)	35	126
Facility Status: INACTIVE				
Facility Id: FA0012739				
Facility Id: FA0002885				

PROC: A listing of certified processors.

A review of the PROC list, as provided by EDR, and dated 12/14/2015 has revealed that there is 1 PROC site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RA NELSON MRF TRANSF	***1830 AGUA MANSA RD***	***S 0 - 1/8 (0.053 mi.)***	***B17***	***81***
Cert Id: PR0399				
Reg Id: 26414				

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 5 EDR Hist Auto sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	12073 CEDAR AVE	NW 0 - 1/8 (0.097 mi.)	D27	108

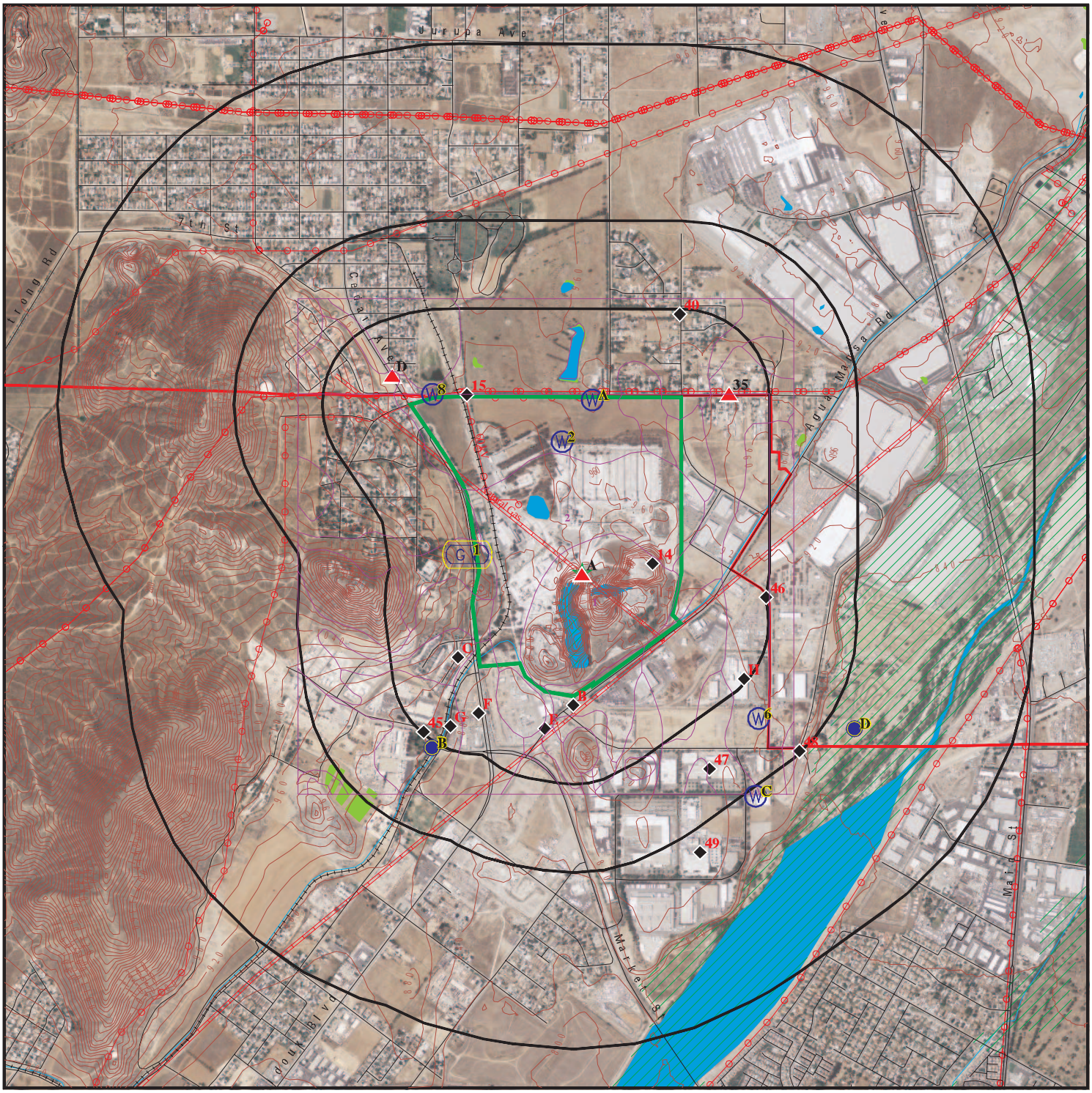
Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	1700 CONTAINER CIR	SW 0 - 1/8 (0.059 mi.)	C22	102
Not reported	1796 CONTAINER CIR	SW 0 - 1/8 (0.082 mi.)	C23	102
Not reported	1775 CONTAINER CIR	SW 0 - 1/8 (0.083 mi.)	C24	102
Not reported	1821 CONTAINER CIR	SW 0 - 1/8 (0.094 mi.)	C25	103

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
HIGH SCHOOL - CEDAR AVENUE	ENVIROSTOR, SCH

OVERVIEW MAP - 4569494.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

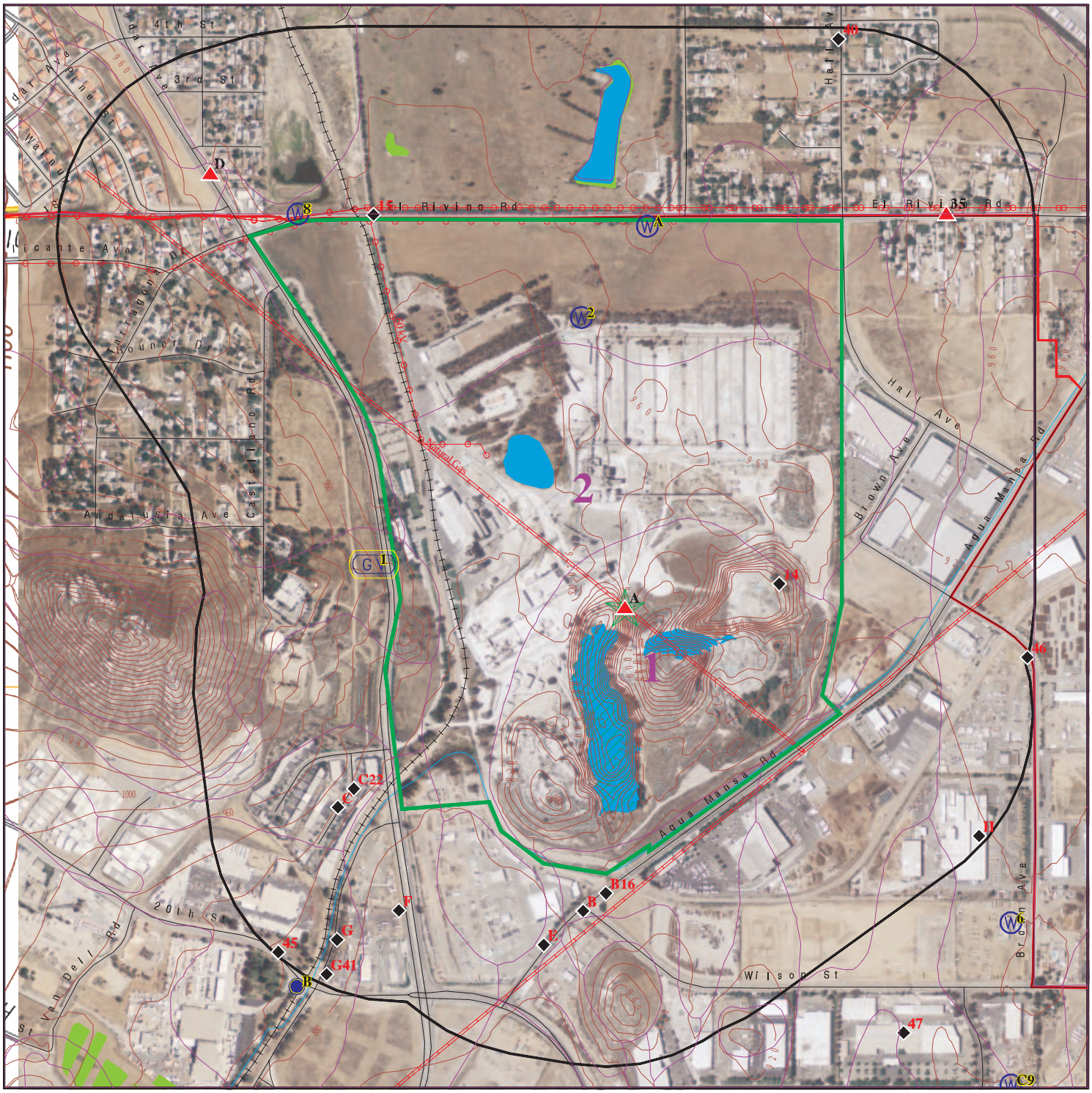
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Crestmore Site	CLIENT: Langan Engineering
ADDRESS: 1500 Rubidoux Boulevard Riverside CA 92509	CONTACT: Jose Baron
LAT/LONG: 34.02651 / 117.3846	INQUIRY #: 4569494.2s
	DATE: March 21, 2016 2:52 pm

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DETAIL MAP - 4569494.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites

0 1/8 1/4 1/2 Miles

- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	Crestmore Site	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Boulevard Riverside CA 92509	CONTACT:	Jose Baron
LAT/LONG:	34.02651 / 117.3846	INQUIRY #:	4569494.2s
		DATE:	March 21, 2016 2:52 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500	1	0	0	0	NR	NR	1
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		1	0	NR	NR	NR	1
RCRA-SQG	0.250		3	5	NR	NR	NR	8
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	1	0	0	NR	1
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000	1	0	1	0	1	NR	3
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		2	1	1	NR	NR	4
State and tribal leaking storage tank lists								
LUST	0.500	1	0	3	1	NR	NR	5

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	2	0	NR	NR	2
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		2	1	NR	NR	NR	3
AST	0.250	1	0	2	NR	NR	NR	3
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500	1	0	1	0	NR	NR	2
SWRCY	0.500		1	0	0	NR	NR	1
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	1	0	0	NR	1
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250	1	1	2	NR	NR	NR	4
HIST UST	0.250	1	0	2	NR	NR	NR	3
CA FID UST	0.250	1	1	1	NR	NR	NR	3
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001	1	0	NR	NR	NR	NR	1
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001	1	0	NR	NR	NR	NR	1
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001	1	0	NR	NR	NR	NR	1
US MINES	0.250		1	0	NR	NR	NR	1
FINDS	0.001	2	0	NR	NR	NR	NR	2
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001	2	0	NR	NR	NR	NR	2
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001	3	0	NR	NR	NR	NR	3
HIST CORTESE	0.500	1	0	1	0	NR	NR	2
HWP	1.000		0	1	0	0	NR	1
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		1	NR	NR	NR	NR	1
MWMP	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPDES	0.001	1	0	NR	NR	NR	NR	1
San Bern. Co. Permit	0.250		1	1	NR	NR	NR	2
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		1	0	0	NR	NR	1
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001	1	0	NR	NR	NR	NR	1
WIP	0.250		0	0	NR	NR	NR	0
ECHO	0.001	2	0	NR	NR	NR	NR	2
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		5	NR	NR	NR	NR	5
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001	2	0	NR	NR	NR	NR	2
- Totals --		25	20	26	2	1	0	74

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1
Target
Property

RIVERSIDE CEMENT CO (EIS USE)
1500 RUBIDOUX BL
RIVERSIDE, CA 92509

HIST UST **U001576600**
EMI **N/A**

Site 1 of 13 in cluster A

Actual:
937 ft.

HIST UST:

File Number:	0001F6CC
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F6CC.pdf
Region:	STATE
Facility ID:	00000065436
Facility Type:	Other
Other Type:	CEMENT
Contact Name:	Not reported
Telephone:	7146833660
Owner Name:	GIFFORD-HILL INC.
Owner Address:	300 EAST JOHN CARPENTER FREEWA
Owner City,St,Zip:	IRVING, TX 75062
Total Tanks:	0007
Tank Num:	001
Container Num:	DIESEL #1
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	GASOLINE#1
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	AB #1
Year Installed:	Not reported
Tank Capacity:	00002000
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	None
Tank Num:	004
Container Num:	AB #2
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	None
Tank Num:	005
Container Num:	AB #3
Year Installed:	Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

Tank Capacity: 00000000
Tank Used for: PRODUCT
Type of Fuel: 06
Container Construction Thickness: Not reported
Leak Detection: Visual

Tank Num: 006
Container Num: DIESEL 2A
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 007
Container Num: DISEL #2B
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Click here for Geo Tracker PDF:

EMI:
Year: 1987
County Code: 33
Air Basin: SC
Facility ID: 800182
Air District Name: SC
SIC Code: 3255
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 9
Reactive Organic Gases Tons/Yr: 4
Carbon Monoxide Emissions Tons/Yr: 233
NOX - Oxides of Nitrogen Tons/Yr: 555
SOX - Oxides of Sulphur Tons/Yr: 68
Particulate Matter Tons/Yr: 110
Part. Matter 10 Micrometers & Smllr Tons/Yr: 98

Year: 1990
County Code: 33
Air Basin: SC
Facility ID: 800182
Air District Name: SC
SIC Code: 3255
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 21
Reactive Organic Gases Tons/Yr: 9
Carbon Monoxide Emissions Tons/Yr: 107
NOX - Oxides of Nitrogen Tons/Yr: 59

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

SOX - Oxides of Sulphur Tons/Yr:	61
Particulate Matter Tons/Yr:	97
Part. Matter 10 Micrometers & Smllr Tons/Yr:	89
Year:	1995
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3255
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	12
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	84
NOX - Oxides of Nitrogen Tons/Yr:	51
SOX - Oxides of Sulphur Tons/Yr:	12
Particulate Matter Tons/Yr:	47
Part. Matter 10 Micrometers & Smllr Tons/Yr:	43
Year:	1997
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers & Smllr Tons/Yr:	46
Year:	1998
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7
Reactive Organic Gases Tons/Yr:	6
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers & Smllr Tons/Yr:	44
Year:	1999
County Code:	33

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers & Smllr Tons/Yr:	46

Year:	2000
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers & Smllr Tons/Yr:	46

Year:	2001
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	46
NOX - Oxides of Nitrogen Tons/Yr:	59
SOX - Oxides of Sulphur Tons/Yr:	17
Particulate Matter Tons/Yr:	41
Part. Matter 10 Micrometers & Smllr Tons/Yr:	38

Year:	2009
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3.1786142691247098E-2
Reactive Organic Gases Tons/Yr:	0.0179197
Carbon Monoxide Emissions Tons/Yr:	0.15273999999999999
NOX - Oxides of Nitrogen Tons/Yr:	0.26882
SOX - Oxides of Sulphur Tons/Yr:	0.0011255
Particulate Matter Tons/Yr:	3.7936100000000001
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3.49106344
Year:	2011
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.023880149034
Reactive Organic Gases Tons/Yr:	0.01282
Carbon Monoxide Emissions Tons/Yr:	0.12405
NOX - Oxides of Nitrogen Tons/Yr:	0.21599
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2.30864
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2.12480328

A2 **RIVERSIDE CEMENT CRESTMORE PLANT** **AST** **A100108116**
Target **1500 RUBIDOUX BLVD.** **N/A**
Property **RIVERSIDE, CA 92509**

Site 2 of 13 in cluster A

Actual: **937 ft.**

AST:

Certified Unified Program Agencies:	Riverside
Owner:	RIVERSIDE CEMENT COMPANY
Total Gallons:	5,000

A3 **RIVERSIDE CEMENT CO A CA GEN PARTNERSHIP** **HAZNET** **S113001343**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92502**

Site 3 of 13 in cluster A

Actual: **937 ft.**

HAZNET:

envid:	S113001343
Year:	2014
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7602455321
Mailing Name:	Not reported
Mailing Address:	PO BOX 146
Mailing City,St,Zip:	ORO GRANDE, CA 923680000
Gen County:	Riverside
TSD EPA ID:	CAD982444481
TSD County:	San Bernardino
Waste Category:	Other organic solids

RIVERSIDE CEMENT CO A CA GEN PARTNERSHIP (Continued) **S113001343**

Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	3.336
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside
envid:	S113001343
Year:	2013
GEPAID:	CAD063844443
Contact:	MICHAEL MEINNEN
Telephone:	7602455321
Mailing Name:	Not reported
Mailing Address:	PO BOX 146
Mailing City,St,Zip:	ORO GRANDE, CA 923680146
Gen County:	Riverside
TSD EPA ID:	CAD982444481
TSD County:	San Bernardino
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.001
Cat Decode:	Not reported
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Not reported
envid:	S113001343
Year:	2013
GEPAID:	CAD063844443
Contact:	MICHAEL MEINNEN
Telephone:	7602455321
Mailing Name:	Not reported
Mailing Address:	PO BOX 146
Mailing City,St,Zip:	ORO GRANDE, CA 923680146
Gen County:	Riverside
TSD EPA ID:	CAD982444481
TSD County:	San Bernardino
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.5084
Cat Decode:	Not reported
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Not reported
envid:	S113001343
Year:	2013
GEPAID:	CAD063844443
Contact:	MICHAEL MEINNEN
Telephone:	7602455321
Mailing Name:	Not reported
Mailing Address:	PO BOX 146
Mailing City,St,Zip:	ORO GRANDE, CA 923680146
Gen County:	Riverside
TSD EPA ID:	CAD982444481
TSD County:	San Bernardino
Waste Category:	Not reported

RIVERSIDE CEMENT CO A CA GEN PARTNERSHIP (Continued) **S113001343**

Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.085
Cat Decode: Not reported
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Not reported

envid: S113001343
Year: 2013
GEPAID: CAD063844443
Contact: MICHAEL MEINNEN
Telephone: 7602455321
Mailing Name: Not reported
Mailing Address: PO BOX 146
Mailing City,St,Zip: ORO GRANDE, CA 923680146
Gen County: Riverside
TSD EPA ID: CAD982444481
TSD County: San Bernardino
Waste Category: Not reported
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 7.35
Cat Decode: Not reported
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Not reported

Click this hyperlink while viewing on your computer to access
109 additional CA_HAZNET: record(s) in the EDR Site Report.

A4 Target Property **TXI RIVERSIDE CEMENT CO CRESTMORE PLANT** **FINDS 1016068533**
1500 RUBIDOUX BOULEVARD **ECHO N/A**
RIVERSIDE, CA 92509

Site 4 of 13 in cluster A

Actual: 937 ft.

FINDS:

Registry ID: 110001199587

Environmental Interest/Information System
AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

CERCLIS (Comprehensive Environmental Response, Compensation, and

TXI RIVERSIDE CEMENT CO CRESTMORE PLANT (Continued) **1016068533**

Liability Information System) is the Superfund database that is used to support management in all phases of the Superfund program. The system contains information on all aspects of hazardous waste sites, including an inventory of sites, planned and actual site activities, and financial information.

AIR MAJOR

ECHO:

Envid:	1016068533
Registry ID:	110001199587
FIPS Code:	06065
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	N
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.02706
Longitude:	-117.38958
Map Icon:	CAA-IC-MJ-1.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	CENTER OF A FACILITY OR STATION
Accuracy Meters:	30
Derived Tribes:	San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.4 mile(s), San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.4 mile(s)
Derived Huc:	18070203
Derived WBD:	Not reported
Derived STCT FPS:	06065
Derived Zip:	92509
Derived CD113:	41
Derived CB2010:	060650401011004
Percent Minority:	82.001
Pop Den:	2323
Major Flag:	Y
Active Flag:	Y
MYRTK Universe:	NNN
Inspection Count:	5
Date Last Inspection:	05/27/2015
Days Last Inspection:	116
Informal Count:	3
Date Last Informal Action:	09/18/2013
Formal Action Count:	3
Date Last Formal Action:	02/06/2014
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	06/26/2009
Last Penalty Amount:	10000
QTRS in NC:	7
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	SS_SSSSS____

TXI RIVERSIDE CEMENT CO CRESTMORE PLANT (Continued) **1016068533**

AFS Flag:	Y
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	N
TRI Flag:	N
GHG Flag:	N
AFS IDS:	CASCA0000606500003
CAA Permit Types:	Major Emissions
CAA NAICS:	327124
CAA SICS:	3255
CAA Evaluation Count:	5
CAA Days Last Evaluation:	116
CAA Informal Count:	3
CAA Formal Action Count:	3
CAA Date Last Formal Action:	02/06/2014
CAA Penalties:	0
CAA Last Penality Date:	06/26/2009
CAA Last Penality Amount:	10000
CAA Qtrs in NC:	7
CAA Curr Compliance Status:	No Violation
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	SS_SSSSS____
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	Not reported
RCRA Permit Types:	Not reported
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	Not reported
RCRA Curr Compliance Status:	Not reported
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	Not reported
SDWA IDS:	Not reported

TXI RIVERSIDE CEMENT CO CRESTMORE PLANT (Continued) **1016068533**

SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	92508RVRSD1500R
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Y
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110001199587
Facility SIC Codes:	3241 3255
Facility NAICS Codes:	327124 327310
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	02/06/2014
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	09/18/2013
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

A5 **RIVERSIDE CEMENT CO (EIS USE)** **FINDS** **1014675933**
Target **1500 RUBIDOUX BLVD** **ECHO** **N/A**
Property **RIVERSIDE, CA 92509**

Site 5 of 13 in cluster A

Actual:
937 ft.

FINDS:

Registry ID: 110041108565

Environmental Interest/Information System
HAZARDOUS AIR POLLUTANT MAJOR

ECHO:

Envid:	1014675933
Registry ID:	110041108565
FIPS Code:	06065
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.027682
Longitude:	-117.385502
Map Icon:	NONE-UNK-MN-N.png
Collection Method:	INTERPOLATION-SATELLITE

RIVERSIDE CEMENT CO (EIS USE) (Continued) **1014675933**

Reference Point:	Not reported
Accuracy Meters:	200
Derived Tribes:	San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.3 mile(s)
Derived Huc:	18070203
Derived WBD:	180702030804
Derived STCT FPS:	06065
Derived Zip:	92509
Derived CD113:	41
Derived CB2010:	060650401011002
Percent Minority:	81.835
Pop Den:	2241.6
Major Flag:	Not reported
Active Flag:	Not reported
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	Not reported
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	Not reported
Programs in SNC:	0
Curr Compliance Status:	Not reported
Curr SNC Flag:	N
3yr Compliance Status:	Not reported
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	N
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **1014675933**

CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	Not reported
RCRA Permit Types:	Not reported
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	Not reported
RCRA Curr Compliance Status:	Not reported
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	Not reported
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110041108565
Facility SIC Codes:	Not reported
Facility NAICS Codes:	327310
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **1014675933**

Facility Federal Agency: Not reported
TRI Reporter: Not reported
Facility IMP Water Flag: Not reported

A6 **RIVERSIDE CEMENT/TXI RIVERSIDE CEMENT** **HAZNET** **S112893771**
Target **1500 RUBEDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92502**

Site 6 of 13 in cluster A

Actual:
937 ft.

HAZNET:

envid:	S112893771
Year:	1999
GEPAID:	CAC001472088
Contact:	TXI RIVERSIDE CEMENT
Telephone:	9096836458
Mailing Name:	Not reported
Mailing Address:	PO BOX 56040
Mailing City,St,Zip:	RIVERSIDE, CA 925170000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	12.9270
Cat Decode:	Waste oil and mixed oil
Method Decode:	Recycler
Facility County:	Riverside

A7 **RIVERSIDE CEMENT** **RGA LUST** **S114677341**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA**

Site 7 of 13 in cluster A

Actual:
937 ft.

RGA LUST:

2012	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2011	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2010	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2009	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2008	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2007	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2006	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2005	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2004	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2003	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2002	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2001	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD

A8 **RIVERSIDE CEMENT COMPANY** **SWEEPS UST** **S101619622**
Target **1500 RUBIDOUX BLVD** **CA FID UST** **N/A**
Property **RIVERSIDE, CA 92509**

Site 8 of 13 in cluster A

Actual:
937 ft.

SWEEPS UST:

Status:	Active
Comp Number:	65436
Number:	1
Board Of Equalization:	44-018479
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	33-000-065436-000008
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	2

Status:	Active
Comp Number:	65436
Number:	1
Board Of Equalization:	44-018479
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	33-000-065436-000009
Tank Status:	A
Capacity:	10000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	33003042
Regulated By:	UTNKA
Regulated ID:	00065436
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7146833660
Mail To:	Not reported
Mailing Address:	P O BOX 832
Mailing Address 2:	Not reported
Mailing City,St,Zip:	RIVERSIDE 92509
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

A9 **PANTHER IRON COMPANY INC** **HAZNET** **S112941758**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92509**

Site 9 of 13 in cluster A

Actual:
937 ft.

HAZNET:

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	D006
Disposal Method:	Disposal, Land Fill
Tons:	32.02
Cat Decode:	Not reported
Method Decode:	Disposal, Land Fill
Facility County:	Riverside

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	D008
Disposal Method:	Disposal, Land Fill
Tons:	15.17
Cat Decode:	Not reported
Method Decode:	Disposal, Land Fill
Facility County:	Riverside

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	D006
Disposal Method:	Disposal, Other
Tons:	94.39
Cat Decode:	Not reported
Method Decode:	Disposal, Other

PANTHER IRON COMPANY INC (Continued) **S112941758**

Facility County: Riverside

A10 **RIVERSIDE CEMENT CO CRESTMORE PLT** **SEMS** **1000218306**
Target **1500 RUBIDOUX BLVD** **US AIRS** **CAD063844443**
Property **RIVERSIDE, CA 92502**

Site 10 of 13 in cluster A

Actual: 937 ft.

SEMS:

Site ID:	901505
EPA ID:	CAD063844443
Federal Facility:	N
NPL:	Not on the NPL
Non NPL Status:	Other Cleanup Activity: State-Lead Cleanup

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID:	0901505
EPA ID:	CAD063844443
Facility County:	RIVERSIDE
Short Name:	RIVERSIDE CEMENT CO CREST
Congressional District:	36
IFMS ID:	Not reported
SMSA Number:	6780
USGC Hydro Unit:	18070203
Federal Facility:	Not a Federal Facility
DMNSN Number:	0.00000
Site Orphan Flag:	N
RCRA ID:	Not reported
USGS Quadrangle:	Not reported
Site Init By Prog:	Not reported
NFRAP Flag:	Not reported
Parent ID:	Not reported
RST Code:	Not reported
EPA Region:	09
Classification:	Not reported
Site Settings Code:	Not reported
NPL Status:	Not on the NPL
DMNSN Unit Code:	Not reported
RBRAC Code:	Not reported
RResp Fed Agency Code:	Not reported
Non NPL Status:	Other Cleanup Activity: State-Lead Cleanup
Non NPL Status Date:	06/06/07
Site Fips Code:	06065
CC Concurrence Date:	/ /
CC Concurrence FY:	Not reported
Alias EPA ID:	Not reported
Site FUDS Flag:	Not reported

CERCLIS Site Contact Name(s):

Contact ID:	13003854.00000
Contact Name:	Leslie Ramirez
Contact Tel:	(415) 972-3978
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported
Contact ID:	13003858.00000
Contact Name:	Sharon Murray

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Contact Tel: (415) 972-4250
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13004003.00000
Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Alias Comments: Not reported
Site Description: 10/07" Envirostor DISCOVERY 4/25/1983 FACILITY IDENTIFIED ID FROM REGION 9 EMS DATABASE DISCOVERY 10/12/1983 FACILITY IDENTIFIED ID FROM ERRIS PA PRELIMINARY ASSESSMENT REPORT 6/1/1984 T/C W/ MALLORY S.MAY,GIFFORD HILL CO,214 -258-7175, 7/16/84 -1)SOURCE ACT: KLIN FIRED, CEMENT MFG 2)YR OF OPER: 1914 TO PRESENT. WASTE: CR CONTMN KILN BRICK. USED KILN BRICK WAS DISP IN A LDFL FROM 1955 TO 1979. SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012 SITE SCREENING 5/19/1989 SITE SCREENING DONE FIT PA REASSESSMENT COMPLETED 8/2/88 RECOMMENDED HIGH PRIORITY SSI UNDER CERCLA; DHS CONCURS WITH RECOMMENDATION SITE SCREENING 4/11/1995 NFA FOR DTSC. SITE SCREENING 6/6/2007 Site Screening approved by EPA. "OCA Start".

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: / /
Date Completed: 08/01/80
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: PRELIMINARY ASSESSMENT
Date Started: 10/01/84
Date Completed: 01/01/85
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 09/01/88
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Action Code: 001
Action: SITE INSPECTION
Date Started: / /
Date Completed: 12/01/90
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE REASSESSMENT
Date Started: 07/01/02
Date Completed: 06/30/03
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: SITE REASSESSMENT
Date Started: / /
Date Completed: 06/06/07
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

US AIRS (AFS):
Envid: 1000218306
Region Code: 09
County Code: CA065
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
D and B Number: Not reported
Facility Site Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Primary SIC Code: 3255
NAICS Code: 327124
Default Air Classification Code: MAJ
Facility Type of Ownership Code: POF
Air CMS Category Code: TVM
HPV Status: Not reported

US AIRS (AFS):
Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Program: MACT Standards (40 CFR Part 63)
Activity Date: 2008-03-05 00:00:00
Activity Status Date: 2008-04-03 17:10:01
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: MACT Standards (40 CFR Part 63)
Activity Date: 2008-03-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1984-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1985-01-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1986-03-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1987-05-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1987-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1988-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1989-11-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1990-11-19 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1991-12-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1993-11-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2012-02-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2012-07-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2012-07-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2013-03-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2013-10-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 1999-03-05 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2008-09-24 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2009-09-02 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2009-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2013-01-31 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2013-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2014-08-28 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-02-10 00:00:00
Activity Status Date: 2015-03-03 17:58:17
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:08:29
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:15:03
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1978-12-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1979-06-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1980-05-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1980-06-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1981-05-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1981-06-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 1982-06-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1983-03-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1983-12-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1985-01-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1986-03-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-01-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-05-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1988-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1989-11-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1990-11-19 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1991-12-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1992-12-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1993-11-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1995-11-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1997-08-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-02-24 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 2007-09-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-02-18 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-07-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-08-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-09-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-12-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-06-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-02-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-05-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-02-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-07-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-07-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-09-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 2012-12-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-03-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-04-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-06-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-10-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-10-09 00:00:00
Activity Status Date: 1998-10-09 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-08 00:00:00
Activity Status Date: 2008-07-08 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-15 00:00:00
Activity Status Date: 2008-07-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-06-26 00:00:00
Activity Status Date: 2009-06-26 00:00:00
Activity Group: Enforcement Action

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-09-15 00:00:00
Activity Status Date: 2011-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-09-15 00:00:00
Activity Status Date: 2013-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-02-06 00:00:00
Activity Status Date: 2014-02-06 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-09-18 00:00:00
Activity Status Date: 1998-09-18 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 2008-04-25 00:00:00
Activity Status Date: 2008-04-25 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-05-07 00:00:00
Activity Status Date: 2008-05-07 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-11-13 00:00:00
Activity Status Date: 2008-11-13 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-06-01 00:00:00
Activity Status Date: 2011-06-01 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-05-10 00:00:00
Activity Status Date: 2013-05-10 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-09-18 00:00:00
Activity Status Date: 2013-09-18 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2001-03-07 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2008-09-24 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2009-09-02 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2009-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2013-01-31 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2013-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2014-08-28 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-10-08 00:00:00
Activity Status Date: 2015-06-03 16:12:48
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-11-17 00:00:00
Activity Status Date: 2015-06-03 16:14:08
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-02-10 00:00:00
Activity Status Date: 2015-03-03 17:58:17
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-02-27 00:00:00
Activity Status Date: 2015-06-03 16:10:43
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:08:29
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:15:03
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 1997-08-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 1999-12-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2001-04-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2005-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2006-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-02-24 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-09-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-02-18 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-07-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-07-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-08-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-09-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-12-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-06-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-02-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 2011-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-05-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-02-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-07-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-07-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-09-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-12-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-03-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-04-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-06-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-10-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2000-04-15 00:00:00
Activity Status Date: 2000-04-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 2008-07-08 00:00:00
Activity Status Date: 2008-07-08 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-07-15 00:00:00
Activity Status Date: 2008-07-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-06-26 00:00:00
Activity Status Date: 2009-06-26 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-09-15 00:00:00
Activity Status Date: 2011-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-09-15 00:00:00
Activity Status Date: 2013-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-02-06 00:00:00
Activity Status Date: 2014-02-06 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2000-02-01 00:00:00
Activity Status Date: 2000-02-01 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-04-25 00:00:00
Activity Status Date: 2008-04-25 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-05-07 00:00:00
Activity Status Date: 2008-05-07 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-11-13 00:00:00
Activity Status Date: 2008-11-13 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2011-06-01 00:00:00
Activity Status Date:	2011-06-01 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-05-10 00:00:00
Activity Status Date:	2013-05-10 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-09-18 00:00:00
Activity Status Date:	2013-09-18 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved

A11 **RIVERSIDE CEMENT COMPANY - CRESTMORE PLANT** **TSCA** **1014200494**
Target **1500 RUBIDOUX BLVD.** **N/A**
Property **RIVERSIDE, CA 92509**

Site 11 of 13 in cluster A

Actual: 937 ft.

Click this hyperlink while viewing on your computer to access additional TSCA detail in the EDR Site Report.

A12 **RIVERSIDE CEMENT** **RGA LUST** **S114677342**
Target **1500 RUBIDOUX BOULEVARD** **N/A**
Property **RIVERSIDE, CA**

Site 12 of 13 in cluster A

Actual: 937 ft.

RGA LUST:

1998	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1997	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1996	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1995	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD

RIVERSIDE CEMENT (Continued) **S114677342**

1994	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1993	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1992	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD

A13 **RIVERSIDE CEMENT COMPANY - CRESTMORE** **ENVIROSTOR** **S103443287**
Target **1500 RUBIDOUX BLVD** **LUST** **N/A**
Property **RIVERSIDE, CA 92506** **WMUDS/SWAT**
LDS
Site 13 of 13 in cluster A **EMI**
HIST CORTESE
Actual: **NPDES**
937 ft. **WDS**

ENVIROSTOR:

Facility ID:	33140002
Status:	Refer: RWQCB
Status Date:	01/11/2011
Site Code:	401056
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	10
NPL:	NO
Regulatory Agencies:	US EPA
Lead Agency:	US EPA
Program Manager:	Rania Zabaneh
Supervisor:	Eileen Mananian
Division Branch:	Cleanup Cypress
Assembly:	60
Senate:	31
Special Program:	EPA - PASI
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.02802
Longitude:	-117.3867
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	Polychlorinated biphenyls (PCBs Chromium VI
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD063844443
Alias Type:	EPA Identification Number
Alias Name:	401056
Alias Type:	Project Code (Site Code)
Alias Name:	33140002
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	10/12/1983
Comments:	FACILITY IDENTIFIED ID FROM ERRIS
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	04/25/1983

RIVERSIDE CEMENT COMPANY - CRESTMORE (Continued) **S103443287**

Comments: FACILITY IDENTIFIED ID FROM REGION 9 EMS DATABASE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: PA/SI Reassessment
Completed Date: 05/18/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 04/11/1995
Comments: NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 05/19/1989
Comments: SITE SCREENING DONE FIT PA REASSESSMENT COMPLETED 8/2/88 RECOMMENDED HIGH PRIORITY SSI UNDER CERCLA; DHS CONCURS WITH RECOMMENDATION

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 06/01/1984
Comments: T/C W/ MALLORY S.MAY,GIFFORD HILL CO,214 -258-7175, 7/16/84 -1)SOURCE ACT: KLIN FIRED, CEMENT MFG 2)YR OF OPER: 1914 TO PRESENT. WASTE: CR CONTMN KILN BRICK. USED KILN BRICK WAS DISP IN A LDFL FROM 1955 TO 1979. SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 06/06/2007
Comments: Site Screening approved by EPA. "OCA Start".

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST:
Region: STATE
Global Id: T0606500166
Latitude: 34.0308386890794
Longitude: -117.388611886578
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 11/05/1991
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: SCB
Local Agency: RIVERSIDE COUNTY LOP

RIVERSIDE CEMENT COMPANY - CRESTMORE (Continued) **S103443287**

RB Case Number: 083301366T
LOC Case Number: 89210
File Location: Local Agency Warehouse
Potential Media Affect: Soil
Potential Contaminants of Concern: Heating Oil / Fuel Oil
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0606500166
Contact Type: Local Agency Caseworker
Contact Name: SHARON BOLTINGHOUSE
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: sbolting@rivcocha.org
Phone Number: 9519558980

Status History:
Global Id: T0606500166
Status: Completed - Case Closed
Status Date: 11/05/1991

Global Id: T0606500166
Status: Open - Case Begin Date
Status Date: 11/01/1987

Global Id: T0606500166
Status: Open - Remediation
Status Date: 03/01/1989

Global Id: T0606500166
Status: Open - Site Assessment
Status Date: 11/01/1987

Global Id: T0606500166
Status: Open - Site Assessment
Status Date: 02/29/1988

Regulatory Activities:
Global Id: T0606500166
Action Type: ENFORCEMENT
Date: 11/05/1991
Action: Closure/No Further Action Letter - #RCDEH1105

Global Id: T0606500166
Action Type: Other
Date: 11/01/1987
Action: Leak Reported

Global Id: T0606500166
Action Type: REMEDIATION
Date: 03/01/1989
Action: Excavation

Global Id: T0606500166

RIVERSIDE CEMENT COMPANY - CRESTMORE (Continued) **S103443287**

Action Type:	ENFORCEMENT
Date:	11/04/1991
Action:	File review - #RCDEH Upload Site File 10/15/2015

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083301366T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Bunker Fuel Oil
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0606500166
How Stopped Date:	Not reported
Enter Date:	12/6/1989
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	12/7/1989
Discover Date:	11/1/1987
Enforcement Date:	Not reported
Close Date:	11/5/1991
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	10/1/1989
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	12/6/1989
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.0271887
Longitude:	-117.3898002
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	PAH
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL

RIVERSIDE CEMENT COMPANY - CRESTMORE (Continued) **S103443287**

Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: RCC PROPOSES TO MIX THE CONTAMINATED SOIL WITH CEMENT AND USE IT FOR PAVING ON SITE, APPROVED BY RCEH 12/13/90.

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 89210
Employee: Boltinghous-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

WMUDS/SWAT:
Edit Date: Not reported
Complexity: Not reported
Primary Waste: DOMIND
Primary Waste Type: Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Base Meridian: Not reported
NPID: Not reported
Tonnage: 0
Regional Board ID: Not reported
Municipal Solid Waste: False
Superorder: False
Open To Public: False
Waste List: False
Agency Type: Private
Agency Name: RIVERSIDE CEMENT COMPANY
Agency Department: Not reported
Agency Address: PO BOX 832
Agency City,St,Zip: RIVERSIDE CA 92502
Agency Contact: Not reported
Agency Telephone: 9096833660
Land Owner Name: Not reported
Land Owner Address: Not reported
Land Owner City,St,Zip: Not reported
Land Owner Contact: Not reported
Land Owner Phone: Not reported
Region: 8
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Description: Not reported

RIVERSIDE CEMENT COMPANY - CRESTMORE (Continued) **S103443287**

Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	3241
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	True
Solid Waste Assessment Test Program:	False
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Not reported
Sub Chapter 15:	True
Regional Board Project Officer:	Not reported
Number of WMUDS at Facility:	0
Section Range:	Not reported
RCRA Facility:	No
Waste Discharge Requirements:	H
Self-Monitoring Rept. Frequency:	Quarterly Submittal
Waste Discharge System ID:	8 332000001
Solid Waste Information ID:	Not reported

LDS:

Global Id:	L10003541579
Latitude:	34.02892
Longitude:	-117.3865
Case Type:	Land Disposal Site
Status:	Completed - Case Closed
Status Date:	11/02/2009
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Caseworker:	KDP
Local Agency:	Not reported
RB Case Number:	8 332000001
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Not reported
EDR Link ID:	L10003541579
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

EMI:

Year:	1996
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3255
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10

RIVERSIDE CEMENT COMPANY - CRESTMORE (Continued) **S103443287**

Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	39
NOX - Oxides of Nitrogen Tons/Yr:	149
SOX - Oxides of Sulphur Tons/Yr:	66
Particulate Matter Tons/Yr:	54
Part. Matter 10 Micrometers & Smllr Tons/Yr:	50

Year:	2002
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	73
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2003
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	73
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2004
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.289508
Reactive Organic Gases Tons/Yr:	0.26
Carbon Monoxide Emissions Tons/Yr:	0.75097
NOX - Oxides of Nitrogen Tons/Yr:	72.6925
SOX - Oxides of Sulphur Tons/Yr:	1.208824
Particulate Matter Tons/Yr:	0.05006
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.05

RIVERSIDE CEMENT COMPANY - CRESTMORE (Continued) **S103443287**

Year:	2005
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.57899
Reactive Organic Gases Tons/Yr:	1.256253035
Carbon Monoxide Emissions Tons/Yr:	11.3
NOX - Oxides of Nitrogen Tons/Yr:	73.2
SOX - Oxides of Sulphur Tons/Yr:	4.86
Particulate Matter Tons/Yr:	62.3104
Part. Matter 10 Micrometers & Smllr Tons/Yr:	33.9260864

Year:	2006
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.049977653408348326
Reactive Organic Gases Tons/Yr:	.83
Carbon Monoxide Emissions Tons/Yr:	2.323
NOX - Oxides of Nitrogen Tons/Yr:	61.961
SOX - Oxides of Sulphur Tons/Yr:	2.599
Particulate Matter Tons/Yr:	106.956
Part. Matter 10 Micrometers & Smllr Tons/Yr:	97.99428

Year:	2007
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.043561845063478607
Reactive Organic Gases Tons/Yr:	.83
Carbon Monoxide Emissions Tons/Yr:	2.323
NOX - Oxides of Nitrogen Tons/Yr:	61.961
SOX - Oxides of Sulphur Tons/Yr:	2.599
Particulate Matter Tons/Yr:	106.956
Part. Matter 10 Micrometers & Smllr Tons/Yr:	97.99428

Year:	2008
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241

RIVERSIDE CEMENT COMPANY - CRESTMORE (Continued) **S103443287**

Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.7269285903408251728
Reactive Organic Gases Tons/Yr:	.326309126
Carbon Monoxide Emissions Tons/Yr:	.4
NOX - Oxides of Nitrogen Tons/Yr:	10.94
SOX - Oxides of Sulphur Tons/Yr:	2.52
Particulate Matter Tons/Yr:	17.768865875
Part. Matter 10 Micrometers & Smllr Tons/Yr:	16.365356605

Year:	2012
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.042662419163
Reactive Organic Gases Tons/Yr:	0.02969
Carbon Monoxide Emissions Tons/Yr:	0.11428
NOX - Oxides of Nitrogen Tons/Yr:	0.37817
SOX - Oxides of Sulphur Tons/Yr:	0.00194
Particulate Matter Tons/Yr:	4.11788
Part. Matter 10 Micrometers & Smllr Tons/Yr:	3.78922912

Year:	2013
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4.1434347314e-005
Reactive Organic Gases Tons/Yr:	2.8523e-005
Carbon Monoxide Emissions Tons/Yr:	7.3451e-005
NOX - Oxides of Nitrogen Tons/Yr:	0.00019883
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.003042273
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.001221835008

HIST CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	083301366T

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8

RIVERSIDE CEMENT COMPANY - CRESTMORE (Continued) **S103443287**

Regulatory Measure Id:	210701
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I002053
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	3/30/1992
STATUS CODE NAME:	Active
STATUS DATE:	4/22/2008
PLACE SIZE:	294
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Stewart Minter
FACILITY CONTACT TITLE:	Operations Manager
FACILITY CONTACT PHONE:	951-774-2519
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	stewart.minter@martinmarietta.com
OPERATOR NAME:	TXI Riverside Cement Company
OPERATOR ADDRESS:	PO Box 146
OPERATOR CITY:	Oro Grande
OPERATOR STATE:	California
OPERATOR ZIP:	92368
OPERATOR CONTACT NAME:	Kevin Grogan
OPERATOR CONTACT TITLE:	General Manager
OPERATOR CONTACT PHONE:	760-245-5321
OPERATOR CONTACT PHONE EXT:	5283
OPERATOR CONTACT EMAIL:	kevin.grogan@martinmarietta.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	951-201-5238
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported

RIVERSIDE CEMENT COMPANY - CRESTMORE (Continued) **S103443287**

CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Kevin Grogan
CERTIFIER TITLE:	General Manager
CERTIFICATION DATE:	26-JUN-15
PRIMARY SIC:	3241-Cement, Hydraulic
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	210701
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I002053
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/30/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	TXI Riverside Cement Company
Discharge Address:	PO Box 146
Discharge City:	Oro Grande
Discharge State:	California
Discharge Zip:	92368
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported

RIVERSIDE CEMENT COMPANY - CRESTMORE (Continued) **S103443287**

DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

WDS:

Facility ID:	Santa Ana River 33I002053
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	RIVERSIDE CEMENT COMPANY
Agency Address:	PO BOX 832
Agency City,St,Zip:	RIVERSIDE 92502
Agency Contact:	RICHARD BALL
Agency Telephone:	9096833660
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported

RIVERSIDE CEMENT COMPANY - CRESTMORE (Continued) **S103443287**

Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

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14 **CRESTMORE QUARRY** **MINES** **S117661370**
N/A

< 1/8 **, CA**
1 ft.

Relative:
Lower

Actual:
793 ft.

MINES:

Latitude:	34.026944
Longitude:	-117.381111
Lead Agency identification code:	33
Lead Agency name:	County of Riverside
Year of the operator supplied annual report:	1996
Type of report submitted by operator:	2
Number of acres disturbed by the mine:	0
Status of mining operation:	Not reported
Status of mine reclamation:	RECLAMATION NOT STARTED
Mine operator:	RIVERSIDE CEMENT COMPANY
Operator Address:	PO BOX 832
Operator City, State, Zip:	RIVERSIDE, CA 92502
Operator County:	Not reported
Mine owner:	RIVERSIDE CEMENT COMPANY
Owner Address:	PO BOX 4904
Owner City, State, Zip:	DIAMOND BAR, CA 91765
Owner County:	Not reported
Reclamation plan identification number:	Not reported
Primary product produced by the mine:	QUARTZ CRYSTAL
Other products produced by the mine:	Not reported
Type of mining utilized by mine:	QUARRY
Conditional use permit identification number:	SMP 180
Number of acres permitted for mining disturbance:	45
Total amount of funds posted by the mine for reclamation:	$0.00
Financial Assurance Cost Estimate for reclamation:	$0.00

15
NNW
< 1/8
0.006 mi.
30 ft.

RIVERSIDE CEMENT CO

RIVERSIDE (County), CA

US MINES **1016467340**
N/A

Relative:
Lower

Actual:
932 ft.

US MINES:

Mine ID:	0400010
SIC code(s):	324100 000000 000000 000000 000000 000000
Entity name:	CRESTMORE QUARRY
Company:	RIVERSIDE CEMENT CO
Status:	1
Status date:	20131001
Operation Class:	non-Coal Mining
Number of shops:	0
Number of plants:	0
Latitude:	34 02 02
Longitude:	117 23 25

Violations Details:

Violation Number:	8781694
Date Issued:	12/22/2014
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	12/23/2014
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	100.00
Paid Penalty:	100.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	100.00
Year:	2014

Violation Number:	8689544
Date Issued:	12/13/2012
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	12/13/2012
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	100.00
Paid Penalty:	100.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	100.00
Year:	2012

Violation Number:	8689527
Date Issued:	11/19/2012
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	01/28/2013
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	127.00

RIVERSIDE CEMENT CO (Continued) **1016467340**

Paid Penalty: 127.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 127.00
Year: 2012

Violation Number: 8689526
Date Issued: 11/19/2012
Mine Status: Active
Status Date: 10/01/2013
Action Type: 104(a)
Date Abated: 12/11/2012
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 100.00
Paid Penalty: 100.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 100.00
Year: 2012

Violation Number: 8689518
Date Issued: 11/15/2012
Mine Status: Active
Status Date: 10/01/2013
Action Type: 104(a)
Date Abated: 11/19/2012
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 100.00
Paid Penalty: 100.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 100.00
Year: 2012

Violation Number: 8689525
Date Issued: 11/15/2012
Mine Status: Active
Status Date: 10/01/2013
Action Type: 104(a)
Date Abated: 11/19/2012
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 100.00
Paid Penalty: 100.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 100.00
Year: 2012

Violation Number: 8689524
Date Issued: 11/15/2012
Mine Status: Active
Status Date: 10/01/2013
Action Type: 104(a)
Date Abated: 11/19/2012

RIVERSIDE CEMENT CO (Continued) **1016467340**

Citation/Order:	Citation
Sig and Sub Designation:	Y
Proposed Penalty:	634.00
Paid Penalty:	634.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	634.00
Year:	2012

Violation Number:	8689523
Date Issued:	11/15/2012
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	11/19/2012
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	100.00
Paid Penalty:	100.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	100.00
Year:	2012

Violation Number:	8689522
Date Issued:	11/15/2012
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	11/19/2012
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	100.00
Paid Penalty:	100.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	100.00
Year:	2012

Violation Number:	8689521
Date Issued:	11/15/2012
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	11/15/2012
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	127.00
Paid Penalty:	127.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	127.00
Year:	2012

Violation Number:	8689520
Date Issued:	11/15/2012
Mine Status:	Active

RIVERSIDE CEMENT CO (Continued) **1016467340**

Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	11/19/2012
Citation/Order:	Citation
Sig and Sub Designation:	Y
Proposed Penalty:	190.00
Paid Penalty:	190.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	190.00
Year:	2012

Violation Number:	8689517
Date Issued:	11/15/2012
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	11/19/2012
Citation/Order:	Citation
Sig and Sub Designation:	Y
Proposed Penalty:	190.00
Paid Penalty:	190.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	190.00
Year:	2012

Violation Number:	8689519
Date Issued:	11/15/2012
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	11/15/2012
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	100.00
Paid Penalty:	100.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	100.00
Year:	2012

Violation Number:	6369316
Date Issued:	11/04/2005
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	11/08/2005
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	60.00
Paid Penalty:	60.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60.00
Year:	2005

RIVERSIDE CEMENT CO (Continued) **1016467340**

Violation Number:	6369315
Date Issued:	11/02/2005
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	11/02/2005
Citation/Order:	Citation
Sig and Sub Designation:	Y
Proposed Penalty:	228.00
Paid Penalty:	228.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	228.00
Year:	2005

Violation Number:	6369313
Date Issued:	11/01/2005
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	11/01/2005
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	60.00
Paid Penalty:	60.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60.00
Year:	2005

Violation Number:	6369314
Date Issued:	11/01/2005
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	11/02/2005
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	60.00
Paid Penalty:	60.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	60.00
Year:	2005

Violation Number:	6369312
Date Issued:	10/27/2005
Mine Status:	Active
Status Date:	10/01/2013
Action Type:	104(a)
Date Abated:	10/31/2005
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	60.00
Paid Penalty:	60.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed

RIVERSIDE CEMENT CO (Continued) **1016467340**

Assessment Amount: 60.00
Year: 2005

Violation Number: 6369310
Date Issued: 10/26/2005
Mine Status: Active
Status Date: 10/01/2013
Action Type: 104(a)
Date Abated: 10/27/2005
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 60.00
Paid Penalty: 60.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 60.00
Year: 2005

Violation Number: 6369311
Date Issued: 10/26/2005
Mine Status: Active
Status Date: 10/01/2013
Action Type: 104(a)
Date Abated: 10/26/2005
Citation/Order: Citation
Sig and Sub Designation: Y
Proposed Penalty: 165.00
Paid Penalty: 165.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 165.00
Year: 2005

RIVERSIDE CEMENT CO (Continued) **1016467340**

Click this hyperlink while viewing on your computer to access
200 additional US_MINES: record(s) in the EDR Site Report.

B16 **FERRELLGAS LP DBA BLUE RHINO OF LOS ANGELES** **RCRA-SQG** **1008372009**
South **1750 AGUA MANSA RD** **CAR000161638**
< 1/8 **RUBIDOUX, CA 92509**
0.025 mi.
134 ft. **Site 1 of 6 in cluster B**

Relative:
Lower

Actual:
892 ft.

RCRA-SQG:

Date form received by agency:	01/03/2008
Facility name:	FERRELLGAS LP DBA BLUE RHINO OF LOS ANGELES
Facility address:	1750 AGUA MANSA RD RUBIDOUX, CA 92509 2402
EPA ID:	CAR000161638
Contact:	STEVE R HOLMES
Contact address:	1750 AGUA MANSA RD RUBIDOUX, CA 92509 2402
Contact country:	US
Contact telephone:	951-321-4720
Contact email:	SHOLMES@BLUERHINO.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	FERRELLGAS LP DBA BLUE RHINO
Owner/operator address:	470 W HANES MILL RD STE 200 WINSTON SALEM, NC 27105
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	05/01/2005
Owner/Op end date:	Not reported

Owner/operator name:	FERRELLGAS LP DBA BLUE RHINO
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	05/01/2005
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No

FERRELLGAS LP DBA BLUE RHINO OF LOS ANGELES (Continued) **1008372009**

On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Historical Generators:
Date form received by agency: 04/11/2005
Site name: PLATINUM PROPANE
Classification: Large Quantity Generator

. Waste code: D007
. Waste name: CHROMIUM

Violation Status: No violations found

B17 **RA NELSON MRF TRANSFER STATION** **SWF/LF** **S108199310**
South **1830 AGUA MANSA RD** **SWRCY** **N/A**
< 1/8 **RIVERSIDE, CA 92509** **NPDES**
0.053 mi. **PROC**
278 ft. **Site 2 of 6 in cluster B**

Relative:
Lower

Actual:
886 ft.

SWF/LF (SWIS):
Region: STATE
Facility ID: 33-AA-0319
Lat/Long: 34.02261 / -117.38003
Owner Name: Riverside County Waste Management Depart
Owner Telephone: 9514863200
Owner Address: Not reported
Owner Address2: 14310 Frederick Street
Owner City,St,Zip: Moreno Valley, CA 92553
Operational Status: Active
Operator: Agua Mansa MRF, LLC
Operator Phone: 9517860655
Operator Address: Not reported
Operator Address2: 9890 Cherry Avenue
Operator City,St,Zip: Fontana, CA 92335
Permit Date: 09/05/2013
Permit Status: Notification
Permitted Acreage: 1
Activity: Composting Operation (Research)
Regulation Status: Notification
Landuse Name: Residential,Golf Course,Commercial
GIS Source: Map
Category: Composting
Unit Number: 02
Inspection Frequency: Quarterly
Accepted Waste: Food Wastes,Green Materials
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

SWIS Num: 33-AA-0319
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: 5000
Actual Throughput with Units: Cu Yards/day
Permitted Capacity with Units: 2000
Remaining Capacity: Not reported
Remaining Capacity with Units: Tons/year
Lat/Long: 34.02261 / -117.38003

Region: STATE
Facility ID: 33-AA-0258
Lat/Long: 34.0210599 / -117.3853
Owner Name: County Of Riverside Waste Mgmt Dept
Owner Telephone: 9514863200
Owner Address: Not reported
Owner Address2: 14310 Frederick Street
Owner City,St,Zip: Moreno Valley, CA 92553
Operational Status: Active
Operator: Agua Mansa MRF, LLC
Operator Phone: 9517860655
Operator Address: Not reported
Operator Address2: 9890 Cherry Avenue
Operator City,St,Zip: Fontana, CA 92335
Permit Date: 05/15/2012
Permit Status: Permitted
Permitted Acreage: Not reported
Activity: Chipping and Grinding Activity Fac./ Op.
Regulation Status: Permitted
Landuse Name: Suburban,Open Space - Nonirrigated,Industrial
GIS Source: Map
Category: Composting
Unit Number: 03
Inspection Frequency: Monthly
Accepted Waste: Not reported
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported
SWIS Num: 33-AA-0258
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: Not reported
Actual Throughput with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity: Not reported
Remaining Capacity with Units: Not reported
Lat/Long: 34.0210599 / -117.3853

Region: STATE
Facility ID: 33-AA-0258
Lat/Long: 34.0210599 / -117.3853
Owner Name: County Of Riverside Waste Mgmt Dept
Owner Telephone: 9514863200
Owner Address: Not reported
Owner Address2: 14310 Frederick Street
Owner City,St,Zip: Moreno Valley, CA 92553
Operational Status: Active

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Operator:	Agua Mansa MRF, LLC
Operator Phone:	9517860655
Operator Address:	Not reported
Operator Address2:	9890 Cherry Avenue
Operator City,St,Zip:	Fontana, CA 92335
Permit Date:	05/15/2012
Permit Status:	Permitted
Permitted Acreage:	Not reported
Activity:	Composting Facility (Mixed)
Regulation Status:	Permitted
Landuse Name:	Suburban,Open Space - Nonirrigated,Industrial
GIS Source:	Map
Category:	Composting
Unit Number:	08
Inspection Frequency:	Monthly
Accepted Waste:	Not reported
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	Not reported
SWIS Num:	33-AA-0258
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported
Lat/Long:	34.0210599 / -117.3853

Region:	STATE
Facility ID:	33-AA-0258
Lat/Long:	34.0210599 / -117.3853
Owner Name:	County Of Riverside Waste Mgmt Dept
Owner Telephone:	9514863200
Owner Address:	Not reported
Owner Address2:	14310 Frederick Street
Owner City,St,Zip:	Moreno Valley, CA 92553
Operational Status:	Active
Operator:	Agua Mansa MRF, LLC
Operator Phone:	9517860655
Operator Address:	Not reported
Operator Address2:	9890 Cherry Avenue
Operator City,St,Zip:	Fontana, CA 92335
Permit Date:	05/15/2012
Permit Status:	Permitted
Permitted Acreage:	22
Activity:	Large Volume Transfer/Proc Facility
Regulation Status:	Permitted
Landuse Name:	Suburban,Open Space - Nonirrigated,Industrial
GIS Source:	Map
Category:	Transfer/Processing
Unit Number:	01
Inspection Frequency:	Monthly
Accepted Waste:	Construction/demolition,Green Materials,Inert,Metals,Mixed municipal,Wood waste
Closure Date:	Not reported
Closure Type:	Not reported

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Disposal Acreage: Not reported
SWIS Num: 33-AA-0258
Waste Discharge Requirement Num: Not reported
Program Type: MRF
Permitted Throughput with Units: 4000
Actual Throughput with Units: Tons/day
Permitted Capacity with Units: 4000
Remaining Capacity: Not reported
Remaining Capacity with Units: Tons/day
Lat/Long: 34.0210599 / -117.3853

Region: STATE
Facility ID: 33-AA-0258
Lat/Long: 34.0210599 / -117.3853
Owner Name: County Of Riverside Waste Mgmt Dept
Owner Telephone: 9514863200
Owner Address: Not reported
Owner Address2: 14310 Frederick Street
Owner City,St,Zip: Moreno Valley, CA 92553
Operational Status: Active
Operator: Agua Mansa MRF, LLC
Operator Phone: 9517860655
Operator Address: Not reported
Operator Address2: 9890 Cherry Avenue
Operator City,St,Zip: Fontana, CA 92335
Permit Date: 05/15/2012
Permit Status: Permitted
Permitted Acreage: Not reported
Activity: Small Vol CDI Debris Proc. Operation
Regulation Status: Permitted
Landuse Name: Suburban,Open Space - Nonirrigated,Industrial
GIS Source: Map
Category: Transfer/Processing
Unit Number: 04
Inspection Frequency: Monthly
Accepted Waste: Construction/demolition
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported
SWIS Num: 33-AA-0258
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: Not reported
Actual Throughput with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity: Not reported
Remaining Capacity with Units: Not reported
Lat/Long: 34.0210599 / -117.3853

Region: STATE
Facility ID: 33-AA-0258
Lat/Long: 34.0210599 / -117.3853
Owner Name: County Of Riverside Waste Mgmt Dept
Owner Telephone: 9514863200
Owner Address: Not reported
Owner Address2: 14310 Frederick Street
Owner City,St,Zip: Moreno Valley, CA 92553

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Operational Status:	Active
Operator:	Agua Mansa MRF, LLC
Operator Phone:	9517860655
Operator Address:	Not reported
Operator Address2:	9890 Cherry Avenue
Operator City,St,Zip:	Fontana, CA 92335
Permit Date:	05/15/2012
Permit Status:	Permitted
Permitted Acreage:	Not reported
Activity:	Waste Tire Location
Regulation Status:	Permitted
Landuse Name:	Suburban,Open Space - Nonirrigated,Industrial
GIS Source:	Map
Category:	Waste Tire Site
Unit Number:	05
Inspection Frequency:	None
Accepted Waste:	Not reported
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	Not reported
SWIS Num:	33-AA-0258
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported
Lat/Long:	34.0210599 / -117.3853

SWRCY:

Reg Id:	23974
Cert Id:	RC7808
Mailing Address:	1830 Agua Mansa Rd
Mailing City:	Riverside
Mailing State:	CA
Mailing Zip Code:	92509
Website:	Not reported
Email:	debbie@burrtec.com
Phone Number:	(951) 786-0544
Grand Father:	N
Rural:	N
Operation Begin Date:	01/16/1998
Aluminium:	Y
Glass:	Y
Plastic:	Y
Bimetal:	Y
Agency:	N/A
Monday Hours Of Operation:	8:00 am - 4:00 pm
Tuesday Hours Of Operation:	8:00 am - 4:00 pm
Wednesday Hours Of Operation:	8:00 am - 4:00 pm
Thursday Hours Of Operation:	8:00 am - 4:00 pm
Friday Hours Of Operation:	8:00 am - 4:00 pm
Saturday Hours Of Operation:	8:00 am - 2:00 pm
Sunday Hours Of Operation:	8:00 am - 2:00 pm
Organization ID:	19249
Organization Name:	Burrtec Waste Industries Inc

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	359176
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I021996
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	01/14/2009
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Agua Mansa MRF LLC
Discharge Address:	9890 Cherry Avenue
Discharge City:	Fontana
Discharge State:	California
Discharge Zip:	92335
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	359176
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I021996
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	12/30/2008
PROCESSED DATE:	1/14/2009
STATUS CODE NAME:	Active
STATUS DATE:	1/14/2009
PLACE SIZE:	22.03
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Nick Burciaga
FACILITY CONTACT TITLE:	Division Manager
FACILITY CONTACT PHONE:	951-786-0655
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	nburciaga@burrtec.com
OPERATOR NAME:	Agua Mansa MRF LLC
OPERATOR ADDRESS:	9890 Cherry Avenue
OPERATOR CITY:	Fontana
OPERATOR STATE:	California
OPERATOR ZIP:	92335
OPERATOR CONTACT NAME:	Gary Koontz
OPERATOR CONTACT TITLE:	Facility Project Manager

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

OPERATOR CONTACT PHONE:	909-429-4200
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	gkoontz@burrtec.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	909-714-8158
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Gary Koontz
CERTIFIER TITLE:	Facility Project Manager
CERTIFICATION DATE:	04-MAR-15
PRIMARY SIC:	4212-Local Trucking Without Storage
SECONDARY SIC:	5093-Scrap and Waste Materials
TERTIARY SIC:	Not reported

PROC:

Reg Id:	26414
Cert Id:	PR0399
Organization Id:	26414
Organization Name:	Agua Mansa MRF LLC
Mailing Address:	1830 Agua Mansa Rd
Mailing City:	Riverside
Mailing State:	CA
Mailing Zip Code:	92509
Website:	Not reported
Email:	Not reported
Phone Number:	(951) 786-0544
Grand Father:	N/A
Rural:	N/A
Operation Begin Date:	03/01/2005
Aluminium:	Not reported
Glass:	Not reported
Plastic:	Not reported

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Bimetal:	Not reported
Agency:	N/A
Monday Hours Of Operation:	8:00 am - 4:00 pm
Tuesday Hours Of Operation:	8:00 am - 4:00 pm
Wednesday Hours Of Operation:	8:00 am - 4:00 pm
Thursday Hours Of Operation:	8:00 am - 4:00 pm
Friday Hours Of Operation:	8:00 am - 4:00 pm
Saturday Hours Of Operation:	8:00 am - 2:00 pm
Sunday Hours Of Operation:	8:00 am - 2:00 pm

B18 **BURRTEC WASTE INDUSTRIES, INC.** **RCRA-LQG 1014386692**
South **1830 AGUA MANSA RD** **FINDS CAL000162179**
< 1/8 **RIVERSIDE, CA 92509** **ECHO**
0.053 mi.
278 ft. **Site 3 of 6 in cluster B**

Relative:
Lower

Actual:
886 ft.

RCRA-LQG:

Date form received by agency:	08/30/2010
Facility name:	AGUA MANSA MRF, LLC
Facility address:	1830 AGUA MANSA ROAD RIVERSIDE, CA 92509
EPA ID:	CAL000162179
Mailing address:	AGUA MANSA ROAD RIVERSIDE, CA 92509
Contact:	RANDY R MILLS
Contact address:	AGUA MANSA ROAD RIVERSIDE, CA 92509
Contact country:	US
Contact telephone:	(951) 786-0655
Contact email:	RANDY@BURRTEC.COM
EPA Region:	09
Land type:	County
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	RIVERSIDE COUNTY WASTE
Owner/operator address:	FREDRICK STREET MORENO VALLEY, CA 92553
Owner/operator country:	Not reported
Owner/operator telephone:	(951) 486-3200
Legal status:	County
Owner/Operator Type:	Owner
Owner/Op start date:	01/19/1997
Owner/Op end date:	Not reported

BURRTEC WASTE INDUSTRIES, INC. (Continued) **1014386692**

Owner/operator name: BURRTEC WASTE INDUSTRIES, INC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 11/19/1997
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 141
. Waste name: 141

. Waste code: 181
. Waste name: 181

. Waste code: 232
. Waste name: 232

. Waste code: 331
. Waste name: 331

. Waste code: 343
. Waste name: 343

. Waste code: 352
. Waste name: 352

. Waste code: 551
. Waste name: 551

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: P108
. Waste name: STRYCHNIDIN-10-ONE, & SALTS (OR) STRYCHNINE, & SALTS

BURRTEC WASTE INDUSTRIES, INC. (Continued) **1014386692**

. Waste code: U249
. Waste name: ZINC PHOSPHIDE ZN3P2, WHEN PRESENT AT CONCENTRATIONS OF 10% OR LESS

. Waste code: U279
. Waste name: CARBARYL (OR) 1-NAPHTHALENOL, METHYLCARBAMATE

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 08/23/2010
Date achieved compliance: 08/23/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/23/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 08/22/2008
Date achieved compliance: 09/04/2008
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/22/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 08/23/2010
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: State Statute or Regulation
Date achieved compliance: 08/23/2010
Evaluation lead agency: State

Evaluation date: 08/22/2008
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: State Statute or Regulation
Date achieved compliance: 09/04/2008
Evaluation lead agency: State

FINDS:

Registry ID: 110055707622

Environmental Interest/Information System
STATE MASTER

BURRTEC WASTE INDUSTRIES, INC. (Continued) **1014386692**

ECHO:

Envid:	1014386692
Registry ID:	110055707622
FIPS Code:	33
EPA Region:	09
Indian Country Flag:	Not reported
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.02194
Longitude:	-117.38162
Map Icon:	NONE-UNK-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	CENTER OF A FACILITY OR STATION
Accuracy Meters:	30
Derived Tribes:	San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.3 mile(s), San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.4 mile(s)
Derived Huc:	18070203
Derived WBD:	Not reported
Derived STCT FPS:	06065
Derived Zip:	92509
Derived CD113:	41
Derived CB2010:	060650401011035
Percent Minority:	80.084
Pop Den:	2321.99
Major Flag:	Not reported
Active Flag:	Not reported
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	Not reported
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	Not reported
Programs in SNC:	0
Curr Compliance Status:	Not reported
Curr SNC Flag:	N
3yr Compliance Status:	Not reported
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	N
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported

BURRTEC WASTE INDUSTRIES, INC. (Continued) **1014386692**

CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	Not reported
RCRA Permit Types:	Not reported
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	Not reported
RCRA Curr Compliance Status:	Not reported
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	Not reported
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported

BURRTEC WASTE INDUSTRIES, INC. (Continued) **1014386692**

TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110055707622
Facility SIC Codes:	Not reported
Facility NAICS Codes:	Not reported
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

B19 **HIGH TECH ARCHITECTURAL PRODUCTS** **SWF/LF S112977742**
South **1830 AGUA MANSA RD** **HAZNET N/A**
< 1/8 **RIVERSIDE, CA 92509**
0.053 mi.
278 ft. **Site 4 of 6 in cluster B**

Relative:
Lower

Actual:
886 ft.

LOS ANGELES CO. LF:

Site ID:	2759
Alt. Address:	N/A
Site Contact:	Not reported
Site Contact Phone:	(951) 786-0655
Site Email:	Not reported
Site Website:	N/A
Site Type:	Out-of-County Facility
Site SWIS Number:	33-AA-0258
Beginning Operation Date:	N/A
Ending Operation Date:	N/A
Local Enforcement Agency:	County of Riverside Community Health Agency
Maximun Depth Fill(Ft):	Not reported
Permitted Capacity:	4000
Present Use:	Large Volume Transfer/Proc Facility
Remaining Capacity(Million):	N/A
Status:	Active
Waste Accepted:	Construction & Demolition;Green Materials;Household Trash;Industrial Non-Hazardous;
Hours of Operation:	Monday - Sunday 6 am - 8 pm
Disposal Area (Acre):	Not reported

Detail As Of 01/2014:

Operator Name:	Unknown
Operator Address:	Not reported
Operator City/State/Zip:	Not reported
Operator Contact:	Not reported
Operator Telephone:	Not reported
Operator Email:	Not reported
Owner Name:	Unknown
Owner Address:	Not reported
Owner City/State/Zip:	Not reported
Owner Contact:	Not reported

HIGH TECH ARCHITECTURAL PRODUCTS (Continued) **S112977742**

Owner Telephone: Not reported
Owner Email: Not reported

HAZNET:

envid:	S112977742
Year:	2009
GEPAID:	CAC002642108
Contact:	HAROLD ELDRIDGE
Telephone:	9517857592
Mailing Name:	Not reported
Mailing Address:	2950 JEFFERSON ST STE A
Mailing City,St,Zip:	RIVERSIDE, CA 925048320
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.004
Cat Decode:	Off-specification, aged or surplus organics
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside

envid:	S112977742
Year:	2009
GEPAID:	CAC002642108
Contact:	HAROLD ELDRIDGE
Telephone:	9517857592
Mailing Name:	Not reported
Mailing Address:	2950 JEFFERSON ST STE A
Mailing City,St,Zip:	RIVERSIDE, CA 925048320
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.0108
Cat Decode:	Unspecified solvent mixture
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside

envid:	S112977742
Year:	2009
GEPAID:	CAC002642108
Contact:	HAROLD ELDRIDGE
Telephone:	9517857592
Mailing Name:	Not reported
Mailing Address:	2950 JEFFERSON ST STE A
Mailing City,St,Zip:	RIVERSIDE, CA 925048320
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.1054

HIGH TECH ARCHITECTURAL PRODUCTS (Continued) **S112977742**

Cat Decode: Unspecified organic liquid mixture
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Riverside

B20 **BURRTEC WASTE INDUSTRIES-AGUA MANSA** **UST** **U003948804**
South **1850 AGUA MANSA RD** **N/A**
< 1/8 **JURUPA VALLEY, CA 92509**
0.058 mi.
308 ft. **Site 5 of 6 in cluster B**

Relative:
Lower

Actual:
884 ft.

UST:
Facility ID: 123
Permitting Agency: RIVERSIDE COUNTY
Latitude: 34.02065
Longitude: -117.3858

RIVERSIDE CO. UST:
Region: RIVERSIDE
Total Tanks: 1

B21 **BURRTEC WASTE INDUSTRIES INC** **RCRA-SQG** **1001967639**
South **1850 ASUA MANSA RD** **FINDS** **CAR000071431**
< 1/8 **RIVERSIDE, CA 92509** **HAZNET**
0.058 mi. **ECHO**
308 ft. **Site 6 of 6 in cluster B**

Relative:
Lower

Actual:
884 ft.

RCRA-SQG:
Date form received by agency: 04/20/2000
Facility name: BURRTEC WASTE INDUSTRIES INC
Facility address: 1850 ASUA MANSA RD
RIVERSIDE, CA 92509
EPA ID: CAR000071431
Contact: BILL EDEN
Contact address: 1850 ASUA MANSA RD
RIVERSIDE, CA 92509
Contact country: US
Contact telephone: (909) 786-0639
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: EDCO DISPOSAL
Owner/operator address: 1850 ASUA MANSA RD
RIVERSIDE, CA 92509
Owner/operator country: Not reported
Owner/operator telephone: (909) 786-0639
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported

BURRTEC WASTE INDUSTRIES INC (Continued) **1001967639**

Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

FINDS:

Registry ID: 110002935904

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

HAZNET:
envid: 1001967639
Year: 2014
GEPAID: CAR000071431
Contact: DEBBIE HANSEN
Telephone: 9094294200
Mailing Name: Not reported
Mailing Address: 9890 CHERRY AVE
Mailing City,St,Zip: FONTANA, CA 923350000
Gen County: Riverside

BURRTEC WASTE INDUSTRIES INC (Continued) **1001967639**

TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Other inorganic solid waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 3.2678
Cat Decode: Other inorganic solid waste
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Riverside

envid: 1001967639
Year: 2014
GEPAID: CAR000071431
Contact: DEBBIE HANSEN
Telephone: 9094294200
Mailing Name: Not reported
Mailing Address: 9890 CHERRY AVE
Mailing City,St,Zip: FONTANA, CA 923350000
Gen County: Riverside
TSD EPA ID: CAT000613927
TSD County: San Bernardino
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.336
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Riverside

envid: 1001967639
Year: 2014
GEPAID: CAR000071431
Contact: DEBBIE HANSEN
Telephone: 9094294200
Mailing Name: Not reported
Mailing Address: 9890 CHERRY AVE
Mailing City,St,Zip: FONTANA, CA 923350000
Gen County: Riverside
TSD EPA ID: CAD028409019
TSD County: Los Angeles
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons: 5.46
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County: Riverside

envid: 1001967639
Year: 2014
GEPAID: CAR000071431
Contact: DEBBIE HANSEN
Telephone: 9094294200
Mailing Name: Not reported
Mailing Address: 9890 CHERRY AVE
Mailing City,St,Zip: FONTANA, CA 923350000
Gen County: Riverside

BURRTEC WASTE INDUSTRIES INC (Continued) **1001967639**

TSD EPA ID: CAT000613927
TSD County: San Bernardino
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Not reported
Tons: 0.084
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Not reported
Facility County: Riverside

envid: 1001967639
Year: 2013
GEPAID: CAR000071431
Contact: DEBBIE HANSEN
Telephone: 9094294200
Mailing Name: Not reported
Mailing Address: 9890 CHERRY AVE
Mailing City,St,Zip: FONTANA, CA 923350000
Gen County: Riverside
TSD EPA ID: CAD028409019
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Not reported
Tons: 5.88
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Not reported

Click this hyperlink while viewing on your computer to access
59 additional CA_HAZNET: record(s) in the EDR Site Report.

ECHO:
Envid: 1001967639
Registry ID: 110002935904
FIPS Code: 06065
EPA Region: 09
Indian Country Flag: N
Federal Flag: Not reported
US Mexico Border Flag: N
Chesapeake Bay Flag: Not reported
NAA Flag: Y
Latitude: 34.02233
Longitude: -117.38315
Map Icon: RCRA-IC-MN-N.png
Collection Method: ADDRESS MATCHING-HOUSE NUMBER
Reference Point: ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters: 50
Derived Tribes: San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.4 mile(s)
Derived Huc: 18070203
Derived WBD: 180702030804
Derived STCT FPS: 06065
Derived Zip: 92509
Derived CD113: 41
Derived CB2010: 060650401011035
Percent Minority: 80.329
Pop Den: 2358.87

BURRTEC WASTE INDUSTRIES INC (Continued) **1001967639**

Major Flag:	Not reported
Active Flag:	Y
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	_____
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N

BURRTEC WASTE INDUSTRIES INC (Continued) **1001967639**

CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAR000071431
RCRA Permit Types:	SQG
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	_____
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002935904
Facility SIC Codes:	Not reported
Facility NAICS Codes:	Not reported
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

C22
SW
< 1/8
0.059 mi.
311 ft.

1700 CONTAINER CIR
RIVERSIDE, CA 92509

Site 1 of 4 in cluster C

Relative:
Lower

Actual:
913 ft.

EDR Hist Auto **1015265404**
N/A

EDR Historical Auto Stations:

Name:	ELEGANCE AUTO BODY & PAINT
Year:	2010
Address:	1700 CONTAINER CIR

C23
SW
< 1/8
0.082 mi.
435 ft.

1796 CONTAINER CIR
RIVERSIDE, CA 92509

Site 2 of 4 in cluster C

Relative:
Lower

Actual:
906 ft.

EDR Hist Auto **1015276544**
N/A

EDR Historical Auto Stations:

Name:	SELECT AUTO
Year:	2005
Address:	1796 CONTAINER CIR

C24
SW
< 1/8
0.083 mi.
436 ft.

1775 CONTAINER CIR
RIVERSIDE, CA 92509

Site 3 of 4 in cluster C

Relative:
Lower

Actual:
920 ft.

EDR Hist Auto **1015275012**
N/A

EDR Historical Auto Stations:

Name:	INTERNATIONAL AUTO BODY
Year:	2007
Address:	1775 CONTAINER CIR
Name:	INTERNATIONAL AUTO BODY
Year:	2008
Address:	1775 CONTAINER CIR
Name:	INTERNATIONAL AUTO BODY
Year:	2009
Address:	1775 CONTAINER CIR
Name:	CHAIRAS AUTO BODY & PAINT
Year:	2010
Address:	1775 CONTAINER CIR
Name:	CHAIRAS AUTO BODY & PAINT
Year:	2011
Address:	1775 CONTAINER CIR

C25
SW
< 1/8
0.094 mi.
498 ft.

1821 CONTAINER CIR
RIVERSIDE, CA 92501

Site 4 of 4 in cluster C

EDR Hist Auto **1015281699**
N/A

Relative:
Lower

Actual:
918 ft.

EDR Historical Auto Stations:

Name:	ELEGANCE AUTO BODY & PAINT
Year:	2011
Address:	1821 CONTAINER CIR

D26
NW
< 1/8
0.097 mi.
511 ft.

ADVANCE COLLISION
12073 CEDAR AVE
BLOOMINGTON, CA 92316

Site 1 of 3 in cluster D

RCRA-SQG **1000151445**
FINDS **CAD982486623**
HAZNET
ECHO

Relative:
Higher

Actual:
941 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	ADVANCE COLLISION
Facility address:	12073 CEDAR AVE BLOOMINGTON, CA 92316
EPA ID:	CAD982486623
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	MORGAN ANDREW T
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

ADVANCE COLLISION (Continued) **1000151445**

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 04/23/1990
Site name: ADVANCE COLLISION
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 10/06/1992
Date achieved compliance: 10/06/1997
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 10/06/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/06/1997
Evaluation lead agency: State Contractor/Grantee

FINDS:

Registry ID: 110002827790

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ADVANCE COLLISION (Continued) **1000151445**

HAZNET:

envid:	1000151445
Year:	1995
GEPAID:	CAD982486623
Contact:	Not reported
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	12073 CEDAR AVE
Mailing City,St,Zip:	BLOOMINGTON, CA 923160000
Gen County:	Not reported
TSD EPA ID:	CAT000613893
TSD County:	Not reported
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Transfer Station
Tons:	.0580
Cat Decode:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Method Decode:	Transfer Station
Facility County:	San Bernardino

envid:	1000151445
Year:	1994
GEPAID:	CAD982486623
Contact:	Not reported
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	12073 CEDAR AVE
Mailing City,St,Zip:	BLOOMINGTON, CA 923160000
Gen County:	Not reported
TSD EPA ID:	CAD008252405
TSD County:	Not reported
Waste Category:	Paint sludge
Disposal Method:	Treatment, Incineration
Tons:	.2750
Cat Decode:	Paint sludge
Method Decode:	Treatment, Incineration
Facility County:	San Bernardino

envid:	1000151445
Year:	1994
GEPAID:	CAD982486623
Contact:	Not reported
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	12073 CEDAR AVE
Mailing City,St,Zip:	BLOOMINGTON, CA 923160000
Gen County:	Not reported
TSD EPA ID:	CAT000613893
TSD County:	Not reported
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Transfer Station
Tons:	.0870
Cat Decode:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Method Decode:	Transfer Station
Facility County:	San Bernardino

envid:	1000151445
Year:	1994

ADVANCE COLLISION (Continued) **1000151445**

GEPAID: CAD982486623
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 12073 CEDAR AVE
Mailing City,St,Zip: BLOOMINGTON, CA 923160000
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Recycler
Tons: .5504
Cat Decode: Unspecified solvent mixture
Method Decode: Recycler
Facility County: San Bernardino

ECHO:
Envid: 1000151445
Registry ID: 110002827790
FIPS Code: 06071
EPA Region: 09
Indian Country Flag: N
Federal Flag: Not reported
US Mexico Border Flag: N
Chesapeake Bay Flag: Not reported
NAA Flag: Y
Latitude: 34.03413
Longitude: -117.39311
Map Icon: RCRA-IC-MN-N.png
Collection Method: ADDRESS MATCHING-HOUSE NUMBER
Reference Point: CENTER OF A FACILITY OR STATION
Accuracy Meters: 30
Derived Tribes: San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.2 mile(s), San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.3 mile(s)
Derived Huc: 18070203
Derived WBD: Not reported
Derived STCT FPS: 06071
Derived Zip: 92316
Derived CD113: 35
Derived CB2010: 060710040032059
Percent Minority: 84.813
Pop Den: 2113.52
Major Flag: Not reported
Active Flag: Y
MYRTK Universe: NNN
Inspection Count: 0
Date Last Inspection: 10/06/1992
Days Last Inspection: 8384
Informal Count: 0
Date Last Informal Action: Not reported
Formal Action Count: 0
Date Last Formal Action: Not reported
Total Penalties: 0
Penalty Count: 0

ADVANCE COLLISION (Continued) **1000151445**

Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	_____
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAD982486623
RCRA Permit Types:	SQG
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	8384
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported

ADVANCE COLLISION (Continued) **1000151445**

RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002827790
Facility SIC Codes:	Not reported
Facility NAICS Codes:	Not reported
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	10/06/1992
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

D27 **EDR Hist Auto** **1015182061**
NW **12073 CEDAR AVE** **N/A**
< 1/8 **BLOOMINGTON, CA 92316**
0.097 mi.
511 ft. **Site 2 of 3 in cluster D**

Relative:
Higher

Actual:
941 ft.

EDR Historical Auto Stations:

Name:	PRESTIGE PAINT & COLLISION CENTER
Year:	2008
Address:	12073 CEDAR AVE
Name:	INLAND AUTOBODY & PAINT CTR
Year:	2010
Address:	12073 CEDAR AVE
Name:	INLAND AUTOBODY & PAINT CENTER
Year:	2011
Address:	12073 CEDAR AVE
Name:	INLAND AUTOBODY & PAINT CENTER
Year:	2012
Address:	12073 CEDAR AVE

D28 **PRESTIGE PAINT AND COLLISION CENTER** **San Bern. Co. Permit** **S108753254**
NW **12073 CEDAR AVE** **N/A**
< 1/8 **BLOOMINGTON, CA 92316**
0.097 mi.
511 ft. **Site 3 of 3 in cluster D**

Relative:
Higher

Actual:
941 ft.

San Bern. Co. Permit:
Region: SAN BERNARDINO
Facility ID: FA0003921
Owner: MONET, NOEL
Permit Number: PT0007102
Permit Category: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR
Facility Status: INACTIVE
Expiration Date: 05/31/2009

Region: SAN BERNARDINO
Facility ID: FA0003921
Owner: MONET, NOEL
Permit Number: PT0007101
Permit Category: HAZMAT HANDLER 0-10 EMPLOYEES (W/GEN PRMT)
Facility Status: INACTIVE
Expiration Date: 05/31/2009

E29 **SKANSKA** **UST** **U003886167**
SSW **1995 AGUA MANSA RD** **N/A**
< 1/8 **JURUPA VALLEY, CA 92509**
0.104 mi.
550 ft. **Site 1 of 2 in cluster E**

Relative:
Lower

Actual:
875 ft.

UST:
Facility ID: 290
Permitting Agency: RIVERSIDE COUNTY
Latitude: 34.022369
Longitude: -117.38496

RIVERSIDE CO. UST:
Region: RIVERSIDE
Total Tanks: 1

E30 **E L YEAGER CONSTRUCTION CO** **SWEEPS UST** **S101590024**
SSW **1995 AGUA MANSA RD** **CA FID UST** **N/A**
< 1/8 **RIVERSIDE, CA 92502** **EMI**
0.104 mi. **NPDES**
550 ft. **Site 2 of 2 in cluster E** **WDS**

Relative:
Lower

Actual:
875 ft.

SWEEPS UST:
Status: Active
Comp Number: 83
Number: 1
Board Of Equalization: 44-017848
Referral Date: 10-29-92
Action Date: 10-29-92
Created Date: 12-14-88
Owner Tank Id: 001498
SWRCB Tank Id: 33-000-000083-000001
Tank Status: A
Capacity: 12000
Active Date: 10-29-92

E L YEAGER CONSTRUCTION CO (Continued) **S101590024**

Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 83
Number: 1
Board Of Equalization: 44-017848
Referral Date: 10-29-92
Action Date: 10-29-92
Created Date: 12-14-88
Owner Tank Id: 001498
SWRCB Tank Id: 33-000-000083-000002
Tank Status: A
Capacity: 500
Active Date: 10-29-92
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Active
Comp Number: 83
Number: 1
Board Of Equalization: 44-017848
Referral Date: 10-29-92
Action Date: 10-29-92
Created Date: 12-14-88
Owner Tank Id: 001498
SWRCB Tank Id: 33-000-000083-000003
Tank Status: A
Capacity: 10000
Active Date: 10-29-92
Tank Use: PETROLEUM
STG: W
Content: PETROLEUM WA
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 33002486
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7146845360
Mail To: Not reported
Mailing Address: 1995 AGUA MANSA RD
Mailing Address 2: Not reported
Mailing City,St,Zip: RIVERSIDE 92502
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

E L YEAGER CONSTRUCTION CO (Continued) **S101590024**

EMI:

Year:	1990
County Code:	33
Air Basin:	SC
Facility ID:	14479
Air District Name:	SC
SIC Code:	2951
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1993
County Code:	33
Air Basin:	SC
Facility ID:	14479
Air District Name:	SC
SIC Code:	2951
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
County Code:	33
Air Basin:	SC
Facility ID:	14479
Air District Name:	SC
SIC Code:	2951
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0

E L YEAGER CONSTRUCTION CO (Continued) **S101590024**

Region:	8
Regulatory Measure Id:	210773
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I010150
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	06/18/1993
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Skanska USA Civil West CA
Discharge Address:	1995 Agua Mansa Road
Discharge City:	Riverside
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported

E L YEAGER CONSTRUCTION CO (Continued) **S101590024**

CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	210773
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I010150
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	6/18/1993
STATUS CODE NAME:	Active
STATUS DATE:	6/18/1993
PLACE SIZE:	30
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Clark Peterson
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	951-684-5360
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	clark.peterson@skanska.com
OPERATOR NAME:	Skanska USA Civil West CA
OPERATOR ADDRESS:	1995 Agua Mansa Road
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Clark Peterson
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-684-5360
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	clark.peterson@skanska.com
OPERATOR TYPE:	Private Business

E L YEAGER CONSTRUCTION CO (Continued) **S101590024**

DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	970-759-6676
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Clark Peterson
CERTIFIER TITLE:	Vice President Environmental Health and Safety
CERTIFICATION DATE:	28-JUL-15
PRIMARY SIC:	4213-Trucking, Except Local
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

WDS:

Facility ID:	Santa Ana River 33I010150
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	E. L. YEAGER CONSTRUCTION CO
Agency Address:	PO BOX 87
Agency City,St,Zip:	RIVERSIDE 92502
Agency Contact:	Not reported
Agency Telephone:	Not reported
Agency Type:	Private
SIC Code:	0

E L YEAGER CONSTRUCTION CO (Continued) **S101590024**

SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

F31 **RYDER TRUCK RENTAL** **RCRA-SQG** **1000211843**
SW **5880 20TH ST** **SLIC** **CAD981379878**
1/8-1/4 **RIVERSIDE, CA 92509** **SWEEPS UST**
0.131 mi. **HIST UST**
694 ft. **Site 1 of 4 in cluster F** **CA FID UST**
FINDS
Relative: **ECHO**
Lower

Actual: **871 ft.**

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	RYDER TRUCK RENTAL
Facility address:	5880 20TH ST RIVERSIDE, CA 92519
EPA ID:	CAD981379878
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	RYDER TRUCK RENTAL
Owner/operator address:	NOT REQUIRED

RYDER TRUCK RENTAL (Continued) **1000211843**

NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/04/1986
Site name: RYDER TRUCK RENTAL
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 10/20/2006
Date achieved compliance: 10/20/2006
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/20/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

RYDER TRUCK RENTAL (Continued) **1000211843**

Evaluation Action Summary:

Evaluation date:	10/20/2006
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - General
Date achieved compliance:	10/20/2006
Evaluation lead agency:	State

Evaluation date:	06/02/2004
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State Contractor/Grantee

Evaluation date:	09/28/1992
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State Contractor/Grantee

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	11/21/1995
Global Id:	SLT8R1734113
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Lead Agency Case Number:	Not reported
Latitude:	34.019994613531
Longitude:	-117.390503883362
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	SLT8R173
File Location:	Regional Board
Potential Media Affected:	Soil
Potential Contaminants of Concern:	Other Petroleum
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SWEEPS UST:

Status:	Active
Comp Number:	8135
Number:	1
Board Of Equalization:	44-000631
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	000927
SWRCB Tank Id:	33-000-008135-000001
Tank Status:	A
Capacity:	4000
Active Date:	11-18-92
Tank Use:	PETROLEUM
STG:	P
Content:	MOTOR OIL
Number Of Tanks:	5

RYDER TRUCK RENTAL (Continued) **1000211843**

Status: Active
Comp Number: 8135
Number: 1
Board Of Equalization: 44-000631
Referral Date: 11-18-92
Action Date: 11-18-92
Created Date: 02-29-88
Owner Tank Id: 000927
SWRCB Tank Id: 33-000-008135-000002
Tank Status: A
Capacity: 12000
Active Date: 11-18-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 8135
Number: 1
Board Of Equalization: 44-000631
Referral Date: 11-18-92
Action Date: 11-18-92
Created Date: 02-29-88
Owner Tank Id: 000927
SWRCB Tank Id: 33-000-008135-000003
Tank Status: A
Capacity: 12000
Active Date: 11-18-92
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 8135
Number: 1
Board Of Equalization: 44-000631
Referral Date: 11-18-92
Action Date: 11-18-92
Created Date: 02-29-88
Owner Tank Id: 000927
SWRCB Tank Id: 33-000-008135-000004
Tank Status: A
Capacity: 12000
Active Date: 11-18-92
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 8135
Number: 1
Board Of Equalization: 44-000631
Referral Date: 11-18-92
Action Date: 11-18-92

RYDER TRUCK RENTAL (Continued) **1000211843**

Created Date:	02-29-88
Owner Tank Id:	000927
SWRCB Tank Id:	33-000-008135-000005
Tank Status:	A
Capacity:	1500
Active Date:	11-18-92
Tank Use:	OIL
STG:	W
Content:	WASTE OIL
Number Of Tanks:	Not reported

HIST UST:

File Number:	0001F942
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F942.pdf
Region:	STATE
Facility ID:	00000008135
Facility Type:	Other
Other Type:	REPAIR & FUELING
Contact Name:	FRED OLIVARRIA
Telephone:	7147879710
Owner Name:	RYDER TRUCK RENTAL INC.
Owner Address:	3600 N.W. 82ND AVE.
Owner City,St,Zip:	MIAMI, FL 33166
Total Tanks:	0007
Tank Num:	001
Container Num:	1
Year Installed:	1973
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	.202
Leak Detection:	Visual, Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1973
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	.384
Leak Detection:	Visual, Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1973
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	.384
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	4
Year Installed:	1973
Tank Capacity:	00012000
Tank Used for:	PRODUCT

RYDER TRUCK RENTAL (Continued) **1000211843**

Type of Fuel: DIESEL
Container Construction Thickness: .384
Leak Detection: Stock Inventor

Tank Num: 005
Container Num: 5
Year Installed: 1973
Tank Capacity: 00001500
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: .202
Leak Detection: Visual

Tank Num: 006
Container Num: 6
Year Installed: 1973
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Visual

Tank Num: 007
Container Num: 7
Year Installed: 1973
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: Not reported
Leak Detection: Visual

Click here for Geo Tracker PDF:

CA FID UST:
Facility ID: 33002250
Regulated By: UTNKA
Regulated ID: 00008135
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7147879712
Mail To: Not reported
Mailing Address: 5880 20TH ST
Mailing Address 2: Not reported
Mailing City,St,Zip: RIVERSIDE 92519
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

FINDS:

Registry ID: 110055696821

RYDER TRUCK RENTAL (Continued) **1000211843**

Environmental Interest/Information System
STATE MASTER

Registry ID: 110002687263

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

ECHO:

Envid:	1000211843
Registry ID:	110002687263
FIPS Code:	06065
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.02011
Longitude:	-117.39034
Map Icon:	RCRA-IC-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	CENTER OF A FACILITY OR STATION
Accuracy Meters:	30
Derived Tribes:	San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.8 mile(s), San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.8 mile(s)
Derived Huc:	18070203
Derived WBD:	Not reported
Derived STCT FPS:	06065
Derived Zip:	92509
Derived CD113:	41
Derived CB2010:	060650401012001
Percent Minority:	79.905
Pop Den:	2538.26
Major Flag:	Not reported
Active Flag:	Y
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	10/20/2006
Days Last Inspection:	3257
Informal Count:	0
Date Last Informal Action:	10/20/2006
Formal Action Count:	0

RYDER TRUCK RENTAL (Continued) **1000211843**

Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAD981379878
RCRA Permit Types:	SQG
RCRA NAICS:	53212
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	3257
RCRA Informal Count:	Not reported

RYDER TRUCK RENTAL (Continued) **1000211843**

RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002687263
Facility SIC Codes:	Not reported
Facility NAICS Codes:	53212
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	10/20/2006
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	10/20/2006
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported
Envid:	1000211843
Registry ID:	110055696821
FIPS Code:	33
EPA Region:	09
Indian Country Flag:	Not reported
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.02011
Longitude:	-117.39034
Map Icon:	NONE-UNK-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	CENTER OF A FACILITY OR STATION
Accuracy Meters:	30
Derived Tribes:	San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.8 mile(s), San Manuel Band of Mission Indians,

RYDER TRUCK RENTAL (Continued) **1000211843**

	California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.8 mile(s)
Derived Huc:	18070203
Derived WBD:	Not reported
Derived STCT FPS:	06065
Derived Zip:	92509
Derived CD113:	41
Derived CB2010:	060650401012001
Percent Minority:	79.905
Pop Den:	2538.26
Major Flag:	Not reported
Active Flag:	Not reported
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	Not reported
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	Not reported
Programs in SNC:	0
Curr Compliance Status:	Not reported
Curr SNC Flag:	N
3yr Compliance Status:	Not reported
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	N
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported

RYDER TRUCK RENTAL (Continued) **1000211843**

CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	Not reported
RCRA Permit Types:	Not reported
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	Not reported
RCRA Curr Compliance Status:	Not reported
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	Not reported
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110055696821
Facility SIC Codes:	Not reported
Facility NAICS Codes:	Not reported
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

F32
SW
1/8-1/4
0.131 mi.
694 ft.

RYDER TRUCK RENTAL, INC.
5880 20TH ST
RIVERSIDE, CA 92509

Site 2 of 4 in cluster F

Relative:
Lower

Actual:
871 ft.

Database(s): UST
EDR ID Number: U003949046
EPA ID Number: N/A

UST:
Facility ID: 660
Permitting Agency: RIVERSIDE COUNTY
Latitude: 34.0209815
Longitude: -117.389097

RIVERSIDE CO. UST:
Region: RIVERSIDE
Total Tanks: 1

F33
SW
1/8-1/4
0.131 mi.
694 ft.

RYDER TRANSPORTATION SERVICES #Q563
5880 20TH ST.
RIVERSIDE, CA 92509

Site 3 of 4 in cluster F

Relative:
Lower

Actual:
871 ft.

Database(s): AST
EDR ID Number: A100338051
EPA ID Number: N/A

AST:
Certified Unified Program Agencies: Riverside
Owner: Ryder Transportation Services #Q563
Total Gallons: 2,150

F34
SW
1/8-1/4
0.131 mi.
694 ft.

RYDER TRUCK RENTALS, INC.
5880 20TH STREET
RIVERSIDE, CA

Site 4 of 4 in cluster F

Relative:
Lower

Actual:
871 ft.

Database(s): SLIC
EDR ID Number: S101854140
EPA ID Number: N/A

SLIC REG 8:
Type: Soil
Facility Status: Closed
Staff: XXX
Substance: TPH
Lead Agency: Regional Board
Location Code: Not reported
Thomas Bros Code: Not reported

35
NE
1/8-1/4
0.136 mi.
720 ft.

OAKMONT EL RIVINO LLC
5530 EL RIVINO RD
BLOOMINGTON, CA 92316

Relative:
Higher

Actual:
940 ft.

Database(s): San Bern. Co. Permit
EDR ID Number: S102044316
EPA ID Number: N/A

San Bern. Co. Permit:
Region: SAN BERNARDINO
Facility ID: FA0012739
Owner: OAKMONT INDUSTRIAL GROUP
Permit Number: PT0022242
Permit Category: HAZMAT HANDLER 0-10 EMPLOYEES
Facility Status: INACTIVE
Expiration Date: 10/31/2010

OAKMONT EL RIVINO LLC (Continued) **S102044316**

Region: SAN BERNARDINO
Facility ID: FA0012739
Owner: OAKMONT INDUSTRIAL GROUP
Permit Number: PT0022243
Permit Category: SPECIAL GENERATOR
Facility Status: INACTIVE
Expiration Date: 10/31/2010

Region: SAN BERNARDINO
Facility ID: FA0002885
Owner: EL RIVINO CNTRY CLUB, INC
Permit Number: PT0006315
Permit Category: HAZMAT HANDLER 0-10 EMPLOYEES
Facility Status: INACTIVE
Expiration Date: 07/31/2005

Region: SAN BERNARDINO
Facility ID: FA0002885
Owner: EL RIVINO CNTRY CLUB, INC
Permit Number: PT0006316
Permit Category: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR
Facility Status: INACTIVE
Expiration Date: 07/31/2005

G36 **CERTAIN-TEED CORPORATION** **LUST** **S105025842**
SW **2100 AVALON** **HIST CORTESE** **N/A**
1/8-1/4 **RIVERDALE, CA 92509** **NPDES**
0.189 mi.
999 ft. **Site 1 of 5 in cluster G**

Relative:
Lower

Actual:
884 ft.

LUST:
Region: STATE
Global Id: T0606500050
Latitude: 34.0180598788382
Longitude: -117.395907533096
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 10/22/1992
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: SCB
Local Agency: RIVERSIDE COUNTY LOP
RB Case Number: 083300480T
LOC Case Number: 91654
File Location: Local Agency Warehouse
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0606500050
Contact Type: Local Agency Caseworker
Contact Name: SHARON BOLTINGHOUSE
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: sbolting@rivcocha.org

CERTAIN-TEED CORPORATION (Continued) **S105025842**

Phone Number: 9519558980

Global Id: T0606500050
Contact Type: Regional Board Caseworker
Contact Name: ROSE SCOTT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: rscott@waterboards.ca.gov
Phone Number: 9513206375

Status History:
Global Id: T0606500050
Status: Completed - Case Closed
Status Date: 10/22/1992

Global Id: T0606500050
Status: Open - Case Begin Date
Status Date: 06/28/1991

Global Id: T0606500050
Status: Open - Remediation
Status Date: 04/02/1992

Global Id: T0606500050
Status: Open - Site Assessment
Status Date: 07/22/1991

Regulatory Activities:
Global Id: T0606500050
Action Type: Other
Date: 06/28/1991
Action: Leak Stopped

Global Id: T0606500050
Action Type: Other
Date: 07/22/1991
Action: Leak Reported

Global Id: T0606500050
Action Type: ENFORCEMENT
Date: 10/21/1992
Action: File review - #RCDEH Upload Site File 4/21/2010

Global Id: T0606500050
Action Type: REMEDIATION
Date: 04/02/1992
Action: Excavation

Global Id: T0606500050
Action Type: ENFORCEMENT
Date: 10/22/1992
Action: Closure/No Further Action Letter - #RCDEH1022

CERTAIN-TEED CORPORATION (Continued) **S105025842**

HIST CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	083300480T

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	210894
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I015505
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	12/1/1999
STATUS CODE NAME:	Active
STATUS DATE:	12/1/1999
PLACE SIZE:	40
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Marwan Salem
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	909-826-3000
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	MSALEM@UFPI.COM
OPERATOR NAME:	UFP Riverside LLC
OPERATOR ADDRESS:	2801 E Beltline Ave NE
OPERATOR CITY:	Grand Rapids
OPERATOR STATE:	Michigan
OPERATOR ZIP:	49525
OPERATOR CONTACT NAME:	Robert Dickens
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	616-364-6161
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	rdickens@ufpi.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Michigan
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported

CERTAIN-TEED CORPORATION (Continued) **S105025842**

EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Riverside Canal
CERTIFIER NAME:	Jason Croy
CERTIFIER TITLE:	GMO
CERTIFICATION DATE:	12-JUN-15
PRIMARY SIC:	2421-Sawmills and Planing Mills, General
SECONDARY SIC:	2439-Structural Wood Members, NEC
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	210894
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I015505
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	12/01/1999
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	UFP Riverside LLC
Discharge Address:	2801 E Beltline Ave NE
Discharge City:	Grand Rapids
Discharge State:	Michigan
Discharge Zip:	49525
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported

CERTAIN-TEED CORPORATION (Continued) **S105025842**

OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

G37 **CERTAINTEED CORPORATION** **HAZNET** **S112866131**
SW **2100 AVALON AVE** **HWP** **N/A**
1/8-1/4 **RIVERSIDE, CA 92509**
0.189 mi.
999 ft. **Site 2 of 5 in cluster G**

Relative:
Lower

Actual:
884 ft.

HAZNET:

envid:	S112866131
Year:	1998
GEPAID:	CAC001085088
Contact:	LLOYD AMBLER
Telephone:	6103417713

CERTAINTEED CORPORATION (Continued) **S112866131**

Mailing Name: Not reported
Mailing Address: 2100 AVALON AVE
Mailing City,St,Zip: RIVERSIDE, CA 925090000
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 115.4636
Cat Decode: Asbestos containing waste
Method Decode: Disposal, Land Fill
Facility County: Riverside

HWP:
EPA Id: CAD990663320
Cleanup Status: UNKNOWN
Latitude: 34.01919
Longitude: -117.3917
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: Not reported
Assembly District: 60
Senate District: 31
Public Information Officer: Not reported

G38 **CERTAINTEED, RIVERSIDE** **HIST Cal-Sites** **S102008375**
SW **2100 AVALON ST** **N/A**
1/8-1/4 **RIVERSIDE, CA 92509**
0.189 mi.
999 ft. **Site 3 of 5 in cluster G**

Relative:
Lower

Actual:
884 ft.

Calsite:
Region: CYPRESS
Facility ID: 33320002
Facility Type: RP
Type: RESPONSIBLE PARTY
Branch: SB
Branch Name: SO CAL - CYPRESS
File Name: Not reported
State Senate District: 02011984
Status: CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name: CERTIFIED
Lead Agency: N/A
NPL: Not reported
SIC Code: 32
SIC Name: MANU - STONE, CLAY & GLASS PRODUCTS
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Not reported
Staff Member Responsible for Site: Not reported
Supervisor Responsible for Site: Not reported
Region Water Control Board: Not reported
Region Water Control Board Name: Not reported

CERTAINTEED, RIVERSIDE (Continued) **S102008375**

Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	Not reported
State Assembly District Code:	66
State Senate District Code:	31
Facility ID:	33320002
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02011984
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	2100 AVALON STREET
Alternate City,St,Zip:	RIVERSIDE, CA 92502
Alternate Address:	2100 AVALON ST
Alternate City,St,Zip:	RIVERSIDE, CA 92509
Background Info:	Not reported
Comments Date:	01181996
Comments:	Our records do not indicate the actual date this site was
Comments Date:	01181996
Comments:	certified. Our records show 02/1984. We have used
Comments Date:	01181996
Comments:	02/01/1984 because this gives us the earliest statute of
Comments Date:	01181996
Comments:	limitations.
Comments Date:	01181996
Comments:	Not reported
Comments Date:	02011984
Comments:	80 cubic yards of contaminated soil removed.
Comments Date:	02011984
Comments:	This certification was comfirmed by a report prepared by the
Comments Date:	02011984
Comments:	Auditor General. The Auditor General conducted an audit of
Comments Date:	02011984
Comments:	the Department’s records to confirm a list of sites where
Comments Date:	02011984
Comments:	the Department was involved in the cleanup and the cleanup
Comments Date:	02011984
Comments:	had been completed. This Auditor General list became the

CERTAINTEED, RIVERSIDE (Continued) **S102008375**

Comments Date:	02011984
Comments:	basis for our historical certification information. Many of
Comments Date:	02011984
Comments:	the sites on this list were handled by our Surveillance and
Comments Date:	02011984
Comments:	Enforcement Staff. Much of this work was in response to
Comments Date:	02011984
Comments:	complaints from the public or reports from industry and the
Comments Date:	02011984
Comments:	response action may have only addressed the immediate
Comments Date:	02011984
Comments:	problem and not the entire facility.
ID Name:	Not reported
ID Value:	Not reported
Alternate Name:	CERTAINTEED, RIVERSIDE
Special Programs Code:	Not reported
Special Programs Name:	Not reported

G39 **USP RIVERSIDE LLC** **RCRA-SQG** **1000395862**
SW **2100 AVALON ST** **RESPONSE** **CAD990663320**
1/8-1/4 **RIVERSIDE, CA 92509** **ENVIROSTOR**
0.189 mi. **LUST**
999 ft. **Site 4 of 5 in cluster G** **HIST UST**
CHMIRS
Relative: **LDS**
Lower **FTTS**
HIST FTTS
Actual: **FINDS**
884 ft. **EMI**
NPDES
WDS
ECHO

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	CERTAINTEED CORP
Facility address:	2100 AVALON ST RIVERSIDE, CA 92509
EPA ID:	CAD990663320
Mailing address:	BOX SEVENTH HUNDRED SIXTH RIVERSIDE, CA 92502
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

USP RIVERSIDE LLC (Continued) **1000395862**

Owner/operator name: CERTAINTEEN CORPORATION
Owner/operator address: P.O. BOX 869
CITY NOT REPORTED, PA 99999
Owner/operator country: Not reported
Owner/operator telephone: (215) 687-5000
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: CERTAINTEEN CORPORATION
Owner/operator address: P.O. BOX 869
VALLEY FORGE, PA 19482
Owner/operator country: Not reported
Owner/operator telephone: (215) 687-5000
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/01/1996
Site name: CERTAINTEED CORP
Classification: Small Quantity Generator

Date form received by agency: 04/10/1990
Site name: CERTAINTEED CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Site name: CERTAINTEED CORP
Classification: Conditionally Exempt Small Quantity Generator

Corrective Action Summary:
Event date: 01/01/1990
Event: CA029ST

Facility Has Received Notices of Violations:

USP RIVERSIDE LLC (Continued) **1000395862**

Regulation violated: FR - 263
Area of violation: Transporters - General
Date violation determined: 08/11/1988
Date achieved compliance: 11/28/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/25/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 08/11/1988
Date achieved compliance: 11/28/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/25/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 08/03/1988
Date achieved compliance: 11/28/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 08/06/1987
Date achieved compliance: 08/31/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/06/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 263

USP RIVERSIDE LLC (Continued) **1000395862**

Area of violation: Transporters - General
Date violation determined: 08/06/1987
Date achieved compliance: 08/31/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/06/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 12/12/1986
Date achieved compliance: 07/21/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/30/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/04/1986
Date achieved compliance: 08/04/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/04/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 12/19/1985
Date achieved compliance: 08/04/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/23/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General

USP RIVERSIDE LLC (Continued) **1000395862**

Date violation determined: 09/25/1985
Date achieved compliance: 08/04/1986
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/23/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 08/11/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/28/1988
Evaluation lead agency: State

Evaluation date: 08/11/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 11/28/1988
Evaluation lead agency: State

Evaluation date: 08/03/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 11/28/1988
Evaluation lead agency: State

Evaluation date: 08/06/1987
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/31/1987
Evaluation lead agency: State

Evaluation date: 08/06/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 08/31/1987
Evaluation lead agency: State

Evaluation date: 12/12/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 07/21/1987
Evaluation lead agency: State

Evaluation date: 08/04/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/04/1986
Evaluation lead agency: State

Evaluation date: 07/10/1986
Evaluation: NON-FINANCIAL RECORD REVIEW

USP RIVERSIDE LLC (Continued) **1000395862**

Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/10/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/19/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/04/1986
Evaluation lead agency: State

Evaluation date: 10/03/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/03/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/25/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/04/1986
Evaluation lead agency: EPA

Evaluation date: 07/30/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/23/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

RESPONSE:
Facility ID: 33320002
Site Type: State Response
Site Type Detail: State Response or NPL
Acres: 20.8
National Priorities List: NO
Cleanup Oversight Agencies: NONE SPECIFIED
Lead Agency Description: Not reported
Project Manager: Not reported
Supervisor: Thomas Cota
Division Branch: Cleanup Cypress
Site Code: Not reported

USP RIVERSIDE LLC (Continued) **1000395862**

Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	60
Senate:	31
Special Program Status:	Not reported
Status:	Certified
Status Date:	02/01/1984
Restricted Use:	NO
Funding:	Responsible Party
Latitude:	34.01982
Longitude:	-117.3954
APN:	NONE SPECIFIED
Past Use:	MANUFACTURING - OTHER
Potential COC :	Asbestos Containing Materials (ACM
Confirmed COC:	Asbestos Containing Materials (ACM
Potential Description:	SOIL
Alias Name:	110002144581
Alias Type:	EPA (FRS #)
Alias Name:	33320002
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	02/01/1984
Comments:	Our records do not indicate the actual date this site was certified. Our records show 02/1984. We have used 02/01/1984 because this gives us the earliest statute of limitations.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

ENVIROSTOR:

Facility ID:	80001506
Status:	* Inactive
Status Date:	01/01/2008
Site Code:	Not reported
Site Type:	Corrective Action
Site Type Detailed:	Corrective Action
Acres:	0
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	* Unknown
Division Branch:	Cleanup Cypress
Assembly:	60
Senate:	31
Special Program:	Not reported
Restricted Use:	NO

USP RIVERSIDE LLC (Continued) **1000395862**

Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 34.01919
Longitude: -117.3917
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD990663320
Alias Type: EPA Identification Number
Alias Name: 80001506
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 33320002
Status: Certified
Status Date: 02/01/1984
Site Code: Not reported
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 20.8
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Thomas Cota
Division Branch: Cleanup Cypress
Assembly: 60
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 34.01982
Longitude: -117.3954
APN: NONE SPECIFIED
Past Use: MANUFACTURING - OTHER
Potential COC: Asbestos Containing Materials (ACM
Confirmed COC: Asbestos Containing Materials (ACM
Potential Description: SOIL
Alias Name: 110002144581

USP RIVERSIDE LLC (Continued) **1000395862**

Alias Type: EPA (FRS #)
Alias Name: 33320002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 02/01/1984
Comments: Our records do not indicate the actual date this site was certified. Our records show 02/1984. We have used 02/01/1984 because this gives us the earliest statute of limitations.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083300480T
Local Case Num: 91654
Case Type: Soil only
Substance: Diesel
Qty Leaked: Not reported
Abate Method: Not reported
Cross Street: 36TH
Enf Type: CLOS
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Not reported
Leak Cause: Not reported
Leak Source: Piping
Global ID: T0606500050
How Stopped Date: 6/28/1991
Enter Date: 7/21/1987
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: Not reported
Discover Date: 7/1/1991
Enforcement Date: Not reported
Close Date: 10/22/1992
Date Prelim Assessment Workplan Submitted: 7/22/1991
Date Pollution Characterization Began: Not reported
Date Remediation Plan Submitted: Not reported
Date Remedial Action Underway: Not reported
Date Post Remedial Action Monitoring: Not reported
Enter Date: 7/21/1987
GW Qualifies: Not reported
Soil Qualifies: Not reported

USP RIVERSIDE LLC (Continued) **1000395862**

Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.018806
Longitude:	-117.3917223
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	RS
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	91654
Employee:	Thompson
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

HIST UST:

File Number:	0001F4A6
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F4A6.pdf
Region:	STATE
Facility ID:	00000016439
Facility Type:	Other
Other Type:	MANUFACTURING
Contact Name:	ROY WINGARTNER
Telephone:	7146821881
Owner Name:	CERTAINTEED CORPORATION
Owner Address:	750 SWEDESFORD RD.
Owner City,St,Zip:	VALLEY FORGE, PA 19482
Total Tanks:	0004
Tank Num:	001
Container Num:	#1
Year Installed:	1974
Tank Capacity:	00050000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	1/4"
Leak Detection:	Visual, Stock Inventor

USP RIVERSIDE LLC (Continued) **1000395862**

Tank Num:	001
Container Num:	#1
Year Installed:	1974
Tank Capacity:	00050000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	1/4"
Leak Detection:	Visual, Stock Inventor

Tank Num:	002
Container Num:	#2
Year Installed:	1966
Tank Capacity:	00020000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	1/4"
Leak Detection:	None

Tank Num:	002
Container Num:	#2
Year Installed:	1966
Tank Capacity:	00020000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	1/4"
Leak Detection:	None

Tank Num:	003
Container Num:	#3
Year Installed:	1976
Tank Capacity:	00020000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	3/32
Leak Detection:	None

Tank Num:	003
Container Num:	#3
Year Installed:	1976
Tank Capacity:	00020000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	3/32
Leak Detection:	None

Tank Num:	004
Container Num:	#4
Year Installed:	1966
Tank Capacity:	00250000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	8
Leak Detection:	None

Tank Num:	004
Container Num:	#4
Year Installed:	1966

USP RIVERSIDE LLC (Continued) **1000395862**

Tank Capacity:	00250000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	8
Leak Detection:	None

Click here for Geo Tracker PDF:

CHMIRS:

OES Incident Number:	12-5953
OES notification:	10/02/2012
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Industrial Plant
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1700
Year:	2012
Agency:	SoCal Edison
Incident Date:	10/1/2012
Admin Agency:	Riverside City Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Mineral Oil from 1972 pad mount transformer

USP RIVERSIDE LLC (Continued) **1000395862**

Quantity Released:	1
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Equipment failure caused this transformer to release to the concrete.

LDS:

Global Id:	L10004773685
Latitude:	34.01983
Longitude:	-117.3920
Case Type:	Land Disposal Site
Status:	Completed - Case Closed
Status Date:	11/02/2009
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Caseworker:	KDP
Local Agency:	Not reported
RB Case Number:	8 332001001
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Not reported
EDR Link ID:	L10004773685
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

FTTS INSP:

Inspection Number:	19871027CA001 1
Region:	09
Inspection Date:	10/27/87
Inspector:	BERMAN
Violation occurred:	Yes
Investigation Type:	Section 6 PCB State Conducted
Investigation Reason:	Neutral Scheme, State
Legislation Code:	TSCA
Facility Function:	User

HIST FTTS INSP:

Inspection Number:	19871027CA001 1

USP RIVERSIDE LLC (Continued) **1000395862**

Region: 09
Inspection Date: Not reported
Inspector: BERMAN
Violation occurred: Yes
Investigation Type: Section 6 PCB State Conducted
Investigation Reason: Neutral Scheme, State
Legislation Code: TSCA
Facility Function: User

FINDS:

Registry ID: 110055672106

Environmental Interest/Information System
STATE MASTER

Registry ID: 110002144581

Environmental Interest/Information System
California Department of Toxic Substances Control EnviroStor System (DTSC-EnviroStor) is an online search and Geographic Information System (GIS) tool for identifying sites that have known contamination or sites for which there may be reasons to investigate further. The EnviroStor database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites.

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

EMI:
Year: 1987
County Code: 33
Air Basin: SC
Facility ID: 16952
Air District Name: SC
SIC Code: 3317
Air District Name: SOUTH COAST AQMD

USP RIVERSIDE LLC (Continued) **1000395862**

Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	8
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	1990
County Code:	33
Air Basin:	SC
Facility ID:	16952
Air District Name:	SC
SIC Code:	3317
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	287720
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I003002
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	4/2/1992
STATUS CODE NAME:	Terminated
STATUS DATE:	4/2/1992
PLACE SIZE:	40
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	James A Burke
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	714-628-1881
FACILITY CONTACT PHONE EXT:	Not reported

USP RIVERSIDE LLC (Continued) **1000395862**

FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Certainteed Corp
OPERATOR ADDRESS:	PO Box 706
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92502
OPERATOR CONTACT NAME:	James A Burke
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	714-682-1881
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	714-628-1881
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	3292-Asbestos Products
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

WDS:

Facility ID:	Santa Ana River 33I015505
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.

USP RIVERSIDE LLC (Continued) **1000395862**

NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	9098263000
Facility Contact:	HODGE JOHN
Agency Name:	UNIVERSAL FOREST PRODUCTS
Agency Address:	PO BOX 3589
Agency City,St,Zip:	RIVERSIDE 925193589
Agency Contact:	SCOTT W. CONKLIN
Agency Telephone:	9098263000
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

ECHO:

Envid:	1000395862
Registry ID:	110002144581
FIPS Code:	06065
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.01845
Longitude:	-117.392269
Map Icon:	RCRA-IC-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters:	50
Derived Tribes:	San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 13 mile(s)
Derived Huc:	18070203

USP RIVERSIDE LLC (Continued) **1000395862**

Derived WBD:	180702030804
Derived STCT FPS:	06065
Derived Zip:	92509
Derived CD113:	41
Derived CB2010:	060650401012002
Percent Minority:	79.309
Pop Den:	2596.73
Major Flag:	Not reported
Active Flag:	Y
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	08/11/1988
Days Last Inspection:	9901
Informal Count:	0
Date Last Informal Action:	10/25/1988
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	_____
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported

USP RIVERSIDE LLC (Continued) **1000395862**

CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAD990663320
RCRA Permit Types:	SQG
RCRA NAICS:	327999 33121
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	9901
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	_____
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	92509CRTNT2100A
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Y
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002144581
Facility SIC Codes:	3292
Facility NAICS Codes:	327999 33121
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	08/11/1988
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	01/23/1985
Facility Date Last Informal ACT ST:	10/25/1988
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported
Envid:	1000395862
Registry ID:	110055672106

USP RIVERSIDE LLC (Continued) **1000395862**

FIPS Code:	33
EPA Region:	09
Indian Country Flag:	Not reported
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.01845
Longitude:	-117.392269
Map Icon:	NONE-UNK-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters:	50
Derived Tribes:	San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 13 mile(s)
Derived Huc:	18070203
Derived WBD:	180702030804
Derived STCT FPS:	06065
Derived Zip:	92509
Derived CD113:	41
Derived CB2010:	060650401012002
Percent Minority:	79.309
Pop Den:	2596.73
Major Flag:	Not reported
Active Flag:	Not reported
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	Not reported
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	Not reported
Programs in SNC:	0
Curr Compliance Status:	Not reported
Curr SNC Flag:	N
3yr Compliance Status:	Not reported
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	N
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported

USP RIVERSIDE LLC (Continued) **1000395862**

CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	Not reported
RCRA Permit Types:	Not reported
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	Not reported
RCRA Curr Compliance Status:	Not reported
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	Not reported
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported

USP RIVERSIDE LLC (Continued) **1000395862**

GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110055672106
Facility SIC Codes:	Not reported
Facility NAICS Codes:	Not reported
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

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40 **PRITCHETT, MR** **SWEEPS UST** **S106930900**
NNE **11918 W HALL AVE** **N/A**
1/8-1/4 **BLOOMINGTON, CA 92316**
0.235 mi.
1241 ft.

Relative: **Lower**

Actual: **935 ft.**

SWEEPS UST:

Status:	Active
Comp Number:	13392
Number:	2
Board Of Equalization:	Not reported
Referral Date:	03-19-92
Action Date:	03-19-92
Created Date:	09-21-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	36-000-013392-000001
Tank Status:	A
Capacity:	1
Active Date:	09-21-88
Tank Use:	UNKNOWN
STG:	P
Content:	UNKNOWN
Number Of Tanks:	1

G41 **BRINE FAC,CRESTMORE** **WMUDS/SWAT** **S103443354**
SW **2100 AVALON ST.** **N/A**
1/8-1/4 **RIVERSIDE CA, CA**
0.235 mi.
1243 ft. **Site 5 of 5 in cluster G**

Relative: **Lower**

Actual: **884 ft.**

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.
Primary Waste:	PROCES
Primary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD,

BRINE FAC,CRESTMORE (Continued) **S103443354**

	Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Private
Agency Name:	CERTAIN-TEED PROD CORP
Agency Department:	Not reported
Agency Address:	PO BOX 706
Agency City,St,Zip:	RIVERSIDE CA 92502
Agency Contact:	BOB ELLIOTT
Agency Telephone:	9096821881
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	Not reported
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	8
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	3272
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	True
Solid Waste Assessment Test Program:	False
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Sub Chapter 15:	True
Regional Board Project Officer:	Not reported
Number of WMUDS at Facility:	0
Section Range:	Not reported
RCRA Facility:	No
Waste Discharge Requirements:	H
Self-Monitoring Rept. Frequency:	Quarterly Submittal

BRINE FAC,CRESTMORE (Continued) **S103443354**

Waste Discharge System ID: 8 332001001
Solid Waste Information ID: Not reported

H42 **SOUTHLAND ENGINEERING** **AST** **A100337381**
ESE **1755 BROWN ST.** **N/A**
1/8-1/4 **RIVERSIDE, CA 92509**
0.240 mi.
1267 ft. **Site 1 of 3 in cluster H**

Relative:
Lower

Actual:
898 ft.

AST:
Certified Unified Program Agencies: Riverside
Owner: Southland Engineering
Total Gallons: 4,000

H43 **RIOS RECYCLING** **SWF/LF** **S104579463**
ESE **1755 BROWN AVE.** **NPDES** **N/A**
1/8-1/4 **RIVERSIDE, CA 92509** **WDS**
0.240 mi.
1267 ft. **Site 2 of 3 in cluster H**

Relative:
Lower

Actual:
898 ft.

LOS ANGELES CO. LF:
Site ID: 2748
Alt. Address: N/A
Site Contact: Not reported
Site Contact Phone: (951) 786-7781
Site Email: Not reported
Site Website: N/A
Site Type: Out-of-County Facility
Site SWIS Number: 33-AA-0316
Beginning Operation Date: N/A
Ending Operation Date: N/A
Local Enforcement Agency: County of Riverside Community Health Agency
Maximun Depth Fill(Ft): Not reported
Permitted Capacity: 199
Present Use: Chipping and Grinding Activity Fac./ Op.
Remaining Capacity(Million): N/A
Status: Active
Waste Accepted: Green Materials;
Hours of Operation: Monday - Friday 6 am - 5 pm Saturday 6 am - 4 pm
Disposal Area (Acre): Not reported

Detail As Of 01/2014:
Operator Name: Unknown
Operator Address: Not reported
Operator City/State/Zip: Not reported
Operator Contact: Not reported
Operator Telephone: Not reported
Operator Email: Not reported
Owner Name: Unknown
Owner Address: Not reported
Owner City/State/Zip: Not reported
Owner Contact: Not reported
Owner Telephone: Not reported
Owner Email: Not reported

NPDES:

RIOS RECYCLING (Continued) **S104579463**

Npdes Number:	CAS000001
Facility Status:	Terminated
Agency Id:	0
Region:	8
Regulatory Measure Id:	288993
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I019799
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	09/26/2005
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	12/07/2012
Discharge Name:	Inland Empire Truss Inc
Discharge Address:	1755 Brown Ave
Discharge City:	Riverside
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported

RIOS RECYCLING (Continued) **S104579463**

CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	288993
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I019799
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	12/7/2012
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	9/26/2005
STATUS CODE NAME:	Terminated
STATUS DATE:	2/26/2013
PLACE SIZE:	22
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Debbie Meier
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	951-300-1758
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Inland Empire Truss Inc
OPERATOR ADDRESS:	1755 Brown Ave
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Dan Irwin
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-300-1758

RIOS RECYCLING (Continued) **S104579463**

OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Other
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	951-300-1758
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	David Baxter
CERTIFIER TITLE:	Director Of Engineering
CERTIFICATION DATE:	07-SEP-05
PRIMARY SIC:	2452-Prefabricated Wood Buildings and Components
SECONDARY SIC:	5099-Durable Goods, NEC
TERTIARY SIC:	Not reported

WDS:

Facility ID:	Santa Ana River 33I015784
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	9096828500
Facility Contact:	LEWIS GREEN
Agency Name:	CAN FIBRE OF RIVERSIDE
Agency Address:	1755 BROWN AVE.
Agency City,St,Zip:	RIVERSIDE 92509
Agency Contact:	LEWIS GREEN

RIOS RECYCLING (Continued) **S104579463**

Agency Telephone:	9096828500
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
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H44 **CAN FIBRE** **RCRA-SQG** **1004676468**
ESE **1755 BROWN AVENUE** **FINDS** **CAR000085670**
1/8-1/4 **RIVERSIDE, CA 92509** **HAZNET**
0.240 mi. **NPDES**
1267 ft. **Site 3 of 3 in cluster H** **ECHO**

Relative:
Lower

Actual:
898 ft.

RCRA-SQG:

Date form received by agency:	01/17/2001
Facility name:	CAN FIBRE
Facility address:	1755 BROWN AVE RIVERSIDE, CA 92507
EPA ID:	CAR000085670
Contact:	DEBRA DICKERSON
Contact address:	1755 BROWN AVE RIVERSIDE, CA 92507
Contact country:	US
Contact telephone:	(909) 682-8500
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	CAN FIBRE
Owner/operator address:	1755 BROWN AVE

CAN FIBRE (Continued) **1004676468**

RIVERSIDE, CA 92507
Owner/operator country: Not reported
Owner/operator telephone: (909) 682-8500
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

FINDS:

Registry ID: 110012229739

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
envid: 1004676468
Year: 2001
GEPAID: CAR000085670
Contact: --
Telephone: 9096828500
Mailing Name: Not reported
Mailing Address: 1755 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925070000
Gen County: Not reported
TSD EPA ID: CAT000613927

CAN FIBRE (Continued) **1004676468**

TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.67
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Transfer Station
Facility County: Riverside

envid: 1004676468
Year: 2001
GEPAID: CAR000085670
Contact: --
Telephone: 9096828500
Mailing Name: Not reported
Mailing Address: 1755 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925070000
Gen County: Not reported
TSD EPA ID: CAT000613893
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.12
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Transfer Station
Facility County: Riverside

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	442414
Order No:	Not reported
Regulatory Measure Type:	Region 8 - Scrap Metal Permit
Place Id:	Not reported
WDID:	8 33MR000049
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	11/4/2013
PROCESSED DATE:	11/7/2013
STATUS CODE NAME:	Active
STATUS DATE:	11/7/2013
PLACE SIZE:	21.5
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Brian Chen
FACILITY CONTACT TITLE:	General Manager
FACILITY CONTACT PHONE:	909-267-8889
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	brian@inlandcompressing.com

CAN FIBRE (Continued) **1004676468**

OPERATOR NAME:	Inland Compressing Company
OPERATOR ADDRESS:	1755 Brown Ave
OPERATOR CITY:	Jurupa Valley
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Brian Chen
OPERATOR CONTACT TITLE:	General Manager
OPERATOR CONTACT PHONE:	909-267-8889
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	brian@inlandcompressing.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	BRIAN CHEN
CERTIFIER TITLE:	GENERAL MANAGER
CERTIFICATION DATE:	04-NOV-13
PRIMARY SIC:	5093-Scrap and Waste Materials
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	442414
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33MR000049
Program Type:	Region 8 - Scrap Metal Permit
Adoption Date Of Regulatory Measure:	Not reported

CAN FIBRE (Continued) **1004676468**

Effective Date Of Regulatory Measure:	11/07/2013
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Inland Compressing Company
Discharge Address:	1755 Brown Ave
Discharge City:	Jurupa Valley
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported

CAN FIBRE (Continued) **1004676468**

RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

ECHO:

Envid:	1004676468
Registry ID:	110012229739
FIPS Code:	06065
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.020775
Longitude:	-117.375395
Map Icon:	RCRA-IC-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters:	50
Derived Tribes:	San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.1 mile(s), San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.2 mile(s)
Derived Huc:	18070203
Derived WBD:	Not reported
Derived STCT FPS:	06065
Derived Zip:	92509
Derived CD113:	35
Derived CB2010:	060710040042101
Percent Minority:	79.397
Pop Den:	2335.82
Major Flag:	Not reported
Active Flag:	Y
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0
Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	_____
AFS Flag:	N

CAN FIBRE (Continued) **1004676468**

NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAR000085670
RCRA Permit Types:	SQG
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation
RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	
SDWA IDS:	Not reported
SDWA System Types:	Not reported

CAN FIBRE (Continued) **1004676468**

SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110012229739
Facility SIC Codes:	Not reported
Facility NAICS Codes:	Not reported
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

45
SW
1/8-1/4
0.245 mi.
1293 ft.

FLEETWOOD HOMES OF CA #9 **RCRA-SQG** **1000224104**
6001 20TH ST **CAD981689805**
RUBIDOUX, CA 92509

Relative:
Lower

Actual:
899 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	FLEETWOOD HOMES OF CA #9
Facility address:	6001 20TH ST RUBIDOUX, CA 92509
EPA ID:	CAD981689805
Mailing address:	PO BOX 3529 RUBIDOUX, CA 92519
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

FLEETWOOD HOMES OF CA #9 (Continued) **1000224104**

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: FLEETWOOD ENTERPRISES
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 11/24/1986
Site name: FLEETWOOD HOMES OF CA #9
Classification: Large Quantity Generator

Violation Status: No violations found

46
East
1/8-1/4
0.250 mi.
1319 ft.

Relative:
Lower

Actual:
914 ft.

VARNER CONSTRUCTION **RCRA-SQG** **1004675520**
1893 BROWN AVE **LUST** **CAR000073957**
RIVERSIDE, CA 92509 **FINDS**
HAZNET
ECHO

RCRA-SQG:
Date form received by agency: 05/24/2000
Facility name: VARNER CONSTRUCTION
Facility address: 1893 BROWN AVE
RIVERSIDE, CA 92509
EPA ID: CAR000073957
Contact: ED ZIEMBA
Contact address: 1893 BROWN AVE

VARNER CONSTRUCTION (Continued) **1004675520**

RIVERSIDE, CA 92509
Contact country: US
Contact telephone: (909) 781-2920
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: STEVE VARNER
Owner/operator address: 1893 BROWN AVE
RIVERSIDE, CA 92509
Owner/operator country: Not reported
Owner/operator telephone: (909) 781-2920
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

LUST:
Region: STATE
Global Id: T0606500417
Latitude: 34.0204461793474
Longitude: -117.375751998217
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/27/1995
Lead Agency: RIVERSIDE COUNTY LOP

VARNER CONSTRUCTION (Continued) **1004675520**

Case Worker: UNK
Local Agency: RIVERSIDE COUNTY LOP
RB Case Number: 083302628T
LOC Case Number: 95084
File Location: Local Agency Warehouse
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0606500417
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Global Id: T0606500417
Contact Type: Local Agency Caseworker
Contact Name: UNK
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: Not reported

Status History:
Global Id: T0606500417
Status: Completed - Case Closed
Status Date: 09/27/1995

Global Id: T0606500417
Status: Open - Case Begin Date
Status Date: 01/30/1995

Global Id: T0606500417
Status: Open - Remediation
Status Date: 01/31/1995

Global Id: T0606500417
Status: Open - Site Assessment
Status Date: 01/31/1995

Regulatory Activities:
Global Id: T0606500417
Action Type: Other
Date: 01/30/1995
Action: Leak Stopped

Global Id: T0606500417
Action Type: ENFORCEMENT
Date: 09/27/1995
Action: Closure/No Further Action Letter - #RCDEH0927

VARNER CONSTRUCTION (Continued) **1004675520**

Global Id: T0606500417
Action Type: Other
Date: 01/31/1995
Action: Leak Reported

Global Id: T0606500417
Action Type: REMEDIATION
Date: 11/17/1994
Action: Excavation

Global Id: T0606500417
Action Type: Other
Date: 01/30/1995
Action: Leak Discovery

Global Id: T0606500417
Action Type: ENFORCEMENT
Date: 09/26/1995
Action: File review - #RCDEH Upload Site File 9/30/2015

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083302628T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Diesel
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	AGUA MANSA (WILSON)
Enf Type:	CLOS
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	UNK
Global ID:	T0606500417
How Stopped Date:	1/30/1995
Enter Date:	2/24/1995
Date Confirmation of Leak Began:	1/31/1995
Date Preliminary Assessment Began:	Not reported
Discover Date:	1/30/1995
Enforcement Date:	Not reported
Close Date:	9/27/1995
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	2/19/1995
Date Remedial Action Underway:	7/24/1995
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	2/24/1995
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported

VARNER CONSTRUCTION (Continued) **1004675520**

Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.0265539
Longitude:	-117.3753127
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	1
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	CAB
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	95084
Employee:	Malloy
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

VENTURA CO. LUST:

Region:	VENTURA
Facility ID:	95084
Status:	Case Closed

FINDS:

Registry ID: 110002937485

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

envid:	1004675520
Year:	2008
GEPAID:	CAR000073957
Contact:	RICHARD DORMACK SHOP FOREMAN

VARNER CONSTRUCTION (Continued) **1004675520**

Telephone:	9097812920
Mailing Name:	Not reported
Mailing Address:	1893 BROWN AVE
Mailing City,St,Zip:	RIVERSIDE, CA 925090000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.75
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside

envid:	1004675520
Year:	2001
GEPAID:	CAR000073957
Contact:	RICHARD DORMACK SHOP FOREMAN
Telephone:	9097812920
Mailing Name:	Not reported
Mailing Address:	1893 BROWN AVE
Mailing City,St,Zip:	RIVERSIDE, CA 925090000
Gen County:	Not reported
TSD EPA ID:	CAT080025711
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Transfer Station
Tons:	2.91
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Transfer Station
Facility County:	Riverside

envid:	1004675520
Year:	2001
GEPAID:	CAR000073957
Contact:	RICHARD DORMACK SHOP FOREMAN
Telephone:	9097812920
Mailing Name:	Not reported
Mailing Address:	1893 BROWN AVE
Mailing City,St,Zip:	RIVERSIDE, CA 925090000
Gen County:	Not reported
TSD EPA ID:	CAT000613927
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Transfer Station
Tons:	0.57
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Transfer Station
Facility County:	Riverside

envid:	1004675520
Year:	2000
GEPAID:	CAR000073957
Contact:	RICHARD DORMACK SHOP FOREMAN
Telephone:	9097812920
Mailing Name:	Not reported

VARNER CONSTRUCTION (Continued) **1004675520**

Mailing Address: 1893 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925090000
Gen County: Not reported
TSD EPA ID: CAT000613927
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.16
Cat Decode: Aqueous solution with total organic residues less than 10 percent
Method Decode: Transfer Station
Facility County: Riverside

ECHO:

Envid:	1004675520
Registry ID:	110002937485
FIPS Code:	06065
EPA Region:	09
Indian Country Flag:	N
Federal Flag:	Not reported
US Mexico Border Flag:	N
Chesapeake Bay Flag:	Not reported
NAA Flag:	Y
Latitude:	34.019969
Longitude:	-117.375398
Map Icon:	RCRA-IC-MN-N.png
Collection Method:	ADDRESS MATCHING-HOUSE NUMBER
Reference Point:	ENTRANCE POINT OF A FACILITY OR STATION
Accuracy Meters:	50
Derived Tribes:	San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.2 mile(s), San Manuel Band of Mission Indians, California (previously listed as the San Manual Band of Serrano Mission Indians of the San Manual Reservation) - 12.2 mile(s)
Derived Huc:	18070203
Derived WBD:	Not reported
Derived STCT FPS:	06065
Derived Zip:	92509
Derived CD113:	35
Derived CB2010:	060710040042101
Percent Minority:	79.473
Pop Den:	2379.5
Major Flag:	Not reported
Active Flag:	Y
MYRTK Universe:	NNN
Inspection Count:	0
Date Last Inspection:	Not reported
Days Last Inspection:	Not reported
Informal Count:	0
Date Last Informal Action:	Not reported
Formal Action Count:	0
Date Last Formal Action:	Not reported
Total Penalties:	0
Penalty Count:	0
Date Last Penalty:	Not reported
Last Penalty Amount:	Not reported
QTRS in NC:	0
Programs in SNC:	0

VARNER CONSTRUCTION (Continued) **1004675520**

Curr Compliance Status:	No Violation
Curr SNC Flag:	N
3yr Compliance Status:	
AFS Flag:	N
NPDES Flag:	N
SDWIS Flag:	N
RCRA Flag:	Y
TRI Flag:	N
GHG Flag:	N
AFS IDS:	Not reported
CAA Permit Types:	Not reported
CAA NAICS:	Not reported
CAA SICS:	Not reported
CAA Evaluation Count:	Not reported
CAA Days Last Evaluation:	Not reported
CAA Informal Count:	Not reported
CAA Formal Action Count:	Not reported
CAA Date Last Formal Action:	Not reported
CAA Penalties:	Not reported
CAA Last Penality Date:	Not reported
CAA Last Penality Amount:	Not reported
CAA Qtrs in NC:	Not reported
CAA Curr Compliance Status:	Not reported
CAA Curr HPV Flag:	N
CAA 3yr Compl Qtrs Status:	Not reported
NPDES IDS:	Not reported
CWA Permit Types:	Not reported
CWA Compliance Tracking:	Not reported
CWA NAICS:	Not reported
CWA SICS:	Not reported
CWA Inspection Count:	Not reported
CWA Days Last Inspection:	Not reported
CWA Informal Count:	Not reported
CWA Formal Action Count:	Not reported
CWA Date Last Formal Action:	Not reported
CWA Penalties:	Not reported
CWA Last Penality Date:	Not reported
CWA Last Penality Amount:	Not reported
CWA Qtrs in NC:	Not reported
CWA Curr Compliance Status:	Not reported
CWA Curr SNC Flag:	N
CWA 13QTRS Compl Status:	Not reported
CWA 13QTRS EFFLNT Exceedances:	Not reported
CWA 3tr QNCR Codes:	Not reported
RCRA IDS:	CAR000073957
RCRA Permit Types:	SQG
RCRA NAICS:	Not reported
RCRA Inspection Count:	Not reported
RCRA Days Last Evaluation:	Not reported
RCRA Informal Count:	Not reported
RCRA Formal Action Count:	Not reported
RCRA Date Last Formal Action:	Not reported
RCRA Penalties:	Not reported
RCRA Last Penality Date:	Not reported
RCRA Last Penality Amount:	Not reported
RCRA QTRS in NC:	0
RCRA Curr Compliance Status:	No Violation

VARNER CONSTRUCTION (Continued) **1004675520**

RCRA Curr SNC Flag:	N
RCRA 3yr Compl Qtrs Status:	
SDWA IDS:	Not reported
SDWA System Types:	Not reported
SDWA Informal Count:	Not reported
SDWA Formal Action Count:	Not reported
SDWA Curr Compliance Status:	Not reported
SDWA Curr SNC Flag:	N
TRI IDS:	Not reported
TRI Releases Transfers:	Not reported
TRI on Site Releases:	Not reported
Tri off Site Transfers:	Not reported
TRI Reporter in Past:	Not reported
FEC Case IDS:	Not reported
FEC Number of Cases:	Not reported
FEC Last Case Date:	Not reported
FEC Total Penalties:	Not reported
GHG IDS:	Not reported
GHG CO2 Release:	Not reported
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002937485
Facility SIC Codes:	Not reported
Facility NAICS Codes:	Not reported
Facility Date Last Inspection EPA:	Not reported
Facility Date Last Inspection State:	Not reported
Facility Date Last Formal ACT EPA:	Not reported
Facility Date Last Formal ACT ST:	Not reported
Facility Date Last Inforamal ACT EPA:	Not reported
Facility Date Last Informal ACT ST:	Not reported
Facility Federal Agency:	Not reported
TRI Reporter:	Not reported
Facility IMP Water Flag:	Not reported

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47 **MVP RV INC** **LUST S106387361**
SSE **5300 VIA RICARDO AVE** **NPDES N/A**
1/4-1/2 **RIVERSIDE, CA 92509**
0.384 mi.
2026 ft.

Relative:
Lower

Actual:
893 ft.

LUST:

Region:	STATE
Global Id:	T0606540693
Latitude:	34.01777112
Longitude:	-117.379775315
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/14/2010
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	YR
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	200420231
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Site History/Release Information Two 2,000 gallon gasoline USTs were removed along with associated piping and fuel dispensers in November 2003. Soil samples were collected beneath the dispensers at 2 feet and 5 feet bgs, beneath piping, adjacent to and west of the USTs at 6

MVP RV INC (Continued) **S106387361**

feet bgs, and within the UST cavity at 2 feet and 6 feet bgs. Maximum concentrations were 3780 ppm TPHg (T2-6), 520 ppb B (T2-6), 52600 ppb T (T2-6), 20000 ppb E (T2-6), 522000 ppb X (T2-6), 46 ppb MTBE (LED2), ND<4000 ppb TBA (T2-6), 9.45 ppm lead (T2-6). Samples were analyzed for TPHg, BTEX and oxygenates. The site was placed into LOP on October 23, 2003 for further assessment. Assessment Two soil borings (SB-1 and SB-2) were advanced to groundwater (approximately 76 feet bgs) in the vicinity of the former USTs on April 16, 2004. Soil samples from SB-1 and SB-2 were collected at five-foot intervals to a maximum explored depth of 76.5 feet bgs. The highest concentrations were observed from soil samples collected from soil boring SB-1 (UST cavity) at the 15 and 20 foot depths. Maximum concentrations: 350 ppm TPHg (SB-1 at 20 feet bgs), 0.13 ppm B (SB-1 at 20 feet bgs), 5.6 ppm T (SB-1 at 20 feet bgs), 3.8 ppm E (SB-1 at 20 feet bgs), 35 ppm X (SB-1 at 20 feet bgs), 0.53 ppm MTBE (SB-1 at 15 feet bgs), 0.36 ppm tert-Butylbenzene (SB-1 at 20 feet bgs), 1.2 ppm Naphthalene (SB-1 at 20 feet bgs), 5.6 ppm 1,2,4-Trimethylbenzene (SB-1 at 20 feet bgs), 2.7 ppm 1,3,5-Trimethylbenzene (SB-1 at 20 feet bgs), ND<0.50 ppm Ethanol and Methanol. SVE Pilot Testing One vapor extraction well (VE-1) was installed on July 8, 2006 near the southeast corner of the former UST location. SVE well VE-1 was installed to 30 feet bgs and screened between 15 and 30 feet bgs. Soil samples were collected at 5 foot intervals and select samples were analyzed for gasoline and VOCs by EPA Method 8260B. Soil samples collected at 10, 20 and 30 feet bgs were analyzed and were ND for all constituents tested. A SVE pilot test was conducted July 12th through 14th, 2006. The SVE test was proposed for 5-days but was terminated after 48 hours due to a VOC breakthrough. PID readings reported during the SVE test were between 92 to >9999 ppmV and were believed to be erroneous. The consultant stated that laboratory analysis results for vapor samples were at relatively low levels and were inconsistent with field PID readings and more consistent with soil data. The overall mass of vapor phase gasoline recovered over the 48-hour duration of system operation was estimated at 34 lbs (average of 0.7 lbs per hour). Flow rates at VE-1 fluctuated between 50 and 75 cfm. Maximum vapor concentrations were: 740 ppmV TPHg (VE1-3), 2.5 ppmV B (VE1-3), 110 ppmV T (VE1-3), 23 ppmV E (VE1-3), 149 ppmV X (VE1-3), ND MTBE, 11 ppmV 1,2,4 TMB (VE1-3), 5.5 ppmV 1,3,5, TMB (VE1-3). Closure was requested based on the results of the pilot test and five quarters of groundwater monitoring RCDEH denied closure and required the 5-day SVE test to be repeated since vapor concentrations increased over time and the test was terminated after two days. A 5-day SVE pilot test using VE-1 was performed February 17th through 23rd, 2009. Flow rates at VE-1 were erroneously reported to fluctuate between 98 and 269.5 cfm and later corrected to range from 84 to 146 cfm. PID readings throughout the SVE test ranged from 40.4 to >15,000 ppmV. The ROI was calculated to include the entire footprint of the former UST cavity and dispensers. MW-1 is screened from 60 to 95 feet bgs and VE-1 is screened between 15 to 30 feet bgs. The overall mass of vapor phase gasoline recovered over the 143-hr duration of system operation was estimated at 233 lbs (avg of 1.6 lbs/hr). Maximum vapor concentrations were: 1100 ppmV TPHg, 0.97 ppmV B, 80 ppmV T, 20 ppmV E, 176 ppmV X, ND<0.28 ppmV MTBE, 0.94 ppmV isopropylbenzene, 2.4 ppmV n-propylbenzene, 0.24 ppmV PCE, 0.20 ppmV sec-butylbenzene, 11 ppmV 1,2,4-TMB, 5.7 ppmV 1,3,5-TMB. Ending vapor concentrations for most constituents detected were higher at the end of the 5-day SVE pilot test than at the beginning of the test. Based on the elevated

MVP RV INC (Continued) **S106387361**

vapor concentrations detected and mass of vapor phase gasoline recovered during the 5-day SVE pilot test, a 30-day SVE test was required by RCDEH to clearly demonstrate that vapor recovery has reached the point of diminishing returns (asymptotic levels). Soil Excavation Excavation of contaminated soil was proposed in lieu of performing additional SVE testing to expedite site cleanup. Approximately 3200 tons of impacted soil was excavated March 1st through March 23rd, 2010. Twelve (12) confirmation soil samples were collected at the bottom and side walls of the approximately 8192 square feet excavation pit. All soil samples were non-detect for all constituents tested except for 0.006 ppm Xylene and 0.006 ppm 1,2,4 TMB detected in the deep soil sample collected at the west wall of the excavation pit (X24 Deep Wall-W@ approximately 30 feet bgs). Groundwater Monitoring To assess the potential for groundwater impact near the UST, one groundwater monitoring well (MW-1) was installed on July 19, 2004 approximately 20 feet southeast of the former UST cavity that is believed to be downgradient. Soil samples were analyzed at 5 foot intervals from 5 feet to 75 feet bgs. MW-1 was advanced to a depth of 95.5 feet bgs and screened from 56 to 95 feet bgs. Groundwater was encountered at 75 feet bgs. Analytical results for the groundwater sample collected from MW-1 were non-detect for all constituents tested. Maximum soil concentrations were at 65 feet bgs: ND<0.5 ppm TPHg, ND<0.001 ppm B, 0.004 ppm T, 0.002 ppm E, 0.012 ppm X, 0.011 ppm MTBE, ND<0.002 ppm tert-BBNZ, ND<0.002 ppm Napthalene, ND<0.001 ppm 1,2,4-TMB, ND<0.001 ppm 1,3,5-TMB. Five groundwater sampling events were conducted from August 2004 through October 2007. Maximum groundwater concentrations: ND<0.50 ppm TPHg, ND<0.5 ppb B, 0.6 ppb T (10/17/07), ND<1.0 ppb E, ND<1.0 ppb X, ND<5.0 ppb MTBE, 7.6 ppb Naphthalene (9/19/05). Water levels have fluctuated from 73.20 to 78.66 feet bgs. Anticipated groundwater flow direction is to the southeast towards the Santa Ana River. The closest domestic water supply well (Well 04 Old Skotty) is located approximately 1049 feet west of the site and according to the well report on Geotracker, VOCs have not been detected in this well. Regional Board concurred with closure on 5/13/2010 and the no further action/closure letter was issued 6/14/2010

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606540693
Contact Type:	Local Agency Caseworker
Contact Name:	YVONNE REYES
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	ayreyes@rivcocha.org
Phone Number:	9519558982

Global Id:	T0606540693
Contact Type:	Regional Board Caseworker
Contact Name:	TOM E. MBEKE-EKANEM
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	tmbeke-ekanem@waterboards.ca.gov
Phone Number:	9513202007

MVP RV INC (Continued) **S106387361**

Status History:

Global Id:	T0606540693
Status:	Completed - Case Closed
Status Date:	06/14/2010
Global Id:	T0606540693
Status:	Open - Case Begin Date
Status Date:	10/23/2003
Global Id:	T0606540693
Status:	Open - Remediation
Status Date:	02/10/2010
Global Id:	T0606540693
Status:	Open - Site Assessment
Status Date:	12/05/2003

Regulatory Activities:

Global Id:	T0606540693
Action Type:	Other
Date:	10/23/2003
Action:	Leak Stopped
Global Id:	T0606540693
Action Type:	RESPONSE
Date:	06/13/2010
Action:	Well Destruction Report
Global Id:	T0606540693
Action Type:	REMEDIATION
Date:	03/01/2010
Action:	Excavation
Global Id:	T0606540693
Action Type:	RESPONSE
Date:	02/20/2009
Action:	Other Report / Document
Global Id:	T0606540693
Action Type:	RESPONSE
Date:	01/28/2010
Action:	Other Workplan
Global Id:	T0606540693
Action Type:	ENFORCEMENT
Date:	12/08/2008
Action:	Staff Letter - #RCDEH120508
Global Id:	T0606540693
Action Type:	ENFORCEMENT
Date:	01/14/2009
Action:	Staff Letter - #RCDEH011409
Global Id:	T0606540693
Action Type:	ENFORCEMENT
Date:	02/25/2008

MVP RV INC (Continued) **S106387361**

Action:	Technical Correspondence / Assistance / Other - #RCDEH 022508
Global Id:	T0606540693
Action Type:	ENFORCEMENT
Date:	08/12/2009
Action:	Staff Letter - #RCDEH081209
Global Id:	T0606540693
Action Type:	Other
Date:	12/05/2003
Action:	Leak Reported
Global Id:	T0606540693
Action Type:	ENFORCEMENT
Date:	06/14/2010
Action:	Closure/No Further Action Letter - #RCDEH Closure
Global Id:	T0606540693
Action Type:	ENFORCEMENT
Date:	12/14/2009
Action:	Staff Letter - #RCDEH121409
Global Id:	T0606540693
Action Type:	ENFORCEMENT
Date:	02/10/2010
Action:	Staff Letter - #RCDEH021010
Global Id:	T0606540693
Action Type:	ENFORCEMENT
Date:	08/30/2007
Action:	Staff Letter - #RCDEH 083007
Global Id:	T0606540693
Action Type:	REMEDIATION
Date:	07/12/2006
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0606540693
Action Type:	REMEDIATION
Date:	02/17/2009
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0606540693
Action Type:	RESPONSE
Date:	10/12/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0606540693
Action Type:	RESPONSE
Date:	04/08/2010
Action:	Other Report / Document
Global Id:	T0606540693
Action Type:	Other
Date:	12/04/2003
Action:	Leak Discovery

MVP RV INC (Continued) **S106387361**

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 05/13/2010
Action: Staff Letter - #RCDEH051310

Global Id: T0606540693
Action Type: RESPONSE
Date: 01/09/2009
Action: Well Installation Workplan

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Preliminary site assessment underway
Case Number:	Not reported
Local Case Num:	200420231
Case Type:	Undefined
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	WILSON / VIA CERRA
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	OM
How Stopped:	Close Tank
Leak Cause:	UNK
Leak Source:	UNK
Global ID:	T0606540693
How Stopped Date:	10/23/2003
Enter Date:	Not reported
Date Confirmation of Leak Began:	12/5/2003
Date Preliminary Assessment Began:	12/5/2003
Discover Date:	11/20/2003
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	Not reported
Latitude:	0
Longitude:	0
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.

MVP RV INC (Continued) **S106387361**

MTBE Class:	*
Staff:	TME
Staff Initials:	KW
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	Not reported
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	200420231
Employee:	Reyes-LOP
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	407597
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I022830
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	9/4/2014
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	9/20/2010
PROCESSED DATE:	9/20/2010
STATUS CODE NAME:	Terminated
STATUS DATE:	9/4/2014
PLACE SIZE:	12.2
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Chris Godoy
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	951-208-7525
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	MVP RV Inv
OPERATOR ADDRESS:	5300 Via Ricardo Ave
OPERATOR CITY:	Riverside

MVP RV INC (Continued) **S106387361**

OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Sandie Kerrigan
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-208-7234
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	3792-Travel Trailers and Campers
SECONDARY SIC:	3716-Motor Homes
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Terminated
Agency Id:	0
Region:	8
Regulatory Measure Id:	407597
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I022830
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	09/20/2010
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	09/04/2014

MVP RV INC (Continued) **S106387361**

Discharge Name:	MVP RV Inv
Discharge Address:	5300 Via Ricardo Ave
Discharge City:	Riverside
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported

MVP RV INC (Continued) **S106387361**

CERTIFICATION DATE: Not reported
PRIMARY SIC: Not reported
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

48
SE
1/4-1/2
0.495 mi.
2616 ft.

RIOS RECYCLING FACILITY **SWF/LF** **S113473424**
5190 WILSON ST. **N/A**
RIVERSIDE, CA

Relative:
Lower

Actual:
877 ft.

SWF/LF (SWIS):

Region:	STATE
Facility ID:	33-AA-0355
Lat/Long:	34.0204999 / -117.37439
Owner Name:	Michael Madrid
Owner Telephone:	9516834300
Owner Address:	Not reported
Owner Address2:	5190 Wilson St.
Owner City,St,Zip:	Riverside, CA 92509
Operational Status:	Active
Operator:	Chayo Rios
Operator Phone:	9513771363
Operator Address:	Not reported
Operator Address2:	P.O. Box 1463
Operator City,St,Zip:	Chino Hills, CA 91709
Permit Date:	03/20/2013
Permit Status:	Notification
Permitted Acreage:	3.2
Activity:	Chipping and Grinding Activity Fac./ Op.
Regulation Status:	Notification
Landuse Name:	Not reported
GIS Source:	Map
Category:	Composting
Unit Number:	01
Inspection Frequency:	Quarterly
Accepted Waste:	Green Materials,Wood waste
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	Not reported
SWIS Num:	33-AA-0355
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	199
Actual Throughput with Units:	Tons/day
Permitted Capacity with Units:	62400
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Tons/year
Lat/Long:	34.0204999 / -117.37439

49
SSE
1/2-1
0.561 mi.
2964 ft.

SIERRA ALUMINUM CO.
2345 FLEETWOOD DRIVE
RIVERSIDE, CA 92509

ENVIROSTOR
CHMIRS
NPDES

S100220249
N/A

Relative:
Lower

Actual:
888 ft.

ENVIROSTOR:

Facility ID:	71002953
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress
Assembly:	60
Senate:	31
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.01506
Longitude:	-117.3787
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD982002503
Alias Type:	EPA Identification Number
Alias Name:	110000479633
Alias Type:	EPA (FRS #)
Alias Name:	71002953
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

CHMIRS:

OES Incident Number:	12-0651

SIERRA ALUMINUM CO. (Continued) **S100220249**

OES notification:	02/01/2012
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Drainage swale
Spill Site:	Industrial Plant
Cleanup By:	None
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1200
Year:	2012
Agency:	Sierra Aluminium Company
Incident Date:	1/31/2012
Admin Agency:	Riverside City Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Drainage swale
E Date:	Not reported
Substance:	Cooling Tower Water
Quantity Released:	10,000
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported

SIERRA ALUMINUM CO. (Continued) **S100220249**

#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	RP states that a pump seal failed causing the release of cooling tower water to a drainage swale. The storm drain system would discharge into the Santa Ana River. However, the water has not been detected any further than 100' into the drainage swale. The estimated amount of the release is in excess of 10,000 gallons.
OES Incident Number:	012197
OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**04-AUG-90**
Property Use:	700
Agency Id Number:	33100
Agency Incident Number:	9031826
Time Notified:	2100
Time Completed:	2400
Surrounding Area:	700
Estimated Temperature:	76
Property Management:	P
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	0
Responding Agency Personel # Of Injuries:	0
Responding Agency Personel # Of Fatalities:	0
Others Number Of Decontaminated:	0
Others Number Of Injuries:	0
Others Number Of Fatalities:	0
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	JA TAYLOR FC 938
Report Date:	05-AUG-90
Facility Telephone:	714 247-0604
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	04-AUG-90

SIERRA ALUMINUM CO. (Continued) **S100220249**

Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	30-MAY-91
Substance:	Not reported
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	N
Description:	Not reported

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	210705
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I002351
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	3/31/1992
STATUS CODE NAME:	Active
STATUS DATE:	3/31/1992
PLACE SIZE:	5
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Naro S Kuch
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	951-781-7800
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	nkuch@sierraaluminum.com
OPERATOR NAME:	Sierra Aluminum Company
OPERATOR ADDRESS:	2345 Fleetwood Drive

SIERRA ALUMINUM CO. (Continued) **S100220249**

OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Naro S Kuch
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-781-7800
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	nkuch@sierraaluminium.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	951-934-4014
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Naro Kuch
CERTIFIER TITLE:	Environmental Manager
CERTIFICATION DATE:	03-JUN-15
PRIMARY SIC:	3354-Aluminum Extruded Products
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	210705
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I002351
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/31/1992
Expiration Date Of Regulatory Measure:	Not reported

SIERRA ALUMINUM CO. (Continued) **S100220249**

Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Sierra Aluminum Company
Discharge Address:	2345 Fleetwood Drive
Discharge City:	Riverside
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported

SIERRA ALUMINUM CO. (Continued) **S100220249**

CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BLOOMINGTON	S107736446	HIGH SCHOOL - CEDAR AVENUE	SANTA ANA AVENUE/CEDAR AVENUE	92316	ENVIROSTOR, SCH

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: EPA
Telephone: N/A
Last EDR Contact: 01/26/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: EPA
Telephone: N/A
Last EDR Contact: 01/26/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: EPA
Telephone: N/A
Last EDR Contact: 01/26/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/06/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/11/2016
Date Data Arrived at EDR: 01/22/2016
Date Made Active in Reports: 03/18/2016
Number of Days to Update: 56

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/19/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 01/11/2016
Date Data Arrived at EDR: 01/22/2016
Date Made Active in Reports: 03/18/2016
Number of Days to Update: 56

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/19/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/16/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/29/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/29/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/22/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/29/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 11/18/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 64

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/17/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41
Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27
Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22
Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27
Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9
Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/27/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 55
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 08/20/2015
Date Data Arrived at EDR: 10/30/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 111
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 34
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 08/20/2015
Date Data Arrived at EDR: 10/30/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 111
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 28
Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/27/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 34

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Semi-Annually

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/28/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/04/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/22/2015
Date Data Arrived at EDR: 12/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/21/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 53
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 11/23/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 58
Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/14/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/17/2015
Date Data Arrived at EDR: 12/04/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 76
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/01/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/17/2015
Date Data Arrived at EDR: 12/04/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 76

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/01/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 11/25/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 16

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 03/14/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 12/17/2015
Date Data Arrived at EDR: 12/22/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 03/11/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/08/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/02/2015
Number of Days to Update: 68

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/30/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/25/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 20

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/27/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 03/11/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54
Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/19/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/01/2015
Date Data Arrived at EDR: 09/03/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 61
Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 02/16/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88
Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/09/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6
Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/12/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14
Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 110
Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/24/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77
Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74
Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/08/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2015
Date Data Arrived at EDR: 08/26/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 69
Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35
Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/12/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/12/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31
Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/26/2015
Date Data Arrived at EDR: 07/10/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 95
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/13/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/11/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/29/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/07/2015
Date Data Arrived at EDR: 07/09/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 69
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/07/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/26/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 11/23/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 86

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/26/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/22/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/22/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2015
Date Data Arrived at EDR: 09/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 125

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/02/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/04/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/04/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/08/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/28/2015
Date Data Arrived at EDR: 12/29/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 23

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/29/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/10/2015
Date Data Arrived at EDR: 08/27/2015
Date Made Active in Reports: 10/01/2015
Number of Days to Update: 35

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/05/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 09/25/2015
Date Made Active in Reports: 11/05/2015
Number of Days to Update: 41
Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 59
Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40
Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 59
Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/16/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data
Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 10/14/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 58
Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Annually

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/23/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 58
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/24/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/11/2016
Date Data Arrived at EDR: 01/13/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 40
Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/13/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 53
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/10/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/08/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 11/18/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 64
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/17/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/08/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 03/01/2016
Number of Days to Update: 75
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 01/05/2016
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 38
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 07/23/2015
Date Data Arrived at EDR: 09/15/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 28
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/16/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/19/2016
Next Scheduled EDR Contact: 06/16/2016
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/23/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 86

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/24/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/20/2015
Date Data Arrived at EDR: 09/23/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 103

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/21/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/11/2016
Date Data Arrived at EDR: 01/12/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 41

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/11/2016
Date Data Arrived at EDR: 01/14/2016
Date Made Active in Reports: 03/01/2016
Number of Days to Update: 47

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List
Cupa Facility List

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 12/10/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 42

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 11/20/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 44

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 02/19/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 02/02/2016
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 18

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/28/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/08/2015
Date Data Arrived at EDR: 09/22/2015
Date Made Active in Reports: 10/14/2015
Number of Days to Update: 22

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 12/01/2015
Date Data Arrived at EDR: 12/04/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 48

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/22/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 03/07/2016
Number of Days to Update: 31

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/30/2015
Date Data Arrived at EDR: 12/03/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 49

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/05/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 45

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/04/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/02/2015
Date Data Arrived at EDR: 12/04/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 48

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 01/25/2016
Date Data Arrived at EDR: 01/27/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 26

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 05/19/2015
Date Data Arrived at EDR: 06/18/2015
Date Made Active in Reports: 07/22/2015
Number of Days to Update: 34

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/19/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 18

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 27

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/24/2014
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/04/2015
Number of Days to Update: 33
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/19/2015
Date Data Arrived at EDR: 10/20/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 30
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/20/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2015
Date Data Arrived at EDR: 07/27/2015
Date Made Active in Reports: 08/10/2015
Number of Days to Update: 14
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/15/2015
Date Data Arrived at EDR: 01/29/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 40
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 02/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 02/16/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/12/2016
Date Data Arrived at EDR: 01/15/2016
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 24
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 03/07/2016
Number of Days to Update: 84

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/05/2015
Date Data Arrived at EDR: 10/08/2015
Date Made Active in Reports: 10/15/2015
Number of Days to Update: 7

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/18/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 34

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 51

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/29/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 12/10/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 60

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/29/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23
Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/29/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 01/27/2016
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 18
Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/01/2015
Date Data Arrived at EDR: 11/17/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 65
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/09/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/03/2015
Date Data Arrived at EDR: 08/10/2015
Date Made Active in Reports: 09/11/2015
Number of Days to Update: 32
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/09/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/01/2015
Date Data Arrived at EDR: 11/11/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 36
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/10/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 12/11/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 41
Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/26/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 22
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/26/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 22
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 01/05/2016
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 38
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 01/05/2016
Date Made Active in Reports: 02/12/2016
Number of Days to Update: 38
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/18/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 52

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 03/03/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/18/2015
Date Data Arrived at EDR: 12/22/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 48
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/10/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 42
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/21/2016
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 10/14/2015
Date Data Arrived at EDR: 10/15/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 32
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/14/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 53
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/14/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 17

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/29/2016
Next Scheduled EDR Contact: 06/13/2016
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/17/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 59

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/08/2016
Next Scheduled EDR Contact: 05/23/2016
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List

CUPA facility listing.

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 18

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 12/10/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 42

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/22/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/14/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 12/14/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 56

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/14/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 01/11/2016
Date Data Arrived at EDR: 01/14/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 39

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/05/2016
Date Data Arrived at EDR: 01/07/2016
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 32

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 9

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/20/2016
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 10/29/2015
Date Data Arrived at EDR: 10/30/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 42

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 03/04/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 08/17/2015
Date Made Active in Reports: 09/03/2015
Number of Days to Update: 17

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/30/2015
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/14/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/28/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 22

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/25/2016
Next Scheduled EDR Contact: 05/09/2016
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/30/2015
Date Data Arrived at EDR: 12/17/2015
Date Made Active in Reports: 02/08/2016
Number of Days to Update: 53

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/17/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 10/19/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 23

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 02/01/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 02/22/2016
Number of Days to Update: 17

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 02/01/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/18/2016
Next Scheduled EDR Contact: 05/30/2016
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/12/2015
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 11/08/2015
Date Made Active in Reports: 12/09/2015
Number of Days to Update: 31

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/03/2016
Next Scheduled EDR Contact: 05/16/2016
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 03/07/2016
Next Scheduled EDR Contact: 06/06/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/14/2016
Next Scheduled EDR Contact: 06/27/2016
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

CRESTMORE SITE
1500 RUBIDOUX BOULEVARD
RIVERSIDE, CA 92509

TARGET PROPERTY COORDINATES

Latitude (North):	34.02651 - 34° 1' 35.44''
Longitude (West):	117.3846 - 117° 23' 4.56''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	464493.2
UTM Y (Meters):	3764967.5
Elevation:	937 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5619058 FONTANA, CA
Version Date:	2012
Northeast Map:	5620416 SAN BERNARDINO SOUTH, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

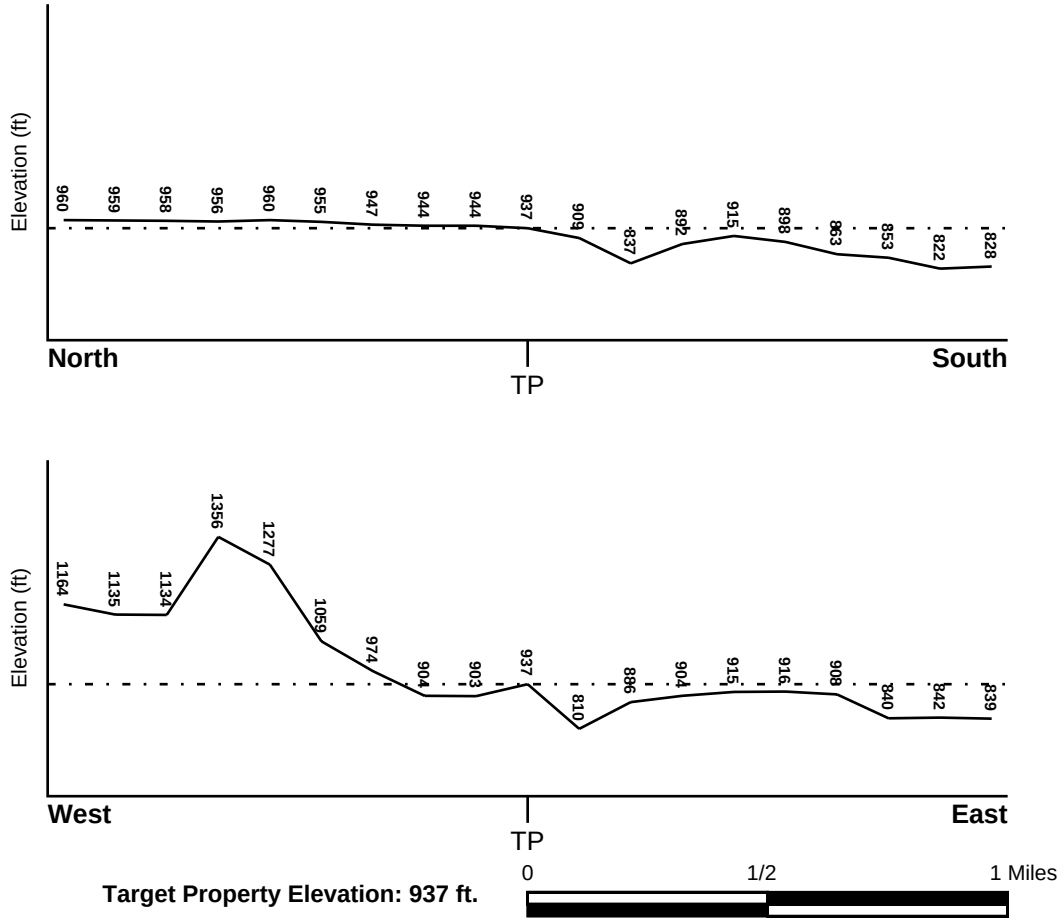
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
RIVERSIDE, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06065C - FEMA DFIRM Flood data

Additional Panels in search area: 06071C - FEMA DFIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
FONTANA	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Location Relative to TP:	1/4 - 1/2 Mile West
Site Name:	Riverside Cement Co Crestmore Plt
Site EPA ID Number:	CAD063844443
Groundwater Flow Direction:	SW ON A REGIONAL BASIS.
Measured Depth to Water:	not available, but a well 2,000 feet east of the site had a water level of 800 feet above mean sea level.
Hydraulic Connection:	Information is not available about the hydraulic connection between aquifer(s) underlying the site.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information is inferred in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
1	1/4 - 1/2 Mile West	Varies

For additional site information, refer to Physical Setting Source Map Findings.

* ©1996 Site--specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Paleozoic
System:	Pennsylvanian
Series:	Upper Paleozoic
Code:	uPze *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Eugeosynclinal Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 4569494.2s



SITE NAME:	Crestmore Site	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Boulevard Riverside CA 92509	CONTACT:	Jose Baron
LAT/LONG:	34.02651 / 117.3846	INQUIRY #:	4569494.2s
		DATE:	March 21, 2016 2:53 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: QUARRIES

Soil Surface Texture:
Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 2

Soil Component Name: DELHI

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
2	9 inches	48 inches	sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
3	48 inches	59 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1

Soil Map ID: 3

Soil Component Name: CIENEBA

Soil Surface Texture: sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 5.1
2	14 inches	22 inches	weathered bedrock	Not reported	Not reported	Max: 0.42 Min: 0	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
6	USGS40000139843	1/2 - 1 Mile SE
D12	USGS40000139838	1/2 - 1 Mile ESE
D13	USGS40000139841	1/2 - 1 Mile ESE
D14	USGS40000139840	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

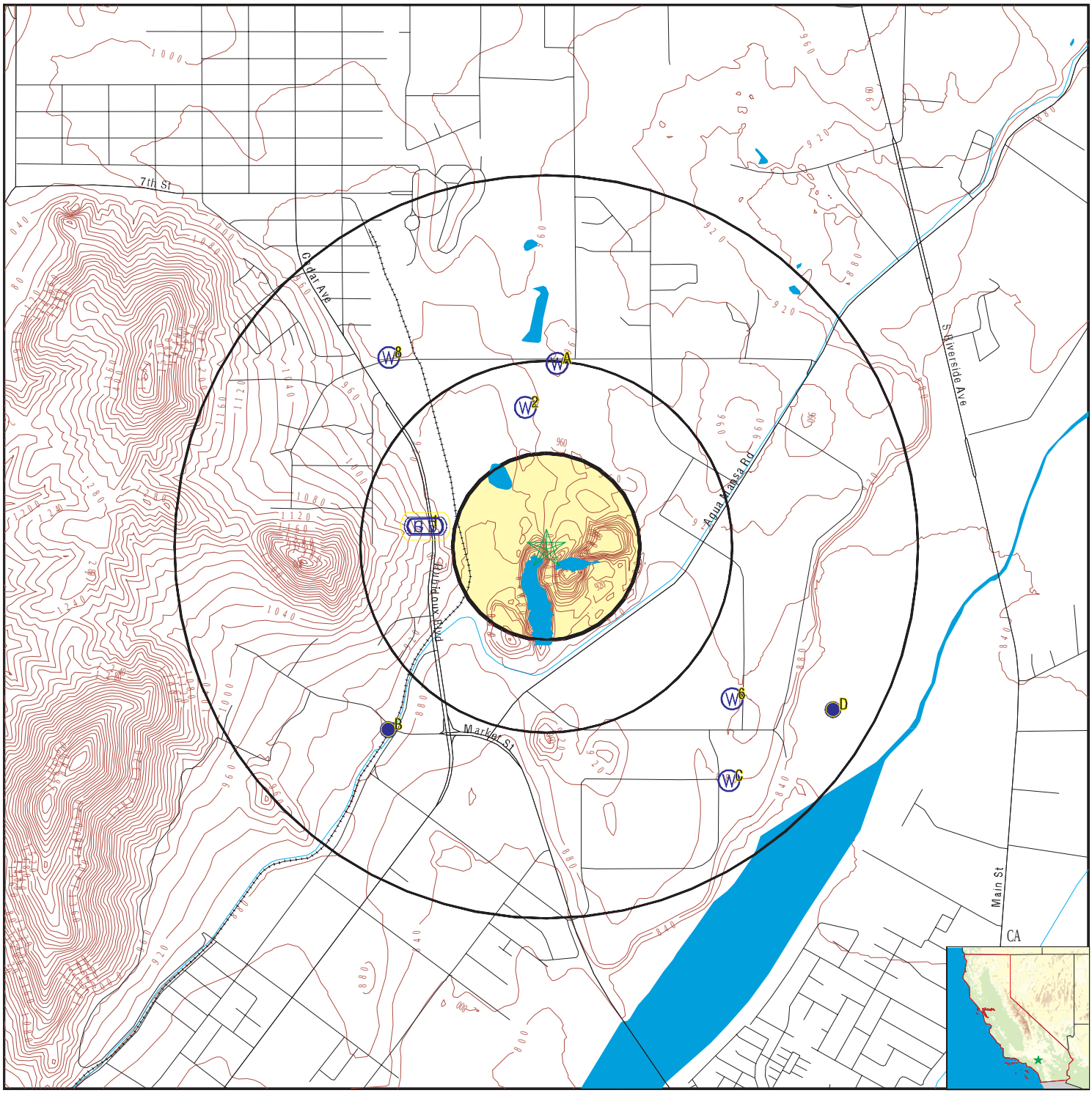
Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
2	2492	1/4 - 1/2 Mile North
A3	18724	1/4 - 1/2 Mile North
A4	CADW60000003294	1/2 - 1 Mile North
B7	2499	1/2 - 1 Mile SW
8	2493	1/2 - 1 Mile NW
C9	2504	1/2 - 1 Mile SE
C10	2503	1/2 - 1 Mile SE
D11	2487	1/2 - 1 Mile ESE

PHYSICAL SETTING SOURCE MAP - 4569494.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	Crestmore Site	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Boulevard Riverside CA 92509	CONTACT:	Jose Baron
LAT/LONG:	34.02651 / 117.3846	INQUIRY #:	4569494.2s
		DATE:	March 21, 2016 2:53 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
1 **West** **1/4 - 1/2 Mile** **Higher**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083301366T Varies Not Reported Not Reported 80 07/07/1995	**AQUIFLOW**	**50768**

2
North
1/4 - 1/2 Mile
Higher

CA WELLS **2492**

Water System Information:

Prime Station Code:	02S/05W-03B01 S	User ID:	33C
FRDS Number:	3301551001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340155.0 1172305.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01 DOMESTIC - MAIN		
System Number:	3301551		
System Name:	RIVERSIDE CEMENT CO		
Organization That Operates System:			
	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		
Sample Collected:	16-SEP-09	Findings:	4.98 PCI/L
Chemical:	GROSS ALPHA		

A3
North
1/4 - 1/2 Mile
Higher

CA WELLS **18724**

Water System Information:

Prime Station Code:	3610004-031	User ID:	TAN
FRDS Number:	3610004031	County:	San Beernardino
District Number:	13	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340200.0 1172300.0	Precision:	Undefined
Source Name:	WELL 41		
System Number:	3610004		
System Name:	WEST SAN BERNARDINO CWD		
Organization That Operates System:			
	PO BOX 920 RIALTO, CA 92376-0920		
Pop Served:	41454	Connections:	15052
Area Served:	RIALTO-BLOOMINGTON		
Sample Collected:	10-APR-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		

Sample Collected:	23-MAY-12	Findings:	1.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-JUN-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-JUN-12	Findings:	14. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-JUL-12	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-AUG-12	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-SEP-12	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	26-SEP-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	30-OCT-12	Findings:	0.6 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	28-NOV-12	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	13-DEC-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	13-DEC-12	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	30-JAN-13	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	22-FEB-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	21-MAR-13	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-MAR-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-APR-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	01-MAY-13	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	05-JUN-13	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-JUN-13	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	31-JUL-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	15-AUG-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	23-SEP-13	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	23-SEP-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-OCT-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-NOV-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	13-DEC-13	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	13-DEC-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	15-JAN-14	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-FEB-14	Findings:	. 0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	20-MAR-14	Findings:	. 18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-MAR-14	Findings:	. 1. NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-APR-14	Findings:	. 280. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	24-APR-14	Findings:	. 17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-APR-14	Findings:	. 0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	21-MAY-14	Findings:	. 17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-MAY-14	Findings:	. 0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04-JUN-14	Findings:	. 20. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	04-JUN-14	Findings:	. 410. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	04-JUN-14	Findings:	. 7.7
Chemical:	PH, LABORATORY		
Sample Collected:	04-JUN-14	Findings:	. 160. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	04-JUN-14	Findings:	. 190. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	04-JUN-14	Findings:	. 170. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	04-JUN-14	Findings:	. 51. MG/L
Chemical:	CALCIUM		
Sample Collected:	04-JUN-14	Findings:	. 11. MG/L
Chemical:	MAGNESIUM		

Sample Collected:	04-JUN-14	Findings:	. 15. MG/L
Chemical:	SODIUM		
Sample Collected:	04-JUN-14	Findings:	. 1.8 MG/L
Chemical:	POTASSIUM		
Sample Collected:	04-JUN-14	Findings:	. 11. MG/L
Chemical:	CHLORIDE		
Sample Collected:	04-JUN-14	Findings:	. 0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	04-JUN-14	Findings:	. 2.1 UG/L
Chemical:	ARSENIC		
Sample Collected:	04-JUN-14	Findings:	. 6.2 UG/L
Chemical:	VANADIUM		
Sample Collected:	04-JUN-14	Findings:	. 250. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	04-JUN-14	Findings:	. 0.84
Chemical:	LANGELIER INDEX @ 60 C		
Sample Collected:	04-JUN-14	Findings:	. 0.23
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	04-JUN-14	Findings:	. 16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-JUN-14	Findings:	. 0.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04-JUN-14	Findings:	. 12.04
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	04-JUN-14	Findings:	. 3700. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	17-JUL-14	Findings:	. 270. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	17-JUL-14	Findings:	. 19. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	17-JUL-14	Findings:	. 0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	08-AUG-14	Findings:	. 18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-AUG-14	Findings:	. 0.8 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	25-SEP-14	Findings:	. 2.7 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	25-SEP-14	Findings:	. 17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-DEC-14	Findings:	. 3.1 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	08-DEC-14	Findings:	. 19. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	08-DEC-14	Findings:	. 0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-JAN-15	Findings:	. 18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	29-JAN-15	Findings:	. 0.6 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-FEB-15	Findings:	. 18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-FEB-15	Findings:	. 0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	17-MAR-15	Findings:	. 2.6 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	17-MAR-15	Findings:	. 1.5 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	17-MAR-15	Findings:	. 1.4 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	17-MAR-15	Findings:	. 17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	17-MAR-15	Findings:	. 0.61 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	17-MAR-15	Findings:	. 1.4 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	17-MAR-15	Findings:	. 0.88 PCI/L
Chemical:	URANIUM MDA95		
Sample Collected:	17-MAR-15	Findings:	. 0.643 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	17-MAR-15	Findings:	. 0.2 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	17-MAR-15	Findings:	. 9.2e-002 PCI/L
Chemical:	RA-226 OR TOTAL RA BY 903.0 C.E.		
Sample Collected:	17-MAR-15	Findings:	. 0.47 PCI/L
Chemical:	RADIUM, TOTAL, MDA95-NTNC ONLY, BY 903.0		
Sample Collected:	22-APR-15	Findings:	. 18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	22-APR-15	Findings:	. 0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	20-MAY-15	Findings:	. 17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-MAY-15	Findings:	. 0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-JAN-11	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	23-FEB-11	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		

Sample Collected:	23-MAR-11	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-MAR-11	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	20-APR-11	Findings:	0.7 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-MAY-11	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-JUN-11	Findings:	20. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	29-JUN-11	Findings:	380. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	29-JUN-11	Findings:	8.
Chemical:	PH, LABORATORY		
Sample Collected:	29-JUN-11	Findings:	150. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	29-JUN-11	Findings:	180. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	29-JUN-11	Findings:	160. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	29-JUN-11	Findings:	52. MG/L
Chemical:	CALCIUM		
Sample Collected:	29-JUN-11	Findings:	8.8 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	29-JUN-11	Findings:	14. MG/L
Chemical:	SODIUM		
Sample Collected:	29-JUN-11	Findings:	1.6 MG/L
Chemical:	POTASSIUM		
Sample Collected:	29-JUN-11	Findings:	8.6 MG/L
Chemical:	CHLORIDE		
Sample Collected:	29-JUN-11	Findings:	0.35 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	29-JUN-11	Findings:	8.1 UG/L
Chemical:	VANADIUM		
Sample Collected:	29-JUN-11	Findings:	260. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	29-JUN-11	Findings:	1.1
Chemical:	LANGELIER INDEX @ 60 C		
Sample Collected:	29-JUN-11	Findings:	0.49
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	29-JUN-11	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	29-JUN-11	Findings:	0.1 NTU
Chemical:	TURBIDITY, LABORATORY		

Sample Collected:	29-JUN-11	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	29-JUN-11	Findings:	3300. UG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	28-JUL-11	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-AUG-11	Findings:	2.6 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	21-SEP-11	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-SEP-11	Findings:	4.8 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	31-OCT-11	Findings:	0.7 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-NOV-11	Findings:	1.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	15-DEC-11	Findings:	5. UNITS
Chemical:	COLOR		
Sample Collected:	15-DEC-11	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	15-DEC-11	Findings:	1.9 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-JAN-12	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-MAR-12	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-MAR-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		

A4
North
1/2 - 1 Mile
Higher

CA WELLS **CADW60000003294**

Objectid:	3294
Latitude:	34.034
Longitude:	-117.384
Site code:	340340N1173840W001
State well numbe:	03S03W03A001S
Local well name:	'El Rivino'
Well use id:	1
Well use descrip:	Observation
County id:	33
County name:	Riverside
Basin code:	'8-2.03'
Basin desc:	Riverside-Arlington
Dwr region id:	80238
Dwr region:	Southern Region Office
Site id:	CADW60000003294

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

B5
SW
1/2 - 1 Mile
Lower

Site ID:	083300480T
Groundwater Flow:	Not Reported
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	50
Date:	09/18/1991

AQUIFLOW **67279**

6
SE
1/2 - 1 Mile
Lower

FED USGS **USGS40000139843**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340114117223001		
Monloc name:	002S005W02P001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0205696
Longitude:	-117.3758787	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	100
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

B7
SW
1/2 - 1 Mile
Lower

CA WELLS **2499**

Water System Information:

Prime Station Code:	02S/05W-10C01 S	User ID:	33C
FRDS Number:	3301109001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340110.0 1172329.0	Precision:	100 Feet (one Second)
Source Name:	WELL 02 INDUSTRIAL		

System Number: 3301109
System Name: CERTAINTEED PRODUCTS
Organization That Operates System:
Not Reported
Pop Served: Unknown, Small System
Connections: Unknown, Small System
Area Served: Not Reported

8
NW
1/2 - 1 Mile
Higher

CA WELLS **2493**

Water System Information:

Prime Station Code:	02S/05W-03B02 S	User ID:	33C
FRDS Number:	3301173001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340202.0 1172328.0	Precision:	100 Feet (one Second)
Source Name:	WELL 01		
System Number:	3301173		
System Name:	CRESTMORE HEIGHTS MWC		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

C9
SE
1/2 - 1 Mile
Lower

CA WELLS **2504**

Water System Information:

Prime Station Code:	02S/05W-11C03 S	User ID:	WAT
FRDS Number:	3310044006	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340103.0 1172230.0	Precision:	100 Feet (one Second)
Source Name:	WELL 06 - NEW SKOTTY		
System Number:	3310044		
System Name:	Rubidoux Community SD		
Organization That Operates System:	P.O. Box 3098 Rubidoux, CA 92519		
Pop Served:	25000	Connections:	6554
Area Served:	RUBIDOUX		
Sample Collected:	17-MAY-11	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	17-MAY-11	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-MAY-11	Findings:	9.2 UG/L
Chemical:	PERCHLORATE		

Sample Collected:	01-JUN-11	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUN-11	Findings:	60. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-JUN-11	Findings:	0.645 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	01-JUN-11	Findings:	0.378 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	01-JUN-11	Findings:	3.19 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	01-JUN-11	Findings:	1.21 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	01-JUN-11	Findings:	4.01 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	01-JUN-11	Findings:	0.81 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	05-JUL-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	05-JUL-11	Findings:	63. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-JUL-11	Findings:	5.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-AUG-11	Findings:	720. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03-AUG-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03-AUG-11	Findings:	210. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	03-AUG-11	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03-AUG-11	Findings:	290. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	03-AUG-11	Findings:	89. MG/L
Chemical:	CALCIUM		
Sample Collected:	03-AUG-11	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03-AUG-11	Findings:	33. MG/L
Chemical:	SODIUM		
Sample Collected:	03-AUG-11	Findings:	3.2 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03-AUG-11	Findings:	19. MG/L
Chemical:	CHLORIDE		
Sample Collected:	03-AUG-11	Findings:	0.2 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		

Sample Collected:	03-AUG-11	Findings:	440. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03-AUG-11	Findings:	0.4
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	03-AUG-11	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-AUG-11	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	03-AUG-11	Findings:	8.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	06-SEP-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	06-SEP-11	Findings:	60. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-SEP-11	Findings:	6.3 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-OCT-11	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	11-OCT-11	Findings:	60. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11-OCT-11	Findings:	7.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-DEC-11	Findings:	4.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-DEC-11	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	12-DEC-11	Findings:	60. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	16-MAY-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	16-MAY-12	Findings:	59. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	16-MAY-12	Findings:	8.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	07-JUN-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	07-JUN-12	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-JUN-12	Findings:	6.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	13-JUN-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	13-JUN-12	Findings:	61. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	13-JUN-12	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-JUL-12	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	11-JUL-12	Findings:	59. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11-JUL-12	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	07-AUG-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	07-AUG-12	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-AUG-12	Findings:	5.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	21-AUG-12	Findings:	720. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	21-AUG-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	21-AUG-12	Findings:	210. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	21-AUG-12	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	21-AUG-12	Findings:	290. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	21-AUG-12	Findings:	90. MG/L
Chemical:	CALCIUM		
Sample Collected:	21-AUG-12	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	21-AUG-12	Findings:	32. MG/L
Chemical:	SODIUM		
Sample Collected:	21-AUG-12	Findings:	3.2 MG/L
Chemical:	POTASSIUM		
Sample Collected:	21-AUG-12	Findings:	25. MG/L
Chemical:	CHLORIDE		
Sample Collected:	21-AUG-12	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	21-AUG-12	Findings:	460. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	21-AUG-12	Findings:	0.5
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	21-AUG-12	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-AUG-12	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		

Sample Collected:	21-AUG-12	Findings:	7.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	24-SEP-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	24-SEP-12	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-SEP-12	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-DEC-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	11-DEC-12	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11-DEC-12	Findings:	6.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	23-MAY-13	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	23-MAY-13	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-MAY-13	Findings:	6. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	21-JUN-13	Findings:	7.8
Chemical:	PH, LABORATORY		
Sample Collected:	21-JUN-13	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-JUN-13	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	17-JUL-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	17-JUL-13	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	17-JUL-13	Findings:	5.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	06-AUG-13	Findings:	740. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06-AUG-13	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	06-AUG-13	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	06-AUG-13	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06-AUG-13	Findings:	310. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	06-AUG-13	Findings:	97. MG/L
Chemical:	CALCIUM		

Sample Collected:	06-AUG-13	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06-AUG-13	Findings:	34. MG/L
Chemical:	SODIUM		
Sample Collected:	06-AUG-13	Findings:	3.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06-AUG-13	Findings:	29. MG/L
Chemical:	CHLORIDE		
Sample Collected:	06-AUG-13	Findings:	0.4 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06-AUG-13	Findings:	510. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06-AUG-13	Findings:	0.4
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	06-AUG-13	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-AUG-13	Findings:	12.2
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	06-AUG-13	Findings:	6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	13-MAY-14	Findings:	. 7.7
Chemical:	PH, LABORATORY		
Sample Collected:	13-MAY-14	Findings:	. 55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	15-MAY-14	Findings:	. 7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	18-JUN-14	Findings:	. 7.5
Chemical:	PH, LABORATORY		
Sample Collected:	18-JUN-14	Findings:	. 54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-JUN-14	Findings:	. 6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-JUL-14	Findings:	. 7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-AUG-14	Findings:	. 720. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	05-AUG-14	Findings:	. 7.5
Chemical:	PH, LABORATORY		
Sample Collected:	05-AUG-14	Findings:	. 200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	05-AUG-14	Findings:	. 240. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	05-AUG-14	Findings:	. 310. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		

Sample Collected:	05-AUG-14	Findings:	. 95. MG/L
Chemical:	CALCIUM		
Sample Collected:	05-AUG-14	Findings:	. 16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	05-AUG-14	Findings:	. 32. MG/L
Chemical:	SODIUM		
Sample Collected:	05-AUG-14	Findings:	. 3. MG/L
Chemical:	POTASSIUM		
Sample Collected:	05-AUG-14	Findings:	. 25. MG/L
Chemical:	CHLORIDE		
Sample Collected:	05-AUG-14	Findings:	. 0.2 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	05-AUG-14	Findings:	. 4.7 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	05-AUG-14	Findings:	. 470. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	05-AUG-14	Findings:	. 0.2
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	05-AUG-14	Findings:	. 49. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-AUG-14	Findings:	. 12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	05-AUG-14	Findings:	. 6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-SEP-14	Findings:	. 7.6
Chemical:	PH, LABORATORY		
Sample Collected:	12-SEP-14	Findings:	. 55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-SEP-14	Findings:	. 6.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-OCT-14	Findings:	. 7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-OCT-14	Findings:	. 56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-14	Findings:	. 6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	09-OCT-14	Findings:	. 7.7
Chemical:	PH, LABORATORY		
Sample Collected:	09-OCT-14	Findings:	. 55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09-OCT-14	Findings:	. 6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	29-DEC-14	Findings:	. 7.9
Chemical:	PH, LABORATORY		

Sample Collected:	29-DEC-14	Findings:	. 56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-JAN-15	Findings:	. 7.6
Chemical:	PH, LABORATORY		
Sample Collected:	06-JAN-15	Findings:	. 53. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-JAN-15	Findings:	. 6.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-FEB-15	Findings:	. 7.6
Chemical:	PH, LABORATORY		
Sample Collected:	02-FEB-15	Findings:	. 53. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02-FEB-15	Findings:	. 7. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-MAR-15	Findings:	. 7.6
Chemical:	PH, LABORATORY		
Sample Collected:	05-MAR-15	Findings:	. 52. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-MAR-15	Findings:	. 6.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	24-MAR-15	Findings:	. 5.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-APR-15	Findings:	. 7.5
Chemical:	PH, LABORATORY		
Sample Collected:	01-APR-15	Findings:	. 48. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-APR-15	Findings:	. 4.1 UG/L
Chemical:	PERCHLORATE		

C10
SE
1/2 - 1 Mile
Lower

CA WELLS **2503**

Water System Information:

Prime Station Code:	02S/05W-11C02 S	User ID:	WAT
FRDS Number:	3310044004	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340102.0 1172231.0	Precision:	100 Feet (one Second)
Source Name:	WELL 04 - OLD SKOTTY		
System Number:	3310044		
System Name:	Rubidoux Community SD		
Organization That Operates System:			
	P.O. Box 3098		
	Rubidoux, CA 92519		
Pop Served:	25000	Connections:	6554
Area Served:	RUBIDOUX		

Sample Collected:	04-MAY-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	04-MAY-11	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-MAY-11	Findings:	8.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	18-MAY-11	Findings:	7.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-JUN-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUN-11	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-JUN-11	Findings:	0.473 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	01-JUN-11	Findings:	0.295 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	01-JUN-11	Findings:	4.47 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	01-JUN-11	Findings:	1.37 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	01-JUN-11	Findings:	3.62 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	01-JUN-11	Findings:	0.77 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	05-JUL-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	05-JUL-11	Findings:	59. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-JUL-11	Findings:	6.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-AUG-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-AUG-11	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-AUG-11	Findings:	7.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-AUG-11	Findings:	680. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03-AUG-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03-AUG-11	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	03-AUG-11	Findings:	240. MG/L
Chemical:	BICARBONATE ALKALINITY		

Sample Collected:	03-AUG-11	Findings:	270. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	03-AUG-11	Findings:	85. MG/L
Chemical:	CALCIUM		
Sample Collected:	03-AUG-11	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03-AUG-11	Findings:	30. MG/L
Chemical:	SODIUM		
Sample Collected:	03-AUG-11	Findings:	3. MG/L
Chemical:	POTASSIUM		
Sample Collected:	03-AUG-11	Findings:	16. MG/L
Chemical:	CHLORIDE		
Sample Collected:	03-AUG-11	Findings:	0.2 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03-AUG-11	Findings:	380. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03-AUG-11	Findings:	0.36
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	03-AUG-11	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-AUG-11	Findings:	12.2
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	03-AUG-11	Findings:	7.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-SEP-11	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	01-SEP-11	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-SEP-11	Findings:	7.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	06-SEP-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	06-SEP-11	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-SEP-11	Findings:	6.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-OCT-11	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	11-OCT-11	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11-OCT-11	Findings:	6.3 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	14-DEC-11	Findings:	7.6
Chemical:	PH, LABORATORY		

Sample Collected:	14-DEC-11	Findings:	62. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	14-DEC-11	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	04-APR-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	04-APR-12	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-MAY-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	08-MAY-12	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-JUN-12	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUN-12	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-JUN-12	Findings:	8.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-JUL-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03-JUL-12	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-JUL-12	Findings:	7.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-AUG-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-AUG-12	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-AUG-12	Findings:	8.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	21-AUG-12	Findings:	690. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	21-AUG-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	21-AUG-12	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	21-AUG-12	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	21-AUG-12	Findings:	280. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	21-AUG-12	Findings:	87. MG/L
Chemical:	CALCIUM		
Sample Collected:	21-AUG-12	Findings:	15. MG/L
Chemical:	MAGNESIUM		

Sample Collected:	21-AUG-12	Findings:	31. MG/L
Chemical:	SODIUM		
Sample Collected:	21-AUG-12	Findings:	2.9 MG/L
Chemical:	POTASSIUM		
Sample Collected:	21-AUG-12	Findings:	18. MG/L
Chemical:	CHLORIDE		
Sample Collected:	21-AUG-12	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	21-AUG-12	Findings:	430. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	21-AUG-12	Findings:	0.47
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	21-AUG-12	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-AUG-12	Findings:	12.2
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	21-AUG-12	Findings:	8.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	04-SEP-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	04-SEP-12	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-SEP-12	Findings:	7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-OCT-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-OCT-12	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-12	Findings:	6. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-DEC-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	11-DEC-12	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11-DEC-12	Findings:	6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	25-APR-13	Findings:	8.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-MAY-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-MAY-13	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-MAY-13	Findings:	7.6
Chemical:	PH, LABORATORY		

Sample Collected:	23-MAY-13	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-MAY-13	Findings:	6.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-JUN-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	05-JUN-13	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-JUN-13	Findings:	7.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-JUL-13	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	03-JUL-13	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-JUL-13	Findings:	5. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-AUG-13	Findings:	730. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	01-AUG-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-AUG-13	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	01-AUG-13	Findings:	240. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	01-AUG-13	Findings:	300. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	01-AUG-13	Findings:	94. MG/L
Chemical:	CALCIUM		
Sample Collected:	01-AUG-13	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	01-AUG-13	Findings:	33. MG/L
Chemical:	SODIUM		
Sample Collected:	01-AUG-13	Findings:	3.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	01-AUG-13	Findings:	23. MG/L
Chemical:	CHLORIDE		
Sample Collected:	01-AUG-13	Findings:	0.4 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	01-AUG-13	Findings:	460. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	01-AUG-13	Findings:	0.24
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	01-AUG-13	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	01-AUG-13	Findings:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	01-AUG-13	Findings:	7.3 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	06-AUG-13	Findings:	7.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	20-AUG-13	Findings:	7.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	04-SEP-13	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	04-SEP-13	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-SEP-13	Findings:	7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-OCT-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-OCT-13	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-13	Findings:	8.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	14-MAY-14	Findings:	. 7.7
Chemical:	PH, LABORATORY		
Sample Collected:	14-MAY-14	Findings:	. 57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	15-MAY-14	Findings:	. 7.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-JUN-14	Findings:	. 7.5
Chemical:	PH, LABORATORY		
Sample Collected:	11-JUN-14	Findings:	. 56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-JUN-14	Findings:	. 7.6
Chemical:	PH, LABORATORY		
Sample Collected:	18-JUN-14	Findings:	. 55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-JUN-14	Findings:	. 7.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-JUL-14	Findings:	. 7.5
Chemical:	PH, LABORATORY		
Sample Collected:	02-JUL-14	Findings:	. 450. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	02-JUL-14	Findings:	. 55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-JUL-14	Findings:	. 8. UG/L
Chemical:	PERCHLORATE		

Sample Collected:	05-AUG-14	Findings:	. 700. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	05-AUG-14	Findings:	. 7.5
Chemical:	PH, LABORATORY		
Sample Collected:	05-AUG-14	Findings:	. 200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	05-AUG-14	Findings:	. 240. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	05-AUG-14	Findings:	. 300. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	05-AUG-14	Findings:	. 92. MG/L
Chemical:	CALCIUM		
Sample Collected:	05-AUG-14	Findings:	. 16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	05-AUG-14	Findings:	. 31. MG/L
Chemical:	SODIUM		
Sample Collected:	05-AUG-14	Findings:	. 3. MG/L
Chemical:	POTASSIUM		
Sample Collected:	05-AUG-14	Findings:	. 23. MG/L
Chemical:	CHLORIDE		
Sample Collected:	05-AUG-14	Findings:	. 0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	05-AUG-14	Findings:	. 4. UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	05-AUG-14	Findings:	. 500. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	05-AUG-14	Findings:	. 0.48
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	05-AUG-14	Findings:	. 50. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-AUG-14	Findings:	. 12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	05-AUG-14	Findings:	. 6.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-SEP-14	Findings:	. 7.8
Chemical:	PH, LABORATORY		
Sample Collected:	12-SEP-14	Findings:	. 57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-SEP-14	Findings:	. 6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	09-OCT-14	Findings:	. 7.7
Chemical:	PH, LABORATORY		
Sample Collected:	09-OCT-14	Findings:	. 56. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	09-OCT-14	Findings:	. 7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	29-DEC-14	Findings:	. 7.7
Chemical:	PH, LABORATORY		
Sample Collected:	29-DEC-14	Findings:	. 59. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-JAN-15	Findings:	. 7.6
Chemical:	PH, LABORATORY		
Sample Collected:	07-JAN-15	Findings:	. 58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-JAN-15	Findings:	. 8.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-FEB-15	Findings:	. 7.5
Chemical:	PH, LABORATORY		
Sample Collected:	02-FEB-15	Findings:	. 56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02-FEB-15	Findings:	. 4.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-MAR-15	Findings:	. 7.4
Chemical:	PH, LABORATORY		
Sample Collected:	02-MAR-15	Findings:	. 56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02-MAR-15	Findings:	. 6.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	24-MAR-15	Findings:	. 5. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-APR-15	Findings:	. 7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-APR-15	Findings:	. 53. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-APR-15	Findings:	. 6. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-MAY-15	Findings:	. 7.5
Chemical:	PH, LABORATORY		
Sample Collected:	01-MAY-15	Findings:	. 55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-MAY-15	Findings:	. 5.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-JUN-15	Findings:	. 7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03-JUN-15	Findings:	. 58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-JUN-15	Findings:	. 6.1 UG/L
Chemical:	PERCHLORATE		

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

D11
ESE
1/2 - 1 Mile
Lower

CA WELLS **2487**

Water System Information:

Prime Station Code:	02S/05W-02Q07 S	User ID:	WAT
FRDS Number:	3310031062	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Agricultural/Irrigation Well
Source Lat/Long:	340113.6 1172215.3	Precision:	10 Feet (1/10 Second)
Source Name:	JURUPA WELL 06 - AGRICULTURAL		
System Number:	3310031		
System Name:	Riverside, City of		
Organization That Operates System:			
	3900 MAIN STREET		
	RIVERSIDE, CA 92522		
Pop Served:	245000	Connections:	58586
Area Served:	RIVERSIDE		

D12
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000139838**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340111117221501		
Monloc name:	002S005W02Q007S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0197364
Longitude:	-117.3717119	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	482
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

D13
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000139841**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340113117221102		
Monloc name:	002S005W02R002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0202919
Longitude:	-117.3706007	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

D14
ESE **FED USGS** **USGS40000139840**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340113117221101		
Monloc name:	002S005W02R001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0202919
Longitude:	-117.3706007	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92509	12	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 92509

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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AMCP - Northwestern Parcels
1500 Rubidoux Blvd
Riverside, CA 92509

Inquiry Number: 4878892.2s
March 14, 2017

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	108
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-6
Physical Setting Source Map	A-13
Physical Setting Source Map Findings	A-15
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

COORDINATES

Latitude (North):	34.0324070 - 34° 1' 56.66''
Longitude (West):	117.3911780 - 117° 23' 28.24''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	463888.4
UTM Y (Meters):	3765623.8
Elevation:	927 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5619058 FONTANA, CA
Version Date:	2012
Northeast Map:	5620416 SAN BERNARDINO SOUTH, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD	AST		TP
A2	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD	SWEEPS UST, CA FID UST		TP
A3	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD	HAZNET		TP
A4	TXI RIVERSIDE CEMENT	1500 RUBIDOUX BOULEV	FINDS, ECHO		TP
A5	RIVERSIDE CEMENT CO	1500 RUBIDOUX BLVD	ENVIROSTOR, LUST, WMUDS/SWAT, LDS, EMI, HIST...		TP
A6	PANTHER IRON COMPANY	1500 RUBIDOUX BLVD	HAZNET		TP
A7	RIVERSIDE CEMENT CO	1500 RUBIDOUX BL	HIST UST, EMI		TP
A8	RIVERSIDE CEMENT CO	1500 RUBIDOUX BLVD	FINDS		TP
A9	RIVERSIDE CEMENT CRE	1500 RUBIDOUX BLVD.	AST		TP
A10	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD	RGA LUST		TP
A11	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEV	RGA LUST		TP
A12	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD.	TSCA		TP
A13	RIVERSIDE CEMENT/TXI	1500 RUBEDOUX BLVD	HAZNET		TP
A14	RIVERSIDE CEMENT CO	1500 RUBIDOUX BLVD	SEMS, ICIS, US AIRS		TP
15	RIVERSIDE CEMENT CO		US MINES	Higher	128, 0.024, NNE
B16	ADVANCE COLLISION	12073 CEDAR AVE	RCRA-SQG, FINDS, HAZNET, San Bern. Co. Permit,...	Higher	263, 0.050, NW
B17		12073 CEDAR AVE	EDR Hist Auto	Higher	263, 0.050, NW
B18	PRESTIGE PAINT AND C	12073 CEDAR AVE	San Bern. Co. Permit	Higher	263, 0.050, NW
C19	CERTAINTEED, RIVERSI	2100 AVALON ST	HIST Cal-Sites	Lower	3726, 0.706, South
C20	CERTAINTEED CORP	2100 AVALON ST.	RCRA-SQG, RESPONSE, ENVIROSTOR, LUST, HIST UST,...	Lower	3726, 0.706, South
C21	CERTAINTEED CORPORAT	2100 AVALON STREET	HAZNET, HWP	Lower	3726, 0.706, South

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	AST	N/A
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	SWEEPS UST Status: A Tank Status: A Comp Number: 65436 CA FID UST Facility Id: 33003042 Status: A	N/A
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	HAZNET GEPAID: CAD063844443	N/A
TXI RIVERSIDE CEMENT 1500 RUBIDOUX BOULEV RIVERSIDE, CA 92509	FINDS Registry ID:: 110001199587 ECHO	N/A
RIVERSIDE CEMENT CO 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	ENVIROSTOR Facility Id: 33140002 Status: Refer: RWQCB LUST Database: LUST REG 8, Date of Government Version: 02/14/2005 Database: LUST, Date of Government Version: 12/12/2016 Database: RIVERSIDE CO. LUST, Date of Government Version: 01/19/2017 Status: Completed - Case Closed Facility Status: Case Closed Facility Id: 89210 Global Id: T0606500166 Facility Status: 9 Global ID: T0606500166 WMUDS/SWAT LDS Global Id: L10003541579 Status: Completed - Case Closed EMI Facility Id: 800182 HIST CORTESE Reg Id: 083301366T NPDES	N/A

	Facility Status: Terminated WDS Facility Status: A Facility Id: 8 33I002053	
PANTHER IRON COMPANY 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	HAZNET GEPAID: CAC002584294	N/A
RIVERSIDE CEMENT CO 1500 RUBIDOUX BL RIVERSIDE, CA 92509	HIST UST Facility Id: 00000065436 EMI Facility Id: 800182	N/A
RIVERSIDE CEMENT CO 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	FINDS Registry ID:: 110041108565	N/A
RIVERSIDE CEMENT CRE 1500 RUBIDOUX BLVD. RIVERSIDE, CA	AST	N/A
RIVERSIDE CEMENT 1500 RUBIDOUX BLVD RIVERSIDE, CA	RGA LUST	N/A
RIVERSIDE CEMENT 1500 RUBIDOUX BOULEV RIVERSIDE, CA	RGA LUST	N/A
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD. RIVERSIDE, CA 92509	TSCA	N/A
RIVERSIDE CEMENT/TXI 1500 RUBEDOUX BLVD RIVERSIDE, CA 92502	HAZNET GEPAID: CAC001472088	N/A
RIVERSIDE CEMENT CO 1500 RUBIDOUX BLVD RIVERSIDE, CA 92502	SEMS Site ID: 0901505 EPA Id: CAD063844443 ICIS FRS ID:: 110001199587 US AIRS Database: US AIRS (AFS), Date of Government Version: 10/12/2016	CAD063844443

EXECUTIVE SUMMARY

EPA plant ID:: 110001199587

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

EXECUTIVE SUMMARY

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land
SLIC ---------- Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
UST ---------- Active UST Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP ---------- Voluntary Cleanup Program Properties
INDIAN VCP ---------- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY ---------- Recycler Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---------- Open Dump Inventory
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register
SCH ---------- School Property Evaluation Program
CDL ---------- Clandestine Drug Labs
Toxic Pits ---------- Toxic Pits Cleanup Act Sites
US CDL ---------- National Clandestine Laboratory Register

Local Land Records

LIENS ---------- Environmental Liens Listing
LIENS 2 ---------- CERCLA Lien Information
DEED ---------- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---------- Hazardous Materials Information Reporting System

CHMIRS California Hazardous Material Incident Report System
MCS Military Cleanup Sites Listing
SPILLS 90 SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR RCRA - Non Generators / No Longer Regulated
FUDS Formerly Used Defense Sites
DOD Department of Defense Sites
SCRD DRYCLEANERS State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR Financial Assurance Information
EPA WATCH LIST EPA WATCH LIST
2020 COR ACTION 2020 Corrective Action Program List
TRIS Toxic Chemical Release Inventory System
SSTS Section 7 Tracking Systems
ROD Records Of Decision
RMP Risk Management Plans
RAATS RCRA Administrative Action Tracking System
PRP Potentially Responsible Parties
PADS PCB Activity Database System
FTTS FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS Material Licensing Tracking System
COAL ASH DOE Steam-Electric Plant Operation Data
COAL ASH EPA Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER PCB Transformer Registration Database
RADINFO Radiation Information Database
HIST FTTS FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS Incident and Accident Data
CONSENT Superfund (CERCLA) Consent Decrees
INDIAN RESERV Indian Reservations
FUSRAP Formerly Utilized Sites Remedial Action Program
UMTRA Uranium Mill Tailings Sites
LEAD SMELTERS Lead Smelter Sites
DOCKET HWC Hazardous Waste Compliance Docket Listing
UXO Unexploded Ordnance Sites
CA BOND EXP. PLAN Bond Expenditure Plan
Cortese "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings CUPA Resources List
DRYCLEANERS Cleaner Facilities
ENF Enforcement Action Listing
Financial Assurance Financial Assurance Information Listing
ICE ICE
HWT Registered Hazardous Waste Transporter Database
MINES Mines Site Location Listing
MWMP Medical Waste Management Program Listing
PEST LIC Pesticide Regulation Licenses Listing
PROC Certified Processors Database
Notify 65 Proposition 65 Records
UIC UIC Listing
WASTEWATER PITS Oil Wastewater Pits Listing
WIP Well Investigation Program Case List
FUELS PROGRAM EPA Fuels Program Registered Listing
ABANDONED MINES Abandoned Mines

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP EDR Proprietary Manufactured Gas Plants

EXECUTIVE SUMMARY

EDR Hist Cleaner..... EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF..... Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/12/2016 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ADVANCE COLLISION	***12073 CEDAR AVE***	***NW 0 - 1/8 (0.050 mi.)***	***B16***	***84***

State- and tribal - equivalent NPL

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED CORP	***2100 AVALON ST.***	***S 1/2 - 1 (0.706 mi.)***	***C20***	***90***

Database: RESPONSE, Date of Government Version: 10/31/2016

Status: Certified
Facility Id: 33320002

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 10/31/2016 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED CORP Facility Id: 80001506 Facility Id: 33320002 Status: * Inactive Status: Certified	***2100 AVALON ST.***	***S 1/2 - 1 (0.706 mi.)***	***C20***	***90***

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED, RIVERSI	2100 AVALON ST	S 1/2 - 1 (0.706 mi.)	C19	88

Other Ascertainable Records

US MINES: Mines Master Index File. The source of this database is the Dept. of Labor, Mine Safety and Health Administration.

A review of the US MINES list, as provided by EDR, has revealed that there is 1 US MINES site within

approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RIVERSIDE CEMENT CO Database: US MINES, Date of Government Version: 08/05/2016		NNE 0 - 1/8 (0.024 mi.)	15	77

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 11/21/2016 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED CORPORAT EPA Id: CAD990663320 Cleanup Status: KNOWN GENERATORS	***2100 AVALON STREET***	***S 1/2 - 1 (0.706 mi.)***	***C21***	***106***

San Bern. Co. Permit: San Bernardino County Fire Department Hazardous Materials Division.

A review of the San Bern. Co. Permit list, as provided by EDR, and dated 12/09/2016 has revealed that there are 2 San Bern. Co. Permit sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ADVANCE COLLISION Facility Status: ACTIVE Facility Id: FA0016865	***12073 CEDAR AVE***	***NW 0 - 1/8 (0.050 mi.)***	***B16***	***84***
PRESTIGE PAINT AND C Facility Status: INACTIVE Facility Id: FA0003921	12073 CEDAR AVE	NW 0 - 1/8 (0.050 mi.)	B18	88

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

EXECUTIVE SUMMARY

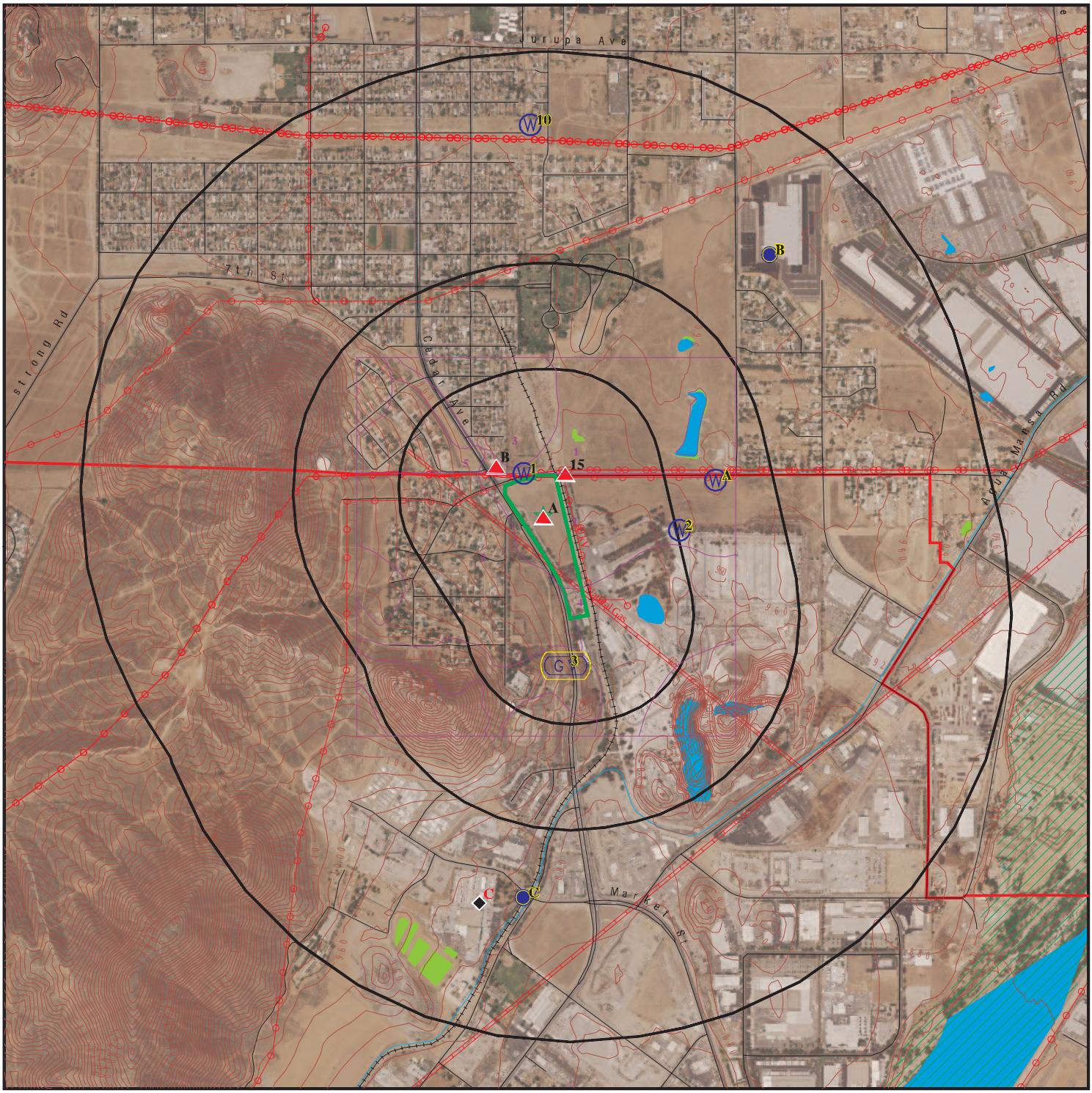
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	12073 CEDAR AVE	NW 0 - 1/8 (0.050 mi.)	B17	87

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
HIGH SCHOOL - CEDAR AVENUE	ENVIROSTOR, SCH

OVERVIEW MAP - 4878892.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

County Boundary

Power transmission lines

Pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

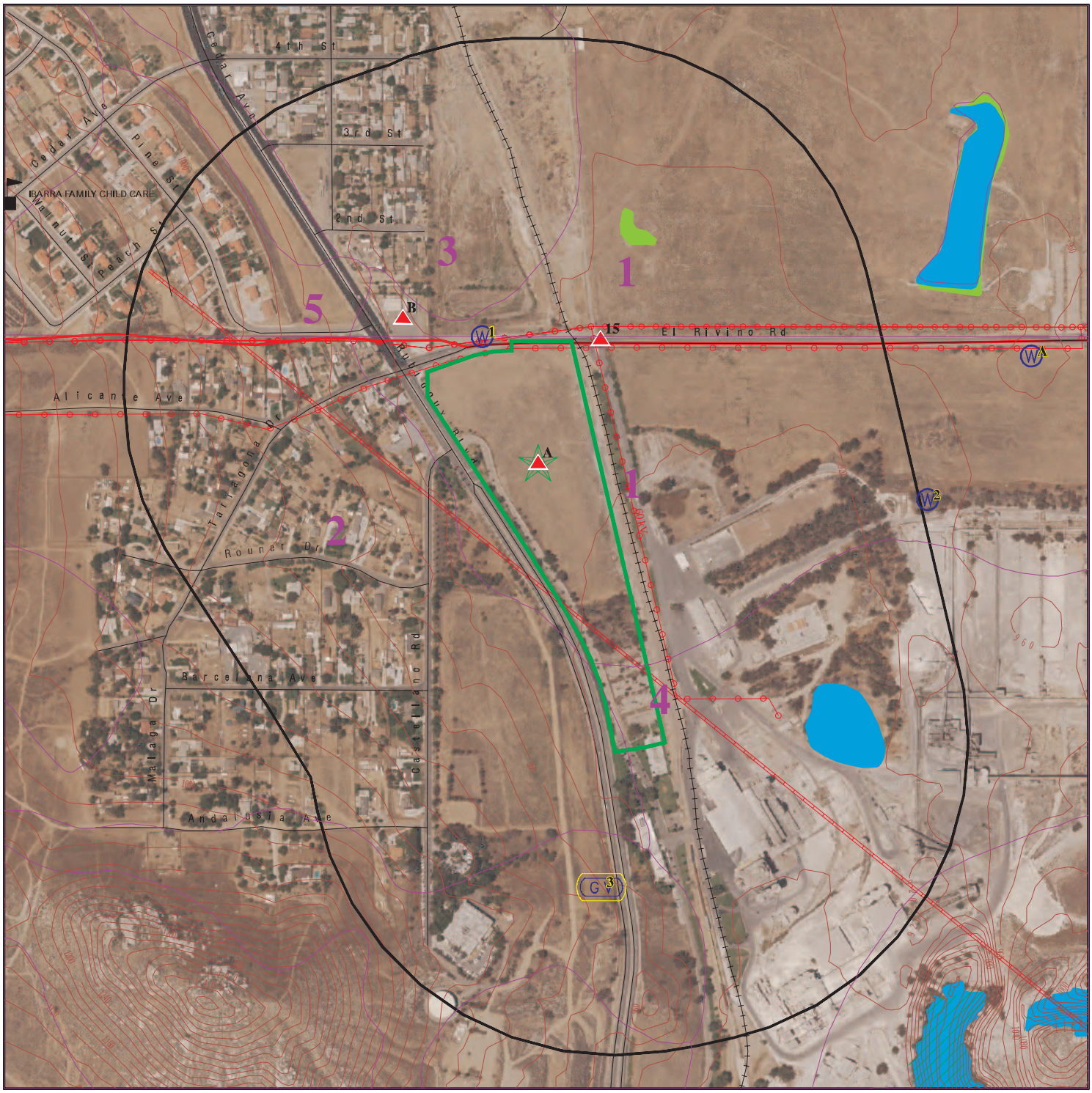
Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	AMCP - Northwestern Parcels	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Drew Lassen
LAT/LONG:	34.032407 / 117.391178	INQUIRY #:	4878892.2s
		DATE:	March 14, 2017 2:34 pm

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DETAIL MAP - 4878892.2S



Target Property
Sites at elevations higher than or equal to the target property
Sites at elevations lower than the target property
Manufactured Gas Plants
Sensitive Receptors
National Priority List Sites
Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA
County Boundary
Power transmission lines
Pipelines
100-year flood zone
500-year flood zone
National Wetland Inventory
State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	AMCP - Northwestern Parcels	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Drew Lassen
		INQUIRY #:	4878892.2s
LAT/LONG:	34.032407 / 117.391178	DATE:	March 14, 2017 2:35 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500	1	0	0	0	NR	NR	1
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		1	0	NR	NR	NR	1
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	1	NR	1
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000	1	0	0	0	1	NR	2
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500	1	0	0	0	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250	2	0	0	NR	NR	NR	2
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500	1	0	0	0	NR	NR	1
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	1	NR	1
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250	1	0	0	NR	NR	NR	1
HIST UST	0.250	1	0	0	NR	NR	NR	1
CA FID UST	0.250	1	0	0	NR	NR	NR	1
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001	1	0	NR	NR	NR	NR	1
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001	1	0	NR	NR	NR	NR	1
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001	1	0	NR	NR	NR	NR	1
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001	1	0	NR	NR	NR	NR	1
US MINES	0.250		1	0	NR	NR	NR	1
FINDS	0.001	2	0	NR	NR	NR	NR	2
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001	2	0	NR	NR	NR	NR	2
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001	3	0	NR	NR	NR	NR	3
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500	1	0	0	0	NR	NR	1
HWP	1.000		0	0	0	1	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001	1	0	NR	NR	NR	NR	1
San Bern. Co. Permit	0.250		2	0	NR	NR	NR	2
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001	1	0	NR	NR	NR	NR	1
WIP	0.250		0	0	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
ECHO	0.001	1	0	NR	NR	NR	NR	1
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		1	NR	NR	NR	NR	1
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001	2	0	NR	NR	NR	NR	2
- Totals --		26	5	0	0	4	0	35

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **RIVERSIDE CEMENT COMPANY- CRESTMORE FACILITY** **AST** **A100423904**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92509**

Site 1 of 14 in cluster A

Actual:
927 ft.

AST:

Certified Unified Program Agencies:	Not reported
Owner:	Riverside Cement Company
Total Gallons:	Not reported
CERSID:	10470340
Facility ID:	Not reported
Business Name:	RIVERSIDE CEMENT COMPANY
Phone:	951-774-2500
Fax:	Not reported
Mailing Address:	245 Ward Road
Mailing Address City:	Midlothian
Mailing Address State:	TX
Mailing Address Zip Code:	76065
Operator Name:	Riverside Cement Company
Operator Phone:	951-774-2500
Owner Phone:	760-617-8141
Owner Mail Address:	245 Ward Road
Owner State:	TX
Owner Zip Code:	76065
Owner Country:	United States
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	CAD063844443

A2 **RIVERSIDE CEMENT COMPANY** **SWEEPS UST** **S101619622**
Target **1500 RUBIDOUX BLVD** **CA FID UST** **N/A**
Property **RIVERSIDE, CA 92509**

Site 2 of 14 in cluster A

Actual:
927 ft.

SWEEPS UST:

Status:	Active
Comp Number:	65436
Number:	1
Board Of Equalization:	44-018479
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	33-000-065436-000008
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	2
Status:	Active

RIVERSIDE CEMENT COMPANY (Continued) **S101619622**

Comp Number:	65436
Number:	1
Board Of Equalization:	44-018479
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	33-000-065436-000009
Tank Status:	A
Capacity:	10000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	33003042
Regulated By:	UTNKA
Regulated ID:	00065436
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7146833660
Mail To:	Not reported
Mailing Address:	P O BOX 832
Mailing Address 2:	Not reported
Mailing City,St,Zip:	RIVERSIDE 92509
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

A3 **RIVERSIDE CEMENT COMPANY** **HAZNET** **S113001343**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92509**

Site 3 of 14 in cluster A

Actual:
927 ft.

HAZNET:

envid:	S113001343
Year:	2015
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	CAD982444481
TSD County:	San Bernardino
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	33.712

RIVERSIDE CEMENT COMPANY (Continued) **S113001343**

Cat Decode:	Other empty containers 30 gallons or more
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside
envid:	S113001343
Year:	2015
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	TXD055141378
TSD County:	99
Waste Category:	Liquids with polychloronated biphenyls >= 50 Mg./L
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	2.53791
Cat Decode:	Liquids with polychloronated biphenyls >= 50 Mg./L
Method Decode:	Incineration--Thermal Destruction Other Than Use As A Fuel
Facility County:	Riverside
envid:	S113001343
Year:	2015
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	TXD055141378
TSD County:	99
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.066
Cat Decode:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Method Decode:	Incineration--Thermal Destruction Other Than Use As A Fuel
Facility County:	Riverside
envid:	S113001343
Year:	2015
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Polychlorinated biphenyls and material containing PCBs
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.3
Cat Decode:	Polychlorinated biphenyls and material containing PCBs

RIVERSIDE CEMENT COMPANY (Continued) **S113001343**

Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Riverside

envid: S113001343
Year: 2015
GEPAID: CAD063844443
Contact: MICHAEL MEINEN
Telephone: 7606178141
Mailing Name: Not reported
Mailing Address: 245 WARD RD
Mailing City,St,Zip: MIDLOTHIAN, TX 76065
Gen County: Riverside
TSD EPA ID: CAL000330453
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.6
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Riverside

Click this hyperlink while viewing on your computer to access
122 additional CA_HAZNET: record(s) in the EDR Site Report.

A4 **TXI RIVERSIDE CEMENT CO CRESTMORE PLANT** **FINDS 1016068533**
Target **1500 RUBIDOUX BOULEVARD** **ECHO N/A**
Property **RIVERSIDE, CA 92509**

Site 4 of 14 in cluster A

Actual: 927 ft.

FINDS:

Registry ID: 110001199587

Environmental Interest/Information System
AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

AIR MAJOR

SUPERFUND (NON-NPL)

TXI RIVERSIDE CEMENT CO CRESTMORE PLANT (Continued) **1016068533**

ECHO:
Envid: 1016068533
Registry ID: 110001199587
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110001199587

A5 Target Property **RIVERSIDE CEMENT CO (EIS USE)** **S103443287**
1500 RUBIDOUX BLVD **N/A**
RIVERSIDE, CA 92509

Site 5 of 14 in cluster A

Actual: 927 ft.

Database(s): ENVIROSTOR, LUST, WMUDS/SWAT, LDS, EMI, HIST CORTESE, NPDES, WDS

ENVIROSTOR:
Facility ID: 33140002
Status: Refer: RWQCB
Status Date: 01/11/2011
Site Code: 401056
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 10
NPL: NO
Regulatory Agencies: US EPA
Lead Agency: US EPA
Program Manager: Rania Zabaneh
Supervisor: Eileen Mananian
Division Branch: Cleanup Cypress
Assembly: 60
Senate: 31
Special Program: EPA - PASI
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 34.02802
Longitude: -117.3867
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: Polychlorinated biphenyls (PCBs Chromium VI
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD063844443
Alias Type: EPA Identification Number
Alias Name: 401056
Alias Type: Project Code (Site Code)
Alias Name: 33140002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: PA/SI Reassessment
Completed Date: 05/18/2009
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Completed Date: 10/12/1983
Comments: FACILITY IDENTIFIED ID FROM ERRIS

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 04/25/1983
Comments: FACILITY IDENTIFIED ID FROM REGION 9 EMS DATABASE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 04/11/1995
Comments: NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 05/19/1989
Comments: SITE SCREENING DONE FIT PA REASSESSMENT COMPLETED 8/2/88 RECOMMENDED HIGH PRIORITY SSI UNDER CERCLA; DHS CONCURS WITH RECOMMENDATION

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 06/01/1984
Comments: T/C W/ MALLORY S.MAY,GIFFORD HILL CO,214 -258-7175, 7/16/84 -1)SOURCE ACT: KLIN FIRED, CEMENT MFG 2)YR OF OPER: 1914 TO PRESENT. WASTE: CR CONTMN KILN BRICK. USED KILN BRICK WAS DISP IN A LDFL FROM 1955 TO 1979. SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 06/06/2007
Comments: Site Screening approved by EPA. "OCA Start".

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST:
Region: STATE
Global Id: T0606500166
Latitude: 34.0308386890794
Longitude: -117.388611886578
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 11/05/1991
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: SCB

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	083301366T
LOC Case Number:	89210
File Location:	Local Agency Warehouse
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Heating Oil / Fuel Oil
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500166
Contact Type:	Local Agency Caseworker
Contact Name:	SHARON BOLTINGHOUSE
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	sbolting@rivcocha.org
Phone Number:	9519558980

Status History:

Global Id:	T0606500166
Status:	Open - Case Begin Date
Status Date:	11/01/1987
Global Id:	T0606500166
Status:	Open - Site Assessment
Status Date:	11/01/1987
Global Id:	T0606500166
Status:	Open - Site Assessment
Status Date:	02/29/1988
Global Id:	T0606500166
Status:	Open - Remediation
Status Date:	03/01/1989
Global Id:	T0606500166
Status:	Completed - Case Closed
Status Date:	11/05/1991

Regulatory Activities:

Global Id:	T0606500166
Action Type:	Other
Date:	11/01/1987
Action:	Leak Reported
Global Id:	T0606500166
Action Type:	REMEDIATION
Date:	03/01/1989
Action:	Excavation
Global Id:	T0606500166
Action Type:	ENFORCEMENT
Date:	11/04/1991
Action:	File review - #RCDEH Upload Site File 10/15/2015

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Global Id:	T0606500166
Action Type:	ENFORCEMENT
Date:	11/05/1991
Action:	Closure/No Further Action Letter - #RCDEH1105

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083301366T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Bunker Fuel Oil
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0606500166
How Stopped Date:	Not reported
Enter Date:	12/6/1989
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	12/7/1989
Discover Date:	11/1/1987
Enforcement Date:	Not reported
Close Date:	11/5/1991
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	10/1/1989
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	12/6/1989
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.0271887
Longitude:	-117.3898002
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	PAH
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Hydr Basin #: UPPER SANTA ANA VALL
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: RCC PROPOSES TO MIX THE CONTAMINATED SOIL WITH CEMENT AND USE IT FOR PAVING ON SITE, APPROVED BY RCEH 12/13/90.

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 89210
Employee: Boltinghous-LOP
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

WMUDS/SWAT:
Edit Date: Not reported
Complexity: Not reported
Primary Waste: DOMIND
Primary Waste Type: Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Base Meridian: Not reported
NPID: Not reported
Tonnage: 0
Regional Board ID: Not reported
Municipal Solid Waste: False
Superorder: False
Open To Public: False
Waste List: False
Agency Type: Private
Agency Name: RIVERSIDE CEMENT COMPANY
Agency Department: Not reported
Agency Address: PO BOX 832
Agency City,St,Zip: RIVERSIDE CA 92502
Agency Contact: Not reported
Agency Telephone: 9096833660
Land Owner Name: Not reported
Land Owner Address: Not reported
Land Owner City,St,Zip: Not reported
Land Owner Contact: Not reported
Land Owner Phone: Not reported
Region: 8
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	3241
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	True
Solid Waste Assessment Test Program:	False
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Not reported
Sub Chapter 15:	True
Regional Board Project Officer:	Not reported
Number of WMUDS at Facility:	0
Section Range:	Not reported
RCRA Facility:	No
Waste Discharge Requirements:	H
Self-Monitoring Rept. Frequency:	Quarterly Submittal
Waste Discharge System ID:	8 332000001
Solid Waste Information ID:	Not reported

LDS:

Global Id:	L10003541579
Latitude:	34.02892
Longitude:	-117.3865
Case Type:	Land Disposal Site
Status:	Completed - Case Closed
Status Date:	11/02/2009
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Caseworker:	KDP
Local Agency:	Not reported
RB Case Number:	8 332000001
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Not reported
EDR Link ID:	L10003541579
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

EMI:

Year:	1996
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3255
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	39
NOX - Oxides of Nitrogen Tons/Yr:	149
SOX - Oxides of Sulphur Tons/Yr:	66
Particulate Matter Tons/Yr:	54
Part. Matter 10 Micrometers and Smllr Tons/Yr:	50

Year:	2002
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	73
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2003
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	73
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2004
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.289508
Reactive Organic Gases Tons/Yr:	0.26
Carbon Monoxide Emissions Tons/Yr:	0.75097
NOX - Oxides of Nitrogen Tons/Yr:	72.6925
SOX - Oxides of Sulphur Tons/Yr:	1.208824
Particulate Matter Tons/Yr:	0.05006

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Part. Matter 10 Micrometers and Smllr Tons/Yr:0.05

Year:	2005
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.57899
Reactive Organic Gases Tons/Yr:	1.256253035
Carbon Monoxide Emissions Tons/Yr:	11.3
NOX - Oxides of Nitrogen Tons/Yr:	73.2
SOX - Oxides of Sulphur Tons/Yr:	4.86
Particulate Matter Tons/Yr:	62.3104
Part. Matter 10 Micrometers and Smllr Tons/Yr:	33.9260864

Year:	2006
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.049977653408348326
Reactive Organic Gases Tons/Yr:	.83
Carbon Monoxide Emissions Tons/Yr:	2.323
NOX - Oxides of Nitrogen Tons/Yr:	61.961
SOX - Oxides of Sulphur Tons/Yr:	2.599
Particulate Matter Tons/Yr:	106.956
Part. Matter 10 Micrometers and Smllr Tons/Yr:	97.99428

Year:	2007
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.043561845063478607
Reactive Organic Gases Tons/Yr:	.83
Carbon Monoxide Emissions Tons/Yr:	2.323
NOX - Oxides of Nitrogen Tons/Yr:	61.961
SOX - Oxides of Sulphur Tons/Yr:	2.599
Particulate Matter Tons/Yr:	106.956
Part. Matter 10 Micrometers and Smllr Tons/Yr:	97.99428

Year:	2008
County Code:	33
Air Basin:	SC
Facility ID:	800182

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.7269285903408251728
Reactive Organic Gases Tons/Yr:	.326309126
Carbon Monoxide Emissions Tons/Yr:	.4
NOX - Oxides of Nitrogen Tons/Yr:	10.94
SOX - Oxides of Sulphur Tons/Yr:	2.52
Particulate Matter Tons/Yr:	17.768865875
Part. Matter 10 Micrometers and Smllr Tons/Yr:	16.365356605

Year:	2012
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.042662419163
Reactive Organic Gases Tons/Yr:	0.02969
Carbon Monoxide Emissions Tons/Yr:	0.11428
NOX - Oxides of Nitrogen Tons/Yr:	0.37817
SOX - Oxides of Sulphur Tons/Yr:	0.00194
Particulate Matter Tons/Yr:	4.11788
Part. Matter 10 Micrometers and Smllr Tons/Yr:	3.78922912

Year:	2013
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4.1434347314e-005
Reactive Organic Gases Tons/Yr:	2.8523e-005
Carbon Monoxide Emissions Tons/Yr:	7.3451e-005
NOX - Oxides of Nitrogen Tons/Yr:	0.00019883
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.003042273
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.001221835008

Year:	2014
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.026101689543

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Reactive Organic Gases Tons/Yr: 0.02511
Carbon Monoxide Emissions Tons/Yr: 0.03163
NOX - Oxides of Nitrogen Tons/Yr: 0.02527
SOX - Oxides of Sulphur Tons/Yr: 9e-005
Particulate Matter Tons/Yr: 6.626795
Part. Matter 10 Micrometers and Smllr Tons/Yr: 2.660097

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 083301366T

NPDES:
Npdes Number: CAS000001
Facility Status: Terminated
Agency Id: 0
Region: 8
Regulatory Measure Id: 210701
Order No: 97-03-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 8 33I002053
Program Type: Industrial
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 03/30/1992
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: 06/24/2016
Discharge Name: TXI Riverside Cement Company
Discharge Address: PO Box 146
Discharge City: Oro Grande
Discharge State: California
Discharge Zip: 92368
RECEIVED DATE: Not reported
PROCESSED DATE: Not reported
STATUS CODE NAME: Not reported
STATUS DATE: Not reported
PLACE SIZE: Not reported
PLACE SIZE UNIT: Not reported
FACILITY CONTACT NAME: Not reported
FACILITY CONTACT TITLE: Not reported
FACILITY CONTACT PHONE: Not reported
FACILITY CONTACT PHONE EXT: Not reported
FACILITY CONTACT EMAIL: Not reported
OPERATOR NAME: Not reported
OPERATOR ADDRESS: Not reported
OPERATOR CITY: Not reported
OPERATOR STATE: Not reported
OPERATOR ZIP: Not reported
OPERATOR CONTACT NAME: Not reported
OPERATOR CONTACT TITLE: Not reported
OPERATOR CONTACT PHONE: Not reported
OPERATOR CONTACT PHONE EXT: Not reported
OPERATOR CONTACT EMAIL: Not reported
OPERATOR TYPE: Not reported
DEVELOPER NAME: Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	210701
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I002053
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	6/24/2016
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	3/30/1992
STATUS CODE NAME:	Terminated
STATUS DATE:	8/3/2016

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

PLACE SIZE:	294
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Stewart Minter
FACILITY CONTACT TITLE:	Operations Manager
FACILITY CONTACT PHONE:	951-774-2519
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	stewart.minter@martinmarietta.com
OPERATOR NAME:	TXI Riverside Cement Company
OPERATOR ADDRESS:	PO Box 146
OPERATOR CITY:	Oro Grande
OPERATOR STATE:	California
OPERATOR ZIP:	92368
OPERATOR CONTACT NAME:	Kevin Grogan
OPERATOR CONTACT TITLE:	General Manager
OPERATOR CONTACT PHONE:	760-245-5321
OPERATOR CONTACT PHONE EXT:	5283
OPERATOR CONTACT EMAIL:	kevin.grogan@martinmarietta.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	951-201-5238
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	David Perkins
CERTIFIER TITLE:	General Manager
CERTIFICATION DATE:	24-JUN-16
PRIMARY SIC:	3241-Cement, Hydraulic
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

WDS:

Facility ID:	Santa Ana River 33I002053
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

	processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	RIVERSIDE CEMENT COMPANY
Agency Address:	PO BOX 832
Agency City,St,Zip:	RIVERSIDE 92502
Agency Contact:	RICHARD BALL
Agency Telephone:	9096833660
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

A6 **PANTHER IRON COMPANY INC** **HAZNET** **S112941758**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92509**

Site 6 of 14 in cluster A

Actual:
927 ft.

HAZNET:

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024

PANTHER IRON COMPANY INC (Continued) **S112941758**

Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	D006
Disposal Method:	Disposal, Land Fill
Tons:	32.02
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	D008
Disposal Method:	Disposal, Land Fill
Tons:	15.17
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	D006
Disposal Method:	Disposal, Other
Tons:	94.39
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

A7 **RIVERSIDE CEMENT CO (EIS USE)** **HIST UST** **U001576600**
Target **1500 RUBIDOUX BL** **EMI** **N/A**
Property **RIVERSIDE, CA 92509**

Site 7 of 14 in cluster A

Actual:
927 ft.

HIST UST:

File Number:	0001F6CC
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F6CC.pdf
Region:	STATE
Facility ID:	00000065436
Facility Type:	Other

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

Other Type:	CEMENT
Contact Name:	Not reported
Telephone:	7146833660
Owner Name:	GIFFORD-HILL INC.
Owner Address:	300 EAST JOHN CARPENTER FREEWA
Owner City,St,Zip:	IRVING, TX 75062
Total Tanks:	0007
Tank Num:	001
Container Num:	DIESEL #1
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	GASOLINE#1
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	AB #1
Year Installed:	Not reported
Tank Capacity:	00002000
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	None
Tank Num:	004
Container Num:	AB #2
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	None
Tank Num:	005
Container Num:	AB #3
Year Installed:	Not reported
Tank Capacity:	00000000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	Not reported
Leak Detection:	Visual
Tank Num:	006
Container Num:	DIESEL 2A
Year Installed:	Not reported
Tank Capacity:	00010000

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 007
Container Num: DISEL #2B
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Click here for Geo Tracker PDF:

EMI:

Year: 1987
County Code: 33
Air Basin: SC
Facility ID: 800182
Air District Name: SC
SIC Code: 3255
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 9
Reactive Organic Gases Tons/Yr: 4
Carbon Monoxide Emissions Tons/Yr: 233
NOX - Oxides of Nitrogen Tons/Yr: 555
SOX - Oxides of Sulphur Tons/Yr: 68
Particulate Matter Tons/Yr: 110
Part. Matter 10 Micrometers and Smllr Tons/Yr: 98

Year: 1990
County Code: 33
Air Basin: SC
Facility ID: 800182
Air District Name: SC
SIC Code: 3255
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 21
Reactive Organic Gases Tons/Yr: 9
Carbon Monoxide Emissions Tons/Yr: 107
NOX - Oxides of Nitrogen Tons/Yr: 59
SOX - Oxides of Sulphur Tons/Yr: 61
Particulate Matter Tons/Yr: 97
Part. Matter 10 Micrometers and Smllr Tons/Yr: 89

Year: 1995
County Code: 33
Air Basin: SC
Facility ID: 800182
Air District Name: SC
SIC Code: 3255

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	12
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	84
NOX - Oxides of Nitrogen Tons/Yr:	51
SOX - Oxides of Sulphur Tons/Yr:	12
Particulate Matter Tons/Yr:	47
Part. Matter 10 Micrometers and Smllr Tons/Yr:	43

Year:	1997
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	46

Year:	1998
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7
Reactive Organic Gases Tons/Yr:	6
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	44

Year:	1999
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	46

Year:	2000
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	46

Year:	2001
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	46
NOX - Oxides of Nitrogen Tons/Yr:	59
SOX - Oxides of Sulphur Tons/Yr:	17
Particulate Matter Tons/Yr:	41
Part. Matter 10 Micrometers and Smllr Tons/Yr:	38

Year:	2009
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3.1786142691247098E-2
Reactive Organic Gases Tons/Yr:	0.0179197
Carbon Monoxide Emissions Tons/Yr:	0.15273999999999999
NOX - Oxides of Nitrogen Tons/Yr:	0.26882
SOX - Oxides of Sulphur Tons/Yr:	0.0011255
Particulate Matter Tons/Yr:	3.7936100000000001
Part. Matter 10 Micrometers and Smllr Tons/Yr:	3.49106344

Year:	2011

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.023880149034
Reactive Organic Gases Tons/Yr:	0.01282
Carbon Monoxide Emissions Tons/Yr:	0.12405
NOX - Oxides of Nitrogen Tons/Yr:	0.21599
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2.30864
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2.12480328

A8 **RIVERSIDE CEMENT CO (EIS USE)** **FINDS** **1014675933**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92509**

Site 8 of 14 in cluster A

Actual:
927 ft.

FINDS:

Registry ID: 110041108565

Environmental Interest/Information System
HAZARDOUS AIR POLLUTANT MAJOR

STATE MASTER

A9 **RIVERSIDE CEMENT CRESTMORE PLANT** **AST** **A100108116**
Target **1500 RUBIDOUX BLVD.** **N/A**
Property **RIVERSIDE, CA**

Site 9 of 14 in cluster A

Actual:
927 ft.

AST:

Certified Unified Program Agencies:	Riverside
Owner:	RIVERSIDE CEMENT COMPANY
Total Gallons:	5,000
CERSID:	Not reported
Facility ID:	Not reported
Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported
Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported

RIVERSIDE CEMENT CRESTMORE PLANT (Continued) **A100108116**

Owner Zip Code:	Not reported
Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

A10 **RIVERSIDE CEMENT** **RGA LUST** **S114677341**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA**

Site 10 of 14 in cluster A

Actual: **927 ft.**

RGA LUST:

2012	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2011	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2010	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2009	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2008	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2007	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2006	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2005	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2004	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2003	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2002	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2001	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD

A11 **RIVERSIDE CEMENT** **RGA LUST** **S114677342**
Target **1500 RUBIDOUX BOULEVARD** **N/A**
Property **RIVERSIDE, CA**

Site 11 of 14 in cluster A

Actual: **927 ft.**

RGA LUST:

1998	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1997	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1996	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1995	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1994	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1993	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1992	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD

A12 **RIVERSIDE CEMENT COMPANY - CRESTMORE PLANT** **TSCA** **1014200494**
Target Property **1500 RUBIDOUX BLVD.** **N/A**
RIVERSIDE, CA 92509

Site 12 of 14 in cluster A

Actual: 927 ft.

Click this hyperlink while viewing on your computer to access additional TSCA detail in the EDR Site Report.

A13 **RIVERSIDE CEMENT/TXI RIVERSIDE CEMENT** **HAZNET** **S112893771**
Target Property **1500 RUBEDOUX BLVD** **N/A**
RIVERSIDE, CA 92502

Site 13 of 14 in cluster A

Actual: 927 ft.

HAZNET:

envid:	S112893771
Year:	1999
GEPAID:	CAC001472088
Contact:	TXI RIVERSIDE CEMENT
Telephone:	9096836458
Mailing Name:	Not reported
Mailing Address:	PO BOX 56040
Mailing City,St,Zip:	RIVERSIDE, CA 925170000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	12.9270
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

A14 **RIVERSIDE CEMENT CO CRESTMORE PLT** **SEMS** **1000218306**
Target Property **1500 RUBIDOUX BLVD** **ICIS** **CAD063844443**
RIVERSIDE, CA 92502 **US AIRS**

Site 14 of 14 in cluster A

Actual: 927 ft.

SEMS:

Site ID:	901505
EPA ID:	CAD063844443
Federal Facility:	N
NPL:	Not on the NPL
Non NPL Status:	Other Cleanup Activity: State-Lead Cleanup

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID:	0901505
EPA ID:	CAD063844443
Facility County:	RIVERSIDE
Short Name:	RIVERSIDE CEMENT CO CREST
Congressional District:	36
IFMS ID:	Not reported
SMSA Number:	6780
USGC Hydro Unit:	18070203
Federal Facility:	Not a Federal Facility
DMNSN Number:	0.00000
Site Orphan Flag:	N

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

RCRA ID: Not reported
USGS Quadrangle: Not reported
Site Init By Prog: Not reported
NFRAP Flag: Not reported
Parent ID: Not reported
RST Code: Not reported
EPA Region: 09
Classification: Not reported
Site Settings Code: Not reported
NPL Status: Not on the NPL
DMNSN Unit Code: Not reported
RBRAC Code: Not reported
RResp Fed Agency Code: Not reported
Non NPL Status: Other Cleanup Activity: State-Lead Cleanup
Non NPL Status Date: 06/06/07
Site Fips Code: 06065
CC Concurrence Date: / /
CC Concurrence FY: Not reported
Alias EPA ID: Not reported
Site FUDS Flag: Not reported

CERCLIS Site Contact Name(s):

Contact ID: 13003854.00000
Contact Name: Leslie Ramirez
Contact Tel: (415) 972-3978
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13003858.00000
Contact Name: Sharon Murray
Contact Tel: (415) 972-4250
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13004003.00000
Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Alias Comments: Not reported
Site Description: 10/07" Envirostor DISCOVERY 4/25/1983 FACILITY IDENTIFIED ID FROM REGION 9 EMS DATABASE DISCOVERY 10/12/1983 FACILITY IDENTIFIED ID FROM ERRIS PA PRELIMINARY ASSESSMENT REPORT 6/1/1984 T/C W/ MALLORY S.MAY,GIFFORD HILL CO,214 -258-7175, 7/16/84 -1)SOURCE ACT: KLIN FIRED, CEMENT MFG 2)YR OF OPER: 1914 TO PRESENT. WASTE: CR CONTMN KILN BRICK. USED KILN BRICK WAS DISP IN A LDFL FROM 1955 TO 1979. SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012 SITE SCREENING 5/19/1989 SITE SCREENING DONE FIT PA REASSESSMENT COMPLETED 8/2/88 RECOMMENDED HIGH PRIORITY SSI UNDER CERCLA; DHS CONCURS WITH RECOMMENDATION SITE SCREENING 4/11/1995 NFA FOR DTSC. SITE SCREENING 6/6/2007 Site Screening approved by EPA. "OCA Start".

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: / /

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Date Completed: 08/01/80
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: PRELIMINARY ASSESSMENT
Date Started: 10/01/84
Date Completed: 01/01/85
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 09/01/88
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE INSPECTION
Date Started: / /
Date Completed: 12/01/90
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE REASSESSMENT
Date Started: 07/01/02
Date Completed: 06/30/03
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Action Code:	002
Action:	SITE REASSESSMENT
Date Started:	/ /
Date Completed:	06/06/07
Priority Level:	Not reported
Operable Unit:	SITEWIDE
Primary Responsibility:	State, Fund Financed
Planning Status:	Not reported
Urgency Indicator:	Not reported
Action Anomaly:	Not reported

ICIS:

Enforcement Action ID:	CASCAA0000060650000300120
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300120
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not reported

Enforcement Action ID:	CASCAA0000060650000300119
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300119
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not reported

Enforcement Action ID:	CASCAA0000060650000300107
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300107
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not reported

Enforcement Action ID:	CASCAA0000060650000300106
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300106
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not reported

Enforcement Action ID:	CASCAA0000060650000300096
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300096
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not reported

Enforcement Action ID:	CASCAA0000060650000300095

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300095
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not reported

Enforcement Action ID:	CASCAA0000060650000300077
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300077
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not reported

Enforcement Action ID:	CASCAA0000060650000300076
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300076
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300066
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300066
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300065
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300065
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300061
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300061
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300060
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300060
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300043
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300043
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300042
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300042
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300037
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300037
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300036
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300036
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

US AIRS (AFS):
Envid: 1000218306
Region Code: 09
County Code: CA065
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
D and B Number: Not reported
Facility Site Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Primary SIC Code: 3255
NAICS Code: 327124
Default Air Classification Code: MAJ
Facility Type of Ownership Code: POF
Air CMS Category Code: TVM
HPV Status: Not reported

US AIRS (AFS):
Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: MACT Standards (40 CFR Part 63)
Activity Date: 2008-03-05 00:00:00
Activity Status Date: 2008-04-03 17:10:01
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: MACT Standards (40 CFR Part 63)
Activity Date: 2008-03-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1984-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1985-01-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1986-03-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1987-05-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1987-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1988-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1989-11-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1990-11-19 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1991-12-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1993-11-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2012-02-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2012-07-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2012-07-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2013-03-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2013-10-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 2014-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 1999-03-05 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2008-09-24 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2009-09-02 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2009-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2013-01-31 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2013-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2014-08-28 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-02-10 00:00:00
Activity Status Date: 2015-03-03 17:58:17
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:08:29
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:15:03
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-02-11 00:00:00
Activity Status Date: 2016-05-06 12:08:28
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-02-27 00:00:00
Activity Status Date: 2016-05-06 12:07:30
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-05-18 00:00:00
Activity Status Date: 2016-05-24 16:14:33
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-05-18 00:00:00
Activity Status Date: 2016-05-24 16:15:49
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1978-12-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 1979-06-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1980-05-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1980-06-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1981-05-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1981-06-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1982-06-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1983-03-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1983-12-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1985-01-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1986-03-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-01-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-05-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1988-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1989-11-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1990-11-19 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1991-12-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1992-12-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 1993-11-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1995-11-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1997-08-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-02-24 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-09-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-02-18 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-07-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-08-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-09-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-12-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-06-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-02-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-05-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 2011-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-02-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-07-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-07-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-09-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-12-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-03-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-04-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-06-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-10-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-10-09 00:00:00
Activity Status Date: 1998-10-09 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-08 00:00:00
Activity Status Date: 2008-07-08 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-15 00:00:00
Activity Status Date: 2008-07-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 2009-06-26 00:00:00
Activity Status Date: 2009-06-26 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-09-15 00:00:00
Activity Status Date: 2011-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-09-15 00:00:00
Activity Status Date: 2013-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-02-06 00:00:00
Activity Status Date: 2014-02-06 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-09-18 00:00:00
Activity Status Date: 1998-09-18 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-04-25 00:00:00
Activity Status Date: 2008-04-25 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-05-07 00:00:00
Activity Status Date: 2008-05-07 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-11-13 00:00:00
Activity Status Date: 2008-11-13 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-06-01 00:00:00
Activity Status Date: 2011-06-01 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-05-10 00:00:00
Activity Status Date: 2013-05-10 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-09-18 00:00:00
Activity Status Date: 2013-09-18 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2001-03-07 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2008-09-24 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2009-09-02 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2009-12-17 00:00:00
Activity Group: Case File

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2013-01-31 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2013-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2014-08-28 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-10-08 00:00:00
Activity Status Date: 2015-06-03 16:12:48
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 2014-11-17 00:00:00
Activity Status Date: 2015-06-03 16:14:08
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-02-10 00:00:00
Activity Status Date: 2015-03-03 17:58:17
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-02-27 00:00:00
Activity Status Date: 2015-06-03 16:10:43
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:08:29
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:15:03
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2016-02-11 00:00:00
Activity Status Date: 2016-05-06 12:08:28
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2016-02-27 00:00:00
Activity Status Date: 2016-05-06 12:07:30
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2016-05-18 00:00:00
Activity Status Date: 2016-05-24 16:14:33
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2016-05-18 00:00:00
Activity Status Date: 2016-05-24 16:15:49
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 1997-08-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 1999-12-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2001-04-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2005-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2006-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-02-24 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-09-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-02-18 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-07-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 2009-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-07-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-08-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-09-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-12-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-06-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-02-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-05-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-02-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-07-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-07-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-09-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-12-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-03-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date: 2013-04-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-06-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-10-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2000-04-15 00:00:00
Activity Status Date: 2000-04-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-07-08 00:00:00
Activity Status Date: 2008-07-08 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-07-15 00:00:00
Activity Status Date: 2008-07-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-06-26 00:00:00
Activity Status Date: 2009-06-26 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-09-15 00:00:00
Activity Status Date: 2011-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-09-15 00:00:00
Activity Status Date: 2013-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-02-06 00:00:00
Activity Status Date: 2014-02-06 00:00:00
Activity Group: Enforcement Action

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2000-02-01 00:00:00
Activity Status Date: 2000-02-01 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-04-25 00:00:00
Activity Status Date: 2008-04-25 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-05-07 00:00:00
Activity Status Date: 2008-05-07 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-11-13 00:00:00
Activity Status Date: 2008-11-13 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Date:	2011-06-01 00:00:00
Activity Status Date:	2011-06-01 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-05-10 00:00:00
Activity Status Date:	2013-05-10 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-09-18 00:00:00
Activity Status Date:	2013-09-18 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved

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Actual:
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RIVERSIDE CEMENT CO **US MINES** **1016467340**
N/A

RIVERSIDE (County), CA

US MINES:

Mine ID:	0400010
SIC code(s):	324100 000000 000000 000000 000000 000000
Entity name:	CRESTMORE QUARRY
Company:	RIVERSIDE CEMENT CO
Status:	4
Status date:	20151101
Operation Class:	non-Coal Mining
Number of shops:	0
Number of plants:	0
Latitude:	34 02 02
Longitude:	117 23 25

Violations Details:

Violation Number:	8781694
Date Issued:	12/22/2014
Mine Status:	Abandoned
Status Date:	11/01/2015
Action Type:	104(a)
Date Abated:	12/23/2014

RIVERSIDE CEMENT CO (Continued) **1016467340**

Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 100.00
Paid Penalty: 100.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 100.00
Year: 2014

Violation Number: 8689544
Date Issued: 12/13/2012
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 12/13/2012
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 100
Paid Penalty: 100
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 100
Year: 2012

Violation Number: 8689527
Date Issued: 11/19/2012
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 01/28/2013
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 127
Paid Penalty: 127
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 127
Year: 2012

Violation Number: 8689526
Date Issued: 11/19/2012
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 12/11/2012
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 100
Paid Penalty: 100
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 100
Year: 2012

Violation Number: 8689519
Date Issued: 11/15/2012
Mine Status: Abandoned

RIVERSIDE CEMENT CO (Continued) **1016467340**

Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 11/15/2012
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 100
Paid Penalty: 100
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 100
Year: 2012

Violation Number: 8689525
Date Issued: 11/15/2012
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 11/19/2012
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 100
Paid Penalty: 100
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 100
Year: 2012

Violation Number: 8689524
Date Issued: 11/15/2012
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 11/19/2012
Citation/Order: Citation
Sig and Sub Designation: Y
Proposed Penalty: 634
Paid Penalty: 634
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 634
Year: 2012

Violation Number: 8689523
Date Issued: 11/15/2012
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 11/19/2012
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 100
Paid Penalty: 100
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 100
Year: 2012

RIVERSIDE CEMENT CO (Continued) **1016467340**

Violation Number:	8689522
Date Issued:	11/15/2012
Mine Status:	Abandoned
Status Date:	11/01/2015
Action Type:	104(a)
Date Abated:	11/19/2012
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	100
Paid Penalty:	100
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	100
Year:	2012

Violation Number:	8689521
Date Issued:	11/15/2012
Mine Status:	Abandoned
Status Date:	11/01/2015
Action Type:	104(a)
Date Abated:	11/15/2012
Citation/Order:	Citation
Sig and Sub Designation:	N
Proposed Penalty:	127
Paid Penalty:	127
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	127
Year:	2012

Violation Number:	8689520
Date Issued:	11/15/2012
Mine Status:	Abandoned
Status Date:	11/01/2015
Action Type:	104(a)
Date Abated:	11/19/2012
Citation/Order:	Citation
Sig and Sub Designation:	Y
Proposed Penalty:	190
Paid Penalty:	190
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	190
Year:	2012

Violation Number:	8689517
Date Issued:	11/15/2012
Mine Status:	Abandoned
Status Date:	11/01/2015
Action Type:	104(a)
Date Abated:	11/19/2012
Citation/Order:	Citation
Sig and Sub Designation:	Y
Proposed Penalty:	190
Paid Penalty:	190
Assessment Status code:	Closed
Assess. Case Status code:	Proposed

RIVERSIDE CEMENT CO (Continued) **1016467340**

Assessment Amount: 190
Year: 2012

Violation Number: 8689518
Date Issued: 11/15/2012
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 11/19/2012
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 100
Paid Penalty: 100
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 100
Year: 2012

Violation Number: 6369316
Date Issued: 11/04/2005
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 11/08/2005
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 60.00
Paid Penalty: 60.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 60.00
Year: 2005

Violation Number: 6369315
Date Issued: 11/02/2005
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 11/02/2005
Citation/Order: Citation
Sig and Sub Designation: Y
Proposed Penalty: 228.00
Paid Penalty: 228.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 228.00
Year: 2005

Violation Number: 6369313
Date Issued: 11/01/2005
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 11/01/2005
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 60.00

RIVERSIDE CEMENT CO (Continued) **1016467340**

Paid Penalty: 60.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 60.00
Year: 2005

Violation Number: 6369314
Date Issued: 11/01/2005
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 11/02/2005
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 60.00
Paid Penalty: 60.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 60.00
Year: 2005

Violation Number: 6369312
Date Issued: 10/27/2005
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 10/31/2005
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 60.00
Paid Penalty: 60.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 60.00
Year: 2005

Violation Number: 6369310
Date Issued: 10/26/2005
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 10/27/2005
Citation/Order: Citation
Sig and Sub Designation: N
Proposed Penalty: 60.00
Paid Penalty: 60.00
Assessment Status code: Closed
Assess. Case Status code: Proposed
Assessment Amount: 60.00
Year: 2005

Violation Number: 6369311
Date Issued: 10/26/2005
Mine Status: Abandoned
Status Date: 11/01/2015
Action Type: 104(a)
Date Abated: 10/26/2005

RIVERSIDE CEMENT CO (Continued) **1016467340**

Citation/Order:	Citation
Sig and Sub Designation:	Y
Proposed Penalty:	165.00
Paid Penalty:	165.00
Assessment Status code:	Closed
Assess. Case Status code:	Proposed
Assessment Amount:	165.00
Year:	2005

RIVERSIDE CEMENT CO (Continued) **1016467340**

Click this hyperlink while viewing on your computer to access
200 additional US_MINES: record(s) in the EDR Site Report.

B16 **ADVANCE COLLISION** **RCRA-SQG** **1000151445**
NW **12073 CEDAR AVE** **FINDS** **CAD982486623**
< 1/8 **BLOOMINGTON, CA 92316** **HAZNET**
0.050 mi. **San Bern. Co. Permit**
263 ft. **Site 1 of 3 in cluster B** **ECHO**

Relative: Higher

Actual: 939 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	ADVANCE COLLISION
Facility address:	12073 CEDAR AVE BLOOMINGTON, CA 92316
EPA ID:	CAD982486623
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	MORGAN ANDREW T
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No

ADVANCE COLLISION (Continued) **1000151445**

Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 04/23/1990
Site name: ADVANCE COLLISION
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 10/06/1992
Date achieved compliance: 10/06/1997
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 10/06/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/06/1997
Evaluation lead agency: State Contractor/Grantee

FINDS:

Registry ID: 110002827790

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
envid: 1000151445
Year: 1995
GEPAID: CAD982486623
Contact: Not reported

ADVANCE COLLISION (Continued) **1000151445**

Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 12073 CEDAR AVE
Mailing City,St,Zip: BLOOMINGTON, CA 923160000
Gen County: Not reported
TSD EPA ID: CAT000613893
TSD County: Not reported
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Transfer Station
Tons: .0580
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Bernardino

envid: 1000151445
Year: 1994
GEPAID: CAD982486623
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 12073 CEDAR AVE
Mailing City,St,Zip: BLOOMINGTON, CA 923160000
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Paint sludge
Disposal Method: Treatment, Incineration
Tons: .2750
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Bernardino

envid: 1000151445
Year: 1994
GEPAID: CAD982486623
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 12073 CEDAR AVE
Mailing City,St,Zip: BLOOMINGTON, CA 923160000
Gen County: Not reported
TSD EPA ID: CAT000613893
TSD County: Not reported
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Transfer Station
Tons: .0870
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Bernardino

envid: 1000151445
Year: 1994
GEPAID: CAD982486623
Contact: Not reported
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 12073 CEDAR AVE

ADVANCE COLLISION (Continued) **1000151445**

Mailing City,St,Zip: BLOOMINGTON, CA 923160000
Gen County: Not reported
TSD EPA ID: CAD008252405
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Recycler
Tons: .5504
Cat Decode: Not reported
Method Decode: Not reported
Facility County: San Bernardino

San Bern. Co. Permit:
Region: SAN BERNARDINO
Facility ID: FA0016865
Owner: Angel M Reyes
Permit Number: PT0036094
Permit Category: CONDITIONALLY EXEMPT SM QTY GENERATOR SPECIAL
Facility Status: ACTIVE
Expiration Date: 08/31/2017

ECHO:
Envid: 1000151445
Registry ID: 110002827790
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002827790

B17 **EDR Hist Auto** **1015182061**
NW **12073 CEDAR AVE** **N/A**
< 1/8 **BLOOMINGTON, CA 92316**
0.050 mi.
263 ft. **Site 2 of 3 in cluster B**

Relative:
Higher

Actual:
939 ft.

EDR Historical Auto Stations:
Name: PRESTIGE PAINT & COLLISION CENTER
Year: 2008
Address: 12073 CEDAR AVE

Name: INLAND AUTOBODY & PAINT CTR
Year: 2010
Address: 12073 CEDAR AVE

Name: INLAND AUTOBODY & PAINT CENTER
Year: 2011
Address: 12073 CEDAR AVE

Name: INLAND AUTOBODY & PAINT CENTER
Year: 2012
Address: 12073 CEDAR AVE

B18 **PRESTIGE PAINT AND COLLISION CENTER** **San Bern. Co. Permit** **S108753254**
NW **12073 CEDAR AVE** **N/A**
< 1/8 **BLOOMINGTON, CA 92316**
0.050 mi.
263 ft. **Site 3 of 3 in cluster B**

Relative:
Higher

Actual:
939 ft.

San Bern. Co. Permit:
Region: SAN BERNARDINO
Facility ID: FA0003921
Owner: MONET, NOEL
Permit Number: PT0007101
Permit Category: HAZMAT HANDLER 0-10 EMPLOYEES (W/GEN PRMT)
Facility Status: INACTIVE
Expiration Date: 05/31/2009

Region: SAN BERNARDINO
Facility ID: FA0003921
Owner: MONET, NOEL
Permit Number: PT0007102
Permit Category: CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR
Facility Status: INACTIVE
Expiration Date: 05/31/2009

C19 **CERTAINTEED, RIVERSIDE** **HIST Cal-Sites** **S102008375**
South **2100 AVALON ST** **N/A**
1/2-1 **RIVERSIDE, CA 92509**
0.706 mi.
3726 ft. **Site 1 of 3 in cluster C**

Relative:
Lower

Actual:
911 ft.

Calsite:
Region: CYPRESS
Facility ID: 33320002
Facility Type: RP
Type: RESPONSIBLE PARTY
Branch: SB
Branch Name: SO CAL - CYPRESS
File Name: Not reported
State Senate District: 02011984
Status: CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name: CERTIFIED
Lead Agency: N/A
NPL: Not reported
SIC Code: 32
SIC Name: MANU - STONE, CLAY & GLASS PRODUCTS
Access: Not reported
Cortese: Not reported
Hazardous Ranking Score: Not reported
Date Site Hazard Ranked: Not reported
Groundwater Contamination: Not reported
Staff Member Responsible for Site: Not reported
Supervisor Responsible for Site: Not reported
Region Water Control Board: Not reported
Region Water Control Board Name: Not reported
Lat/Long Direction: Not reported
Lat/Long (dms): 0 0 0 / 0 0 0
Lat/long Method: Not reported
Lat/Long Description: Not reported
State Assembly District Code: 66
State Senate District Code: 31
Facility ID: 33320002

CERTAINTEED, RIVERSIDE (Continued) **S102008375**

Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02011984
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	2100 AVALON STREET
Alternate City,St,Zip:	RIVERSIDE, CA 92502
Alternate Address:	2100 AVALON ST
Alternate City,St,Zip:	RIVERSIDE, CA 92509
Background Info:	Not reported
Comments Date:	01181996
Comments:	Our records do not indicate the actual date this site was
Comments Date:	01181996
Comments:	certified. Our records show 02/1984. We have used
Comments Date:	01181996
Comments:	02/01/1984 because this gives us the earliest statute of
Comments Date:	01181996
Comments:	limitations.
Comments Date:	01181996
Comments:	Not reported
Comments Date:	02011984
Comments:	80 cubic yards of contaminated soil removed.
Comments Date:	02011984
Comments:	This certification was comfirmed by a report prepared by the
Comments Date:	02011984
Comments:	Auditor General. The Auditor General conducted an audit of
Comments Date:	02011984
Comments:	the Department's records to confirm a list of sites where
Comments Date:	02011984
Comments:	the Department was involved in the cleanup and the cleanup
Comments Date:	02011984
Comments:	had been completed. This Auditor General list became the
Comments Date:	02011984
Comments:	basis for our historical certification information. Many of
Comments Date:	02011984
Comments:	the sites on this list were handled by our Surveillance and
Comments Date:	02011984
Comments:	Enforcement Staff. Much of this work was in response to
Comments Date:	02011984

CERTAINTEED, RIVERSIDE (Continued) **S102008375**

Comments:	complaints from the public or reports from industry and the
Comments Date:	02011984
Comments:	response action may have only addressed the immediate
Comments Date:	02011984
Comments:	problem and not the entire facility.
ID Name:	Not reported
ID Value:	Not reported
Alternate Name:	CERTAINTEED, RIVERSIDE
Alternate Name:	Not reported
Special Programs Code:	Not reported
Special Programs Name:	Not reported

C20 **CERTAINTEED CORP** **RCRA-SQG** **1000395862**
South **2100 AVALON ST.** **RESPONSE** **CAD990663320**
1/2-1 **RIVERSIDE, CA 92509** **ENVIROSTOR**
0.706 mi. **LUST**
3726 ft. **Site 2 of 3 in cluster C** **HIST UST**
CHMIRS
Relative: **LDS**
Lower **FTTS**
HIST FTTS
Actual: **FINDS**
911 ft. **EMI**
NPDES
WDS
ECHO

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	CERTAINTEED CORP
Facility address:	2100 AVALON ST RIVERSIDE, CA 92509
EPA ID:	CAD990663320
Mailing address:	BOX SEVENTH HUNDRED SIXTH RIVERSIDE, CA 92502
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	CERTAINTEEN CORPORATION
Owner/operator address:	P.O. BOX 869 CITY NOT REPORTED, PA 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(215) 687-5000
Legal status:	Private

CERTAINTEED CORP (Continued) **1000395862**

Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: CERTAINTEEN CORPORATION
Owner/operator address: P.O. BOX 869
VALLEY FORGE, PA 19482
Owner/operator country: Not reported
Owner/operator telephone: (215) 687-5000
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/01/1996
Site name: CERTAINTEED CORP
Classification: Small Quantity Generator

Date form received by agency: 04/10/1990
Site name: CERTAINTEED CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Site name: CERTAINTEED CORP
Classification: Conditionally Exempt Small Quantity Generator

Corrective Action Summary:
Event date: 01/01/1990
Event: CA029ST

Facility Has Received Notices of Violations:
Regulation violated: FR - 263
Area of violation: Transporters - General
Date violation determined: 08/11/1988
Date achieved compliance: 11/28/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

CERTAINTEED CORP (Continued) **1000395862**

Enforcement action date: 10/25/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 08/11/1988
Date achieved compliance: 11/28/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/25/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 08/03/1988
Date achieved compliance: 11/28/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 08/06/1987
Date achieved compliance: 08/31/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/06/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 263
Area of violation: Transporters - General
Date violation determined: 08/06/1987
Date achieved compliance: 08/31/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/06/1987

CERTAINTEED CORP (Continued) **1000395862**

Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 12/12/1986
Date achieved compliance: 07/21/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/30/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/04/1986
Date achieved compliance: 08/04/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/04/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 12/19/1985
Date achieved compliance: 08/04/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/23/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 09/25/1985
Date achieved compliance: 08/04/1986
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/23/1985
Enf. disposition status: Not reported

CERTAINTEED CORP (Continued) **1000395862**

Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 08/11/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/28/1988
Evaluation lead agency: State

Evaluation date: 08/11/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 11/28/1988
Evaluation lead agency: State

Evaluation date: 08/03/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 11/28/1988
Evaluation lead agency: State

Evaluation date: 08/06/1987
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/31/1987
Evaluation lead agency: State

Evaluation date: 08/06/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 08/31/1987
Evaluation lead agency: State

Evaluation date: 12/12/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 07/21/1987
Evaluation lead agency: State

Evaluation date: 08/04/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/04/1986
Evaluation lead agency: State

Evaluation date: 07/10/1986
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/10/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

CERTAINTEED CORP (Continued) **1000395862**

Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/19/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/04/1986
Evaluation lead agency: State

Evaluation date: 10/03/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/03/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/25/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/04/1986
Evaluation lead agency: EPA

Evaluation date: 07/30/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/23/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

RESPONSE:
Facility ID: 33320002
Site Type: State Response
Site Type Detail: State Response or NPL
Acres: 20.8
National Priorities List: NO
Cleanup Oversight Agencies: NONE SPECIFIED
Lead Agency Description: Not reported
Project Manager: Not reported
Supervisor: Thomas Cota
Division Branch: Cleanup Cypress
Site Code: Not reported
Site Mgmt. Req.: NONE SPECIFIED
Assembly: 60
Senate: 31
Special Program Status: Not reported
Status: Certified
Status Date: 02/01/1984

CERTAINTEED CORP (Continued) **1000395862**

Restricted Use: NO
Funding: Responsible Party
Latitude: 34.01982
Longitude: -117.3954
APN: NONE SPECIFIED
Past Use: MANUFACTURING - OTHER
Potential COC : Asbestos Containing Materials (ACM
Confirmed COC: Asbestos Containing Materials (ACM
Potential Description: SOIL
Alias Name: 110002144581
Alias Type: EPA (FRS #)
Alias Name: 33320002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 02/01/1984
Comments: Our records do not indicate the actual date this site was certified.
Our records show 02/1984. We have used 02/01/1984 because this gives us the earliest statute of limitations.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 80001506
Status: * Inactive
Status Date: 01/01/2008
Site Code: Not reported
Site Type: Corrective Action
Site Type Detailed: Corrective Action
Acres: 0
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Unknown
Division Branch: Cleanup Cypress
Assembly: 60
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 34.01919
Longitude: -117.3917
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED

CERTAINTEED CORP (Continued) **1000395862**

Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD990663320
Alias Type: EPA Identification Number
Alias Name: 80001506
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 33320002
Status: Certified
Status Date: 02/01/1984
Site Code: Not reported
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 20.8
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Thomas Cota
Division Branch: Cleanup Cypress
Assembly: 60
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 34.01982
Longitude: -117.3954
APN: NONE SPECIFIED
Past Use: MANUFACTURING - OTHER
Potential COC: Asbestos Containing Materials (ACM
Confirmed COC: Asbestos Containing Materials (ACM
Potential Description: SOIL
Alias Name: 110002144581
Alias Type: EPA (FRS #)
Alias Name: 33320002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE

CERTAINTEED CORP (Continued) **1000395862**

Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 02/01/1984
Comments: Our records do not indicate the actual date this site was certified.
Our records show 02/1984. We have used 02/01/1984 because this gives us the earliest statute of limitations.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083300480T
Local Case Num:	91654
Case Type:	Soil only
Substance:	Diesel
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	36TH
Enf Type:	CLOS
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Piping
Global ID:	T0606500050
How Stopped Date:	6/28/1991
Enter Date:	7/21/1987
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	7/1/1991
Enforcement Date:	Not reported
Close Date:	10/22/1992
Date Prelim Assessment Workplan Submitted:	7/22/1991
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	7/21/1987
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.018806
Longitude:	-117.3917223

CERTAINTEED CORP (Continued) **1000395862**

MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	RS
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	91654
Employee:	Thompson
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

HIST UST:

File Number:	0001F4A6
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F4A6.pdf
Region:	STATE
Facility ID:	00000016439
Facility Type:	Other
Other Type:	MANUFACTURING
Contact Name:	ROY WINGARTNER
Telephone:	7146821881
Owner Name:	CERTAINTEED CORPORATION
Owner Address:	750 SWEDESFORD RD.
Owner City,St,Zip:	VALLEY FORGE, PA 19482
Total Tanks:	0004
Tank Num:	001
Container Num:	#1
Year Installed:	1974
Tank Capacity:	00050000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	1/4"
Leak Detection:	Visual, Stock Inventor
Tank Num:	001
Container Num:	#1
Year Installed:	1974
Tank Capacity:	00050000
Tank Used for:	PRODUCT

CERTAINTEED CORP (Continued) **1000395862**

Type of Fuel:	DIESEL
Container Construction Thickness:	1/4"
Leak Detection:	Visual, Stock Inventor
Tank Num:	002
Container Num:	#2
Year Installed:	1966
Tank Capacity:	00020000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	1/4"
Leak Detection:	None
Tank Num:	002
Container Num:	#2
Year Installed:	1966
Tank Capacity:	00020000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	1/4"
Leak Detection:	None
Tank Num:	003
Container Num:	#3
Year Installed:	1976
Tank Capacity:	00020000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	3/32
Leak Detection:	None
Tank Num:	003
Container Num:	#3
Year Installed:	1976
Tank Capacity:	00020000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	3/32
Leak Detection:	None
Tank Num:	004
Container Num:	#4
Year Installed:	1966
Tank Capacity:	00250000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	8
Leak Detection:	None
Tank Num:	004
Container Num:	#4
Year Installed:	1966
Tank Capacity:	00250000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	8
Leak Detection:	None

CERTAINTEED CORP (Continued) **1000395862**

Click here for Geo Tracker PDF:

CHMIRS:

OES Incident Number:	12-5953
OES notification:	10/02/2012
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Industrial Plant
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1700
Year:	2012
Agency:	SoCal Edison
Incident Date:	10/1/2012
Admin Agency:	Riverside City Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Mineral Oil from 1972 pad mount transformer
Quantity Released:	1
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported

CERTAINTEED CORP (Continued) **1000395862**

Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Equipment failure caused this transformer to release to the concrete.

LDS:

Global Id:	L10004773685
Latitude:	34.01983
Longitude:	-117.3920
Case Type:	Land Disposal Site
Status:	Completed - Case Closed
Status Date:	11/02/2009
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Caseworker:	KDP
Local Agency:	Not reported
RB Case Number:	8 332001001
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Not reported
EDR Link ID:	L10004773685
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

FTTS INSP:

Inspection Number:	19871027CA001 1
Region:	09
Inspection Date:	10/27/87
Inspector:	BERMAN
Violation occurred:	Yes
Investigation Type:	Section 6 PCB State Conducted
Investigation Reason:	Neutral Scheme, State
Legislation Code:	TSCA
Facility Function:	User

HIST FTTS INSP:

Inspection Number:	19871027CA001 1
Region:	09
Inspection Date:	Not reported
Inspector:	BERMAN
Violation occurred:	Yes
Investigation Type:	Section 6 PCB State Conducted
Investigation Reason:	Neutral Scheme, State

CERTAINTEED CORP (Continued) **1000395862**

Legislation Code: TSCA
Facility Function: User

FINDS:

Registry ID: 110002144581

Environmental Interest/Information System
California Department of Toxic Substances Control EnviroStor System (DTSC-EnviroStor) is an online search and Geographic Information System (GIS) tool for identifying sites that have known contamination or sites for which there may be reasons to investigate further. The EnviroStor database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites.

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Registry ID: 110055672106

Environmental Interest/Information System
STATE MASTER

EMI:

Year:	1987
County Code:	33
Air Basin:	SC
Facility ID:	16952
Air District Name:	SC
SIC Code:	3317
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0

CERTAINTEED CORP (Continued) **1000395862**

Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	8
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2

Year:	1990
County Code:	33
Air Basin:	SC
Facility ID:	16952
Air District Name:	SC
SIC Code:	3317
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	287720
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I003002
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	4/2/1992
STATUS CODE NAME:	Terminated
STATUS DATE:	4/2/1992
PLACE SIZE:	40
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	James A Burke
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	714-628-1881
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Certainteed Corp
OPERATOR ADDRESS:	PO Box 706
OPERATOR CITY:	Riverside

CERTAINTEED CORP (Continued) **1000395862**

OPERATOR STATE:	California
OPERATOR ZIP:	92502
OPERATOR CONTACT NAME:	James A Burke
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	714-682-1881
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	714-628-1881
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	3292-Asbestos Products
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

WDS:

Facility ID:	Santa Ana River 33I015505
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	9098263000

CERTAINTEED CORP (Continued) **1000395862**

Facility Contact:	HODGE JOHN
Agency Name:	UNIVERSAL FOREST PRODUCTS
Agency Address:	PO BOX 3589
Agency City,St,Zip:	RIVERSIDE 925193589
Agency Contact:	SCOTT W. CONKLIN
Agency Telephone:	9098263000
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

ECHO:

Envid:	1000395862
Registry ID:	110002144581
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002144581

C21 **CERTAINTEED CORPORATION** **HAZNET** **S112866131**
South **2100 AVALON STREET** **HWP** **N/A**
1/2-1 **RIVERSIDE, CA 92509**
0.706 mi.
3726 ft. **Site 3 of 3 in cluster C**

Relative:
Lower

Actual:
911 ft.

HAZNET:

envid:	S112866131
Year:	1998
GEPAID:	CAC001085088
Contact:	LLOYD AMBLER
Telephone:	6103417713
Mailing Name:	Not reported
Mailing Address:	2100 AVALON AVE
Mailing City,St,Zip:	RIVERSIDE, CA 925090000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste

CERTAINTEED CORPORATION (Continued) **S112866131**

Disposal Method: Disposal, Land Fill
Tons: 115.4636
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

HWP:
EPA Id: CAD990663320
Cleanup Status: KNOWN GENERATORS
Latitude: 34.01919
Longitude: -117.3917
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: Not reported
Assembly District: 60
Senate District: 31
Public Information Officer: Not reported
Public Information Officer: Not reported

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BLOOMINGTON	S107736446	HIGH SCHOOL - CEDAR AVENUE	SANTA ANA AVENUE/CEDAR AVENUE	92316	ENVIROSTOR, SCH

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 09/14/2016
Date Data Arrived at EDR: 10/04/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/10/2016
Date Data Arrived at EDR: 10/20/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 78

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 10/10/2016
Date Data Arrived at EDR: 10/20/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 78
Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44
Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/13/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/15/2016
Date Data Arrived at EDR: 11/29/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/15/2016
Date Data Arrived at EDR: 11/29/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 43

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 10/31/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 10/31/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/15/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 66

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/15/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 37

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 105

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 112
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/24/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

SLIC: Statewide SLIC Cases

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 40

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 12/03/2015
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 120
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52
Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35
Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/24/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 119

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 10/31/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/27/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 01/03/2017
Date Data Arrived at EDR: 01/04/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 57
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 01/04/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/19/2016
Date Data Arrived at EDR: 12/20/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 78
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 08/25/2016
Date Data Arrived at EDR: 08/26/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 49
Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/13/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176
Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 36
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 10/31/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 78
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 08/31/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 34
Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27
Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 12/05/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 67
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/01/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 35

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/27/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/24/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/06/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 45

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 37

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 83

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/25/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 37

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 37

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 10/11/2016
Date Data Arrived at EDR: 11/16/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 02/15/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/10/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/23/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133
Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77
Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74
Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 81
Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35
Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/10/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 127
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 02/17/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 02/17/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/29/2016
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 35
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/06/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/01/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 77

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2016
Date Data Arrived at EDR: 09/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 22

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/03/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/03/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/15/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 65

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 91

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 01/20/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 64

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/27/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 79

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 09/23/2016
Date Made Active in Reports: 10/24/2016
Number of Days to Update: 31

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/23/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 12/06/2016
Date Data Arrived at EDR: 12/09/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 40

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/25/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 63

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/13/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 64

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 62

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 62

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/11/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/13/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 86
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/15/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 107
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/15/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/06/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/03/2017
Number of Days to Update: 87
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 78
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 12/22/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 70
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/16/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/17/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/13/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 12/11/2016
Date Data Arrived at EDR: 12/20/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/20/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 73

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/14/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 35

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/06/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/10/2016
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 90

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 11/10/2016
Date Data Arrived at EDR: 12/13/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 9

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 10/21/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 23

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/27/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/17/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/26/2017
Number of Days to Update: 65

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 11/01/2016
Date Data Arrived at EDR: 11/03/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 19

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/22/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 55

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/03/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/10/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 51

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 01/23/2017
Date Data Arrived at EDR: 01/25/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 36

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 63

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/14/2016
Date Data Arrived at EDR: 12/16/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 6

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/18/2017
Date Data Arrived at EDR: 01/20/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 41

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 66

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 10/18/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 58

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/18/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 56

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 68
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/04/2016
Date Data Arrived at EDR: 10/11/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 93
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 12/09/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 41
Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 10/19/2016
Date Data Arrived at EDR: 10/25/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 79
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 42

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/05/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 17

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/24/2016
Date Data Arrived at EDR: 06/27/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 43

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 44

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/03/2016
Date Data Arrived at EDR: 11/11/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/04/2016
Date Data Arrived at EDR: 11/11/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/03/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 65

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/07/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/19/2017
Date Data Arrived at EDR: 01/25/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 36

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/19/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/20/2016
Date Data Arrived at EDR: 10/25/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 77
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/19/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 56
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/08/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 56
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 12/09/2016
Date Data Arrived at EDR: 12/13/2016
Date Made Active in Reports: 03/03/2017
Number of Days to Update: 80
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 10/05/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 86
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/10/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 52
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/21/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/14/2017
Number of Days to Update: 49
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/17/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 15
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/16/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 76
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/10/2016
Date Made Active in Reports: 01/24/2017
Number of Days to Update: 75
Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59
Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 12/13/2016
Date Data Arrived at EDR: 12/16/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 76
Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/21/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 1
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/22/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 19
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 12/22/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 65

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 55

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 35

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/25/2017
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 34

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 82

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/30/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/13/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 01/24/2017
Number of Days to Update: 89

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/28/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 29

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 55

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 01/03/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List

CUPA facility listing for Yuba County.

Date of Government Version: 10/28/2016
Date Data Arrived at EDR: 11/03/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 42

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/11/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 01/03/2017
Number of Days to Update: 96

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/30/2017
Date Data Arrived at EDR: 02/01/2017
Date Made Active in Reports: 02/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/01/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 07/22/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 123

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/12/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/13/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

AMCP - NORTHWESTERN PARCELS
1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

TARGET PROPERTY COORDINATES

Latitude (North):	34.032407 - 34° 1' 56.67''
Longitude (West):	117.391178 - 117° 23' 28.24''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	463888.4
UTM Y (Meters):	3765623.8
Elevation:	927 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5619058 FONTANA, CA
Version Date:	2012
Northeast Map:	5620416 SAN BERNARDINO SOUTH, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

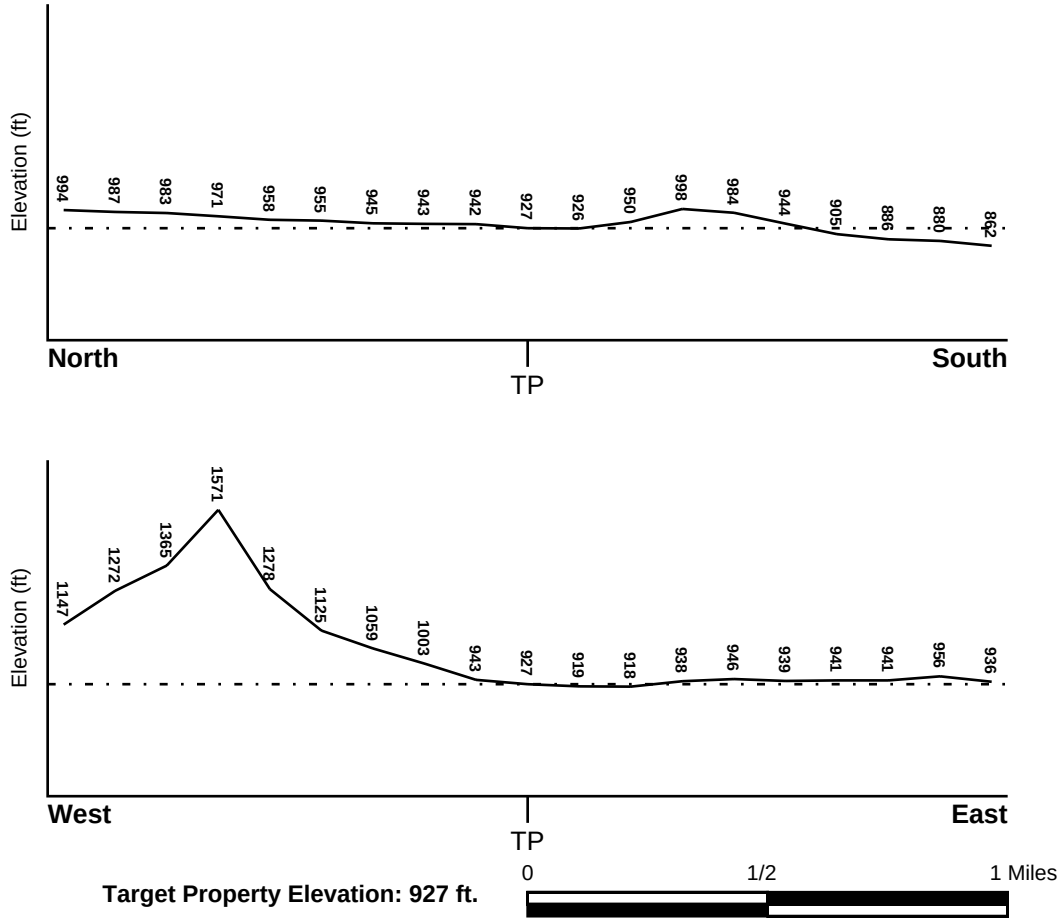
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06065C0045G	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06071C8666H	FEMA FIRM Flood data
06065C0065G	FEMA FIRM Flood data
06065C0043G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
FONTANA	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Location Relative to TP:	1/4 - 1/2 Mile South
Site Name:	Riverside Cement Co Crestmore Plt
Site EPA ID Number:	CAD063844443
Groundwater Flow Direction:	SW ON A REGIONAL BASIS.
Measured Depth to Water:	not available, but a well 2,000 feet east of the site had a water level of 800 feet above mean sea level.
Hydraulic Connection:	Information is not available about the hydraulic connection between aquifer(s) underlying the site.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information is inferred in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW

* ©1996 Site--specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
3	1/4 - 1/2 Mile South	Varies

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

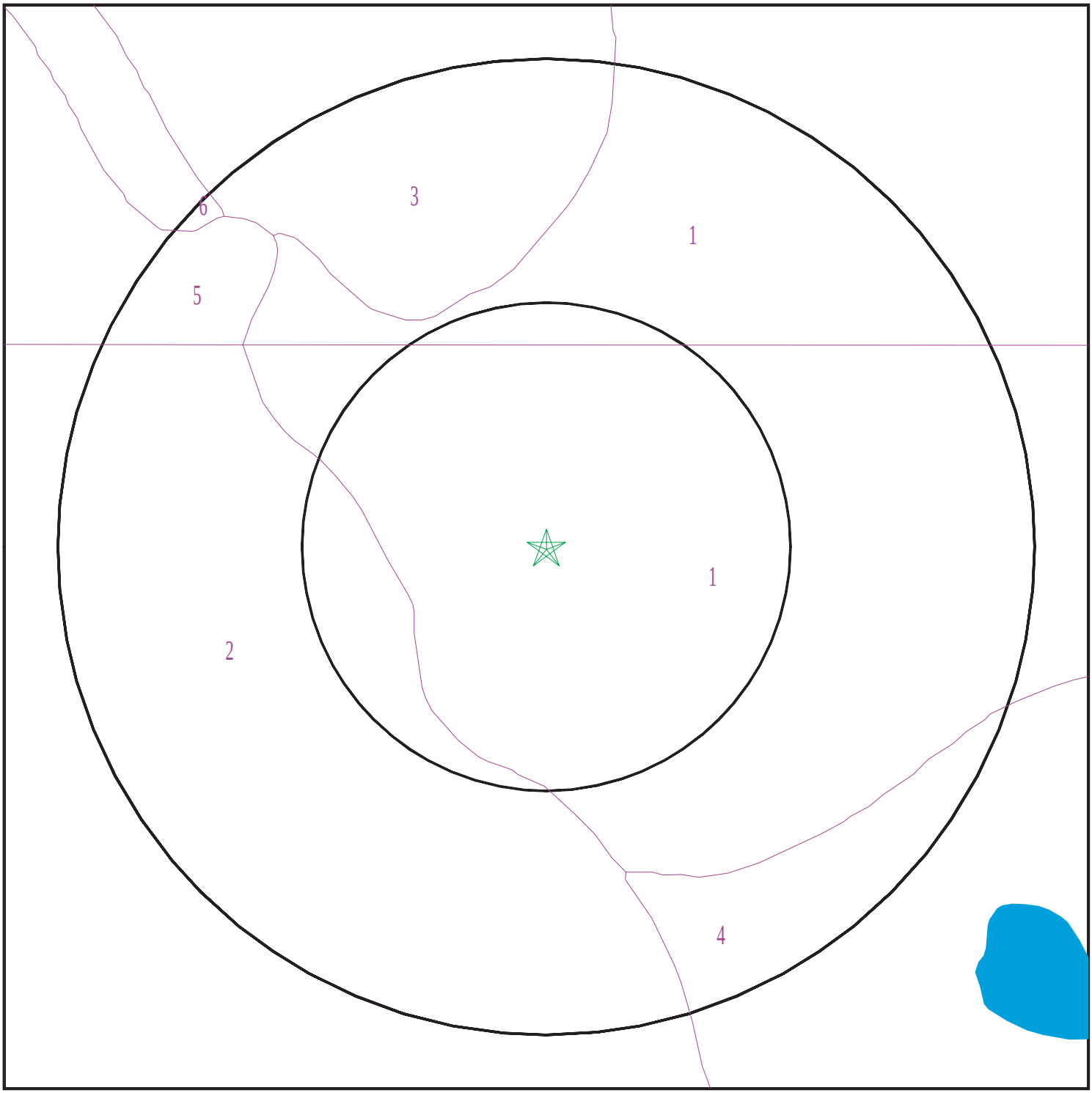
Era:	Paleozoic
System:	Pennsylvanian
Series:	Upper Paleozoic
Code:	uPze *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Eugeosynclinal Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 4878892.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	AMCP - Northwestern Parcels	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Drew Lassen
LAT/LONG:	34.032407 / 117.391178	INQUIRY #:	4878892.2s
		DATE:	March 14, 2017 2:35 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: DELHI

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	18 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 5.6
2	18 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1

Soil Map ID: 2

Soil Component Name: HANFORD

Soil Surface Texture: coarse sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6
2	7 inches	40 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6
3	40 inches	59 inches	stratified loamy sand to coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6

Soil Map ID: 3

Soil Component Name: TUJUNGA

Soil Surface Texture: gravelly loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	35 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1
2	35 inches	59 inches	gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1

Soil Map ID: 4

Soil Component Name: DELHI

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
2	9 inches	48 inches	sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
3	48 inches	59 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1

Soil Map ID: 5

Soil Component Name: Hanford

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
2	11 inches	59 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 5.6

Soil Map ID: 6

Soil Component Name: TUJUNGA

Soil Surface Texture: gravelly loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	18 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	18 inches	59 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
B7	USGS40000139986	1/2 - 1 Mile NE
10	USGS40000140063	1/2 - 1 Mile North

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

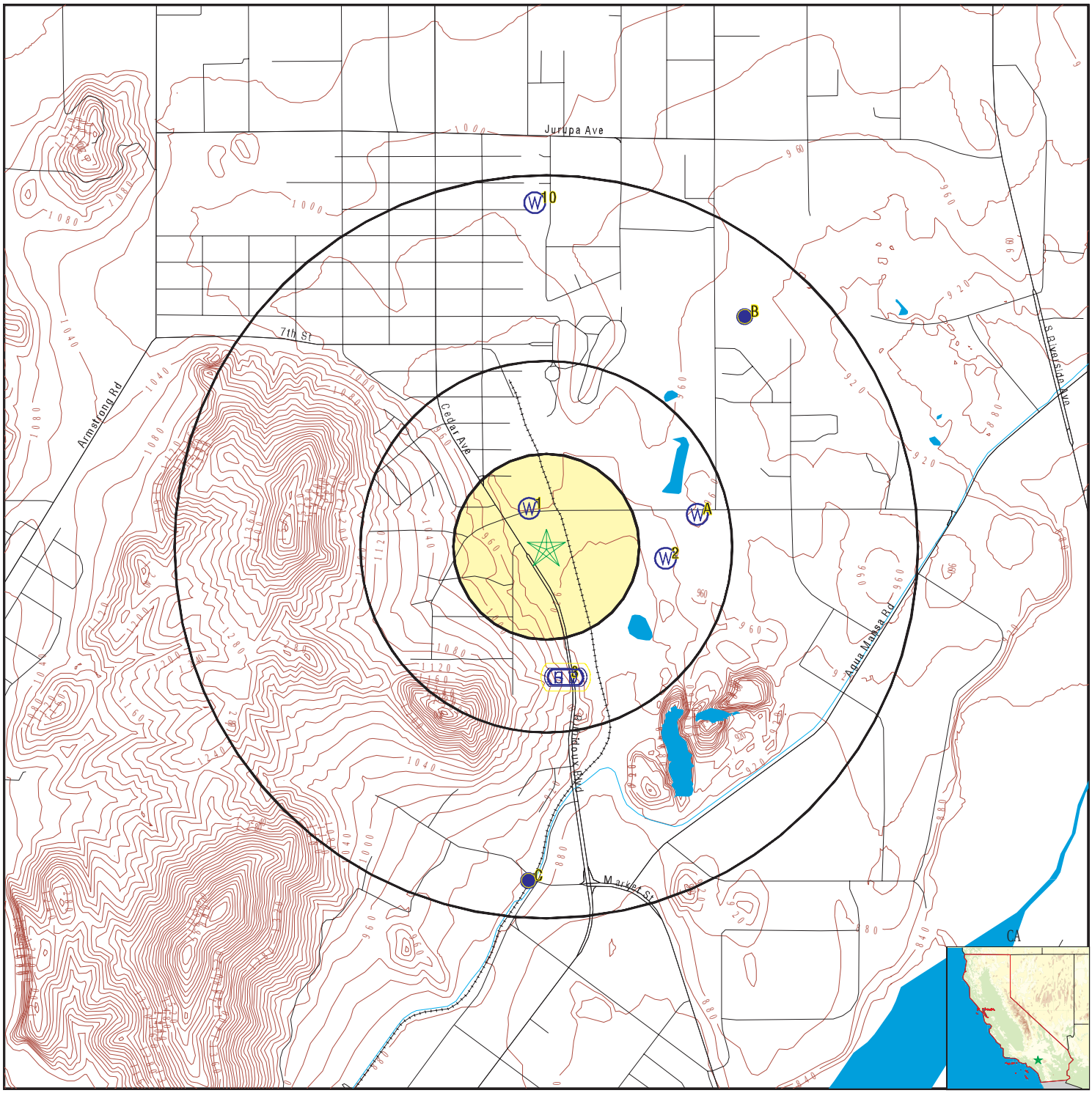
MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	2493	0 - 1/8 Mile NNW
2	2492	1/4 - 1/2 Mile East
A4	18724	1/4 - 1/2 Mile East
A5	CADW60000003294	1/4 - 1/2 Mile ENE
B6	CADW60000033917	1/2 - 1 Mile NE
C8	2499	1/2 - 1 Mile South

PHYSICAL SETTING SOURCE MAP - 4878892.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	AMCP - Northwestern Parcels	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Drew Lassen
LAT/LONG:	34.032407 / 117.391178	INQUIRY #:	4878892.2s
		DATE:	March 14, 2017 2:35 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
NNW
0 - 1/8 Mile
Higher

CA WELLS **2493**

Water System Information:

Prime Station Code:	02S/05W-03B02 S	User ID:	33C
FRDS Number:	3301173001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340202.0 1172328.0	Precision:	100 Feet (one Second)
Source Name:	WELL 01		
System Number:	3301173		
System Name:	CRESTMORE HEIGHTS MWC		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

2
East
1/4 - 1/2 Mile
Higher

CA WELLS **2492**

Water System Information:

Prime Station Code:	02S/05W-03B01 S	User ID:	33C
FRDS Number:	3301551001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340155.0 1172305.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01 DOMESTIC - MAIN		
System Number:	3301551		
System Name:	RIVERSIDE CEMENT CO		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		
Sample Collected:	16-SEP-09	Findings:	4.98 PCI/L
Chemical:	GROSS ALPHA		

3
South
1/4 - 1/2 Mile
Higher

Site ID:	083301366T
Groundwater Flow:	Varies
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	80
Date:	07/07/1995

AQUIFLOW **50768**

A4
East
1/4 - 1/2 Mile
Higher

CA WELLS **18724**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Water System Information:

Prime Station Code:	3610004-031	User ID:	TAN
FRDS Number:	3610004031	County:	San Beernardino
District Number:	13	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340200.0 1172300.0	Precision:	Undefined
Source Name:	WELL 41		
System Number:	3610004		
System Name:	WEST SAN BERNARDINO CWD		
Organization That Operates System:			
	PO BOX 920		
	RIALTO, CA 92376-0920		
Pop Served:	41454	Connections:	15052
Area Served:	RIALTO-BLOOMINGTON		
Sample Collected:	26-JAN-11	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	23-FEB-11	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	23-MAR-11	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-MAR-11	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	20-APR-11	Findings:	0.7 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-MAY-11	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-JUN-11	Findings:	20. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	29-JUN-11	Findings:	380. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	29-JUN-11	Findings:	8.
Chemical:	PH, LABORATORY		
Sample Collected:	29-JUN-11	Findings:	150. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	29-JUN-11	Findings:	180. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	29-JUN-11	Findings:	160. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	29-JUN-11	Findings:	52. MG/L
Chemical:	CALCIUM		
Sample Collected:	29-JUN-11	Findings:	8.8 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	29-JUN-11	Findings:	14. MG/L
Chemical:	SODIUM		
Sample Collected:	29-JUN-11	Findings:	1.6 MG/L
Chemical:	POTASSIUM		

Sample Collected:	29-JUN-11	Findings:	8.6 MG/L
Chemical:	CHLORIDE		
Sample Collected:	29-JUN-11	Findings:	23. MG/L
Chemical:	SULFATE		
Sample Collected:	29-JUN-11	Findings:	0.35 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	29-JUN-11	Findings:	8.1 UG/L
Chemical:	VANADIUM		
Sample Collected:	29-JUN-11	Findings:	260. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	29-JUN-11	Findings:	1.1
Chemical:	LANGELIER INDEX @ 60 C		
Sample Collected:	29-JUN-11	Findings:	0.49
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	29-JUN-11	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	29-JUN-11	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	29-JUN-11	Findings:	3300. MG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	28-JUL-11	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-AUG-11	Findings:	2.6 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	21-SEP-11	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-SEP-11	Findings:	4.8 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	31-OCT-11	Findings:	0.7 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-NOV-11	Findings:	1.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	15-DEC-11	Findings:	5. UNITS
Chemical:	COLOR		
Sample Collected:	15-DEC-11	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	15-DEC-11	Findings:	1.9 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-JAN-12	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-MAR-12	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-MAR-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		

Sample Collected:	10-APR-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	23-MAY-12	Findings:	1.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-JUN-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-JUN-12	Findings:	14. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-JUL-12	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-SEP-12	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	26-SEP-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	30-OCT-12	Findings:	0.6 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	28-NOV-12	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	13-DEC-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	13-DEC-12	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	22-FEB-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	21-MAR-13	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-MAR-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-APR-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	05-JUN-13	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	31-JUL-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	15-AUG-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	23-SEP-13	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-SEP-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-OCT-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-NOV-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		

Sample Collected:	13-DEC-13	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	13-DEC-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	15-JAN-14	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-FEB-14	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	20-MAR-14	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-MAR-14	Findings:	1. NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-APR-14	Findings:	280. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	24-APR-14	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-APR-14	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	21-MAY-14	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-MAY-14	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04-JUN-14	Findings:	20. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	04-JUN-14	Findings:	410. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	04-JUN-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	04-JUN-14	Findings:	160. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	04-JUN-14	Findings:	190. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	04-JUN-14	Findings:	170. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	04-JUN-14	Findings:	51. MG/L
Chemical:	CALCIUM		
Sample Collected:	04-JUN-14	Findings:	11. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	04-JUN-14	Findings:	15. MG/L
Chemical:	SODIUM		
Sample Collected:	04-JUN-14	Findings:	1.8 MG/L
Chemical:	POTASSIUM		
Sample Collected:	04-JUN-14	Findings:	11. MG/L
Chemical:	CHLORIDE		

Sample Collected:	04-JUN-14	Findings:	28. MG/L
Chemical:	SULFATE		
Sample Collected:	04-JUN-14	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	04-JUN-14	Findings:	2.1 UG/L
Chemical:	ARSENIC		
Sample Collected:	04-JUN-14	Findings:	6.2 UG/L
Chemical:	VANADIUM		
Sample Collected:	04-JUN-14	Findings:	250. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	04-JUN-14	Findings:	0.84
Chemical:	LANGELIER INDEX @ 60 C		
Sample Collected:	04-JUN-14	Findings:	0.23
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	04-JUN-14	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-JUN-14	Findings:	12.04
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	04-JUN-14	Findings:	3700. MG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	17-JUL-14	Findings:	270. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	17-JUL-14	Findings:	19. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	17-JUL-14	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	08-AUG-14	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-AUG-14	Findings:	0.8 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	25-SEP-14	Findings:	2.7 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	25-SEP-14	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-DEC-14	Findings:	3.1 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	08-DEC-14	Findings:	19. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-DEC-14	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-JAN-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	29-JAN-15	Findings:	0.6 NTU
Chemical:	TURBIDITY, LABORATORY		

Sample Collected:	24-FEB-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-FEB-15	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	17-MAR-15	Findings:	2.6 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	17-MAR-15	Findings:	1.5 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	17-MAR-15	Findings:	1.4 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	17-MAR-15	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	17-MAR-15	Findings:	0.61 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	17-MAR-15	Findings:	1.4 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	17-MAR-15	Findings:	0.88 PCI/L
Chemical:	URANIUM MDA95		
Sample Collected:	17-MAR-15	Findings:	0.643 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	17-MAR-15	Findings:	0.2 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	17-MAR-15	Findings:	9.2e-002 PCI/L
Chemical:	RA-226 OR TOTAL RA BY 903.0 C.E.		
Sample Collected:	17-MAR-15	Findings:	0.47 PCI/L
Chemical:	RADIUM, TOTAL, MDA95-NTNC ONLY, BY 903.0		
Sample Collected:	22-APR-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	22-APR-15	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	20-MAY-15	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-MAY-15	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	22-JUN-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	22-JUN-15	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	22-JUL-15	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-AUG-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-AUG-15	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		

Sample Collected:	16-SEP-15	Findings:	2.6 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	16-SEP-15	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-OCT-15	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-NOV-15	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-NOV-15	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-JAN-16	Findings:	3.7 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	06-JAN-16	Findings:	2.7 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	03-FEB-16	Findings:	3.8 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	28-MAR-16	Findings:	4.6 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	28-MAR-16	Findings:	1.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	12-APR-16	Findings:	4.2 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-APR-16	Findings:	3. UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	12-APR-16	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	03-MAY-16	Findings:	3.9 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	22-JUN-16	Findings:	250. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	22-JUN-16	Findings:	4.1 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	20-JUL-16	Findings:	3.9 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	20-JUL-16	Findings:	3. UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	20-JUL-16	Findings:	250. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	02-AUG-16	Findings:	4.3 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	02-AUG-16	Findings:	260. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06-SEP-16	Findings:	4.3 MG/L
Chemical:	NITRATE (AS N)		

Sample Collected:	06-SEP-16	Findings:	270. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06-SEP-16	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		

A5
ENE
1/4 - 1/2 Mile
Higher

CA WELLS **CADW60000003294**

Objectid:	3294
Latitude:	34.034
Longitude:	-117.384
Site code:	340340N1173840W001
State well numbe:	03S03W03A001S
Local well name:	'El Rivino'
Well use id:	1
Well use descrip:	Observation
County id:	33
County name:	Riverside
Basin code:	'8-2.03'
Basin desc:	Riverside-Arlington
Dwr region id:	80238
Dwr region:	Southern Region Office
Site id:	CADW60000003294

B6
NE
1/2 - 1 Mile
Higher

CA WELLS **CADW60000033917**

Objectid:	33917
Latitude:	34.0414
Longitude:	-117.3823
Site code:	340414N1173823W001
State well numbe:	01S05W35E001S
Local well name:	''
Well use id:	6
Well use descrip:	Unknown
County id:	36
County name:	San Bernardino
Basin code:	'8-2.03'
Basin desc:	Riverside-Arlington
Dwr region id:	80238
Dwr region:	Southern Region Office
Site id:	CADW60000033917

B7
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000139986**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340229117225001		
Monloc name:	001S005W35E001S		
Monloc type:	Well		
Monloc desc:	ORIGINAL DEPTH 280 FT,SOUNDED 147 FT 2/22/96		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0414022
Longitude:	-117.3814346	Sourcemap scale:	24000
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	945
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	19520710	Welldepth:	147
Welldepth units:	ft	Wellholedepth:	300
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 20

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
2004-10-26	123.04		2004-08-11	123.54	
2004-04-19	121.90		2003-10-21	121.69	
2003-04-22	120.38		2002-10-30	121.94	
2002-04-10	120.67		2001-10-24	121.24	
2001-04-17	120.21		2000-10-23	119.80	
2000-04-18	118.55		1999-10-21	120.32	
1999-04-13	116.03		1998-10-20	117.07	
1998-04-15	115.93		1997-10-29	116.83	
1997-04-17	115.10		1996-10-09	114.75	
1996-04-24	112.60		1996-02-22	112.00	

C8
South
1/2 - 1 Mile
Lower

CA WELLS **2499**

Water System Information:

Prime Station Code:	02S/05W-10C01 S	User ID:	33C
FRDS Number:	3301109001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340110.0 1172329.0	Precision:	100 Feet (one Second)
Source Name:	WELL 02 INDUSTRIAL		
System Number:	3301109		
System Name:	CERTAINTEED PRODUCTS		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C9
South
1/2 - 1 Mile
Lower

		AQUIFLOW	**67279**
Site ID:	083300480T		
Groundwater Flow:	Not Reported		
Shallow Water Depth:	Not Reported		
Deep Water Depth:	Not Reported		
Average Water Depth:	50		
Date:	09/18/1991		

10
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000140063**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340245117232701		
Monloc name:	001S005W34B002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0458464
Longitude:	-117.3917128	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	987
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	240
Welldepth units:	ft	Wellholedepth:	240
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 116

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1986-12-01	156.0		1986-11-01	159.0	
1986-10-01	152.0		1986-09-01	156.0	
1986-08-01	155.0		1986-07-01	156.0	
1986-06-26	184.26		1986-06-01	156.0	
1986-05-01	156.0		1986-04-01	156.0	
1986-03-12	181.60				
Note: Other conditions existed that would affect the measured water level.					
1986-03-01	158.0		1986-02-01	157.0	
1986-01-02	157.0		1985-12-02	156.0	
1985-11-01	156.0		1985-10-01	158.0	
1985-09-03	160.0		1985-08-01	159.7	
1985-07-01	160.0		1985-06-03	159.1	
1985-05-23	156.0		1985-05-01	158.5	
1985-04-01	158.7		1985-03-01	159.0	
1985-02-01	159.2		1985-01-02	160.0	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel
1984-12-03	160.2	
1984-10-01	160.0	
1984-08-01	160.0	
1984-06-01	160.7	
1984-04-02	158.0	
1984-02-01	160.2	
1983-11-01	158.9	
1983-08-01	159.7	
1983-06-01	161.5	
1983-04-01	163.0	
1983-02-01	167.9	
1982-12-01	164.0	
1982-10-01	163.2	
1982-08-02	164.5	
1982-06-01	164.1	
1982-04-01	164.8	
1982-02-01	166.5	
1981-12-01	163.0	
1981-10-01	163.0	
1981-08-04	163.0	
1981-06-02	163.0	
1981-04-02	164.0	
1981-02-04	164.0	
1980-12-03	164.0	
1980-10-03	161.0	
1980-08-02	161.0	
1980-06-02	160.0	
1980-04-02	161.0	
1980-02-04	163.0	
1979-12-03	164.0	
1979-10-03	165.0	
1979-07-01	168.0	
1979-05-01	168.0	
1979-03-01	171.0	
1979-01-01	164.0	
1978-11-01	164.0	
1978-09-01	163.0	
1978-07-01	164.0	
1978-04-01	170.0	
1950-12-04		
Note: The site was being pumped.		
1949-12-15	113.1	
1946-03-25	135.1	
1945-03-19	135.9	
1944-04-04	137.1	
1943-05-04	139.7	

Date	Feet below Surface	Feet to Sealevel
1984-11-01	161.0	
1984-09-04	160.2	
1984-07-02	157.9	
1984-05-01	157.9	
1984-03-01	159.9	
1983-12-01	158.3	
1983-09-01	159.2	
1983-07-01	159.7	
1983-05-02	162.5	
1983-03-01	163.0	
1983-01-03	164.0	
1982-11-01	164.0	
1982-09-01	165.2	
1982-07-01	164.7	
1982-05-03	164.7	
1982-03-01	165.3	
1982-01-02	163.0	
1981-11-02	163.0	
1981-09-04	163.0	
1981-07-02	163.0	
1981-05-02	164.0	
1981-03-03	164.0	
1981-01-02	164.0	
1980-11-03	163.0	
1980-09-02	161.0	
1980-07-02	161.0	
1980-05-02	161.0	
1980-03-03	162.0	
1980-01-02	164.0	
1979-11-02	163.0	
1979-09-01	167.0	
1979-06-01	167.0	
1979-04-01	170.0	
1979-02-01	170.0	
1978-12-01	163.0	
1978-10-01	165.0	
1978-08-01	164.0	
1978-05-01	168.0	
1978-03-01	173.0	
1947-03-25	133.8	
1945-12-31	135.8	
1944-11-28	137.5	
1944-01-07	139.2	
1943-01-14	138.7	

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92509	12	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 92509

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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AMCP - Southern Parcel
1500 Rubidoux Blvd
Riverside, CA 92509

Inquiry Number: 4878973.2s
March 14, 2017

The EDR Radius Map™ Report with GeoCheck®

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Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	182
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-6
Physical Setting Source Map	A-12
Physical Setting Source Map Findings	A-14
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

COORDINATES

Latitude (North):	34.0248170 - 34° 1' 29.34''
Longitude (West):	117.3822480 - 117° 22' 56.09''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	464709.6
UTM Y (Meters):	3764779.0
Elevation:	911 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5619058 FONTANA, CA
Version Date:	2012
Northeast Map:	5620416 SAN BERNARDINO SOUTH, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	RIVERSIDE CEMENT CRE	1500 RUBIDOUX BLVD.	AST		TP
A2	RIVERSIDE CEMENT/TXI	1500 RUBEDOUX BLVD	HAZNET		TP
A3	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD	AST		TP
A4	TXI RIVERSIDE CEMENT	1500 RUBIDOUX BOULEV	FINDS, ECHO		TP
A5	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD	HAZNET		TP
A6	PANTHER IRON COMPANY	1500 RUBIDOUX BLVD	HAZNET		TP
A7	RIVERSIDE CEMENT CO	1500 RUBIDOUX BLVD	FINDS		TP
A8	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD	RGA LUST		TP
A9	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEV	RGA LUST		TP
A10	RIVERSIDE CEMENT CO	1500 RUBIDOUX BLVD	SEMS, ICIS, US AIRS		TP
A11	RIVERSIDE CEMENT CO	1500 RUBIDOUX BLVD	ENVIROSTOR, LUST, WMUDS/SWAT, LDS, EMI, HIST...		TP
A12	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD	SWEEPS UST, CA FID UST		TP
A13	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD.	TSCA		TP
A14	RIVERSIDE CEMENT CO	1500 RUBIDOUX BL	HIST UST, EMI		TP
B15	FERRELLGAS LP DBA BL	1750 AGUA MANSA RD	RCRA-SQG	Lower	132, 0.025, SSW
B16	RA NELSON MRF TRANSF	1830 AGUA MANSA RD	SWF/LF, SWRCY, NPDES, PROC	Lower	276, 0.052, SW
B17	ROBERT A. NELSON TRA	1830 AGUA MANSA RD.	SWF/LF, HAZNET	Lower	276, 0.052, SW
B18	AGUA MANSA MRF, LLC	1830 AGUA MANSA ROAD	RCRA-LQG, FINDS	Lower	276, 0.052, SW
B19	BURRTEC WASTE INDUST	1830 AGUA MANSA RD	AST	Lower	276, 0.052, SW
B20	BURRTEC WASTE INDUST	1850 AGUA MANSA RD	AST	Lower	307, 0.058, SW
B21	BURRTEC WASTE INDUST	1850 ASUA MANSA RD	RCRA-SQG, FINDS, HAZNET, ECHO	Lower	307, 0.058, SW
B22	BURRTEC WASTE INDUST	1850 AGUA MANSA RD	UST	Lower	307, 0.058, SW
C23	SKANSKA-MAIN OFFICE	1995 AGUA MANSA RD	AST, HAZNET	Lower	693, 0.131, SW
C24	SKANSKA	1995 AGUA MANSA RD	UST	Lower	693, 0.131, SW
C25	E L YEAGER CONSTRUCT	1995 AGUA MANSA RD	SWEEPS UST, CA FID UST, EMI, NPDES, WDS	Lower	693, 0.131, SW
D26	RYDER TRANSPORTATION	5880 20TH ST	UST	Lower	884, 0.167, WSW
D27	RYDER TRANSPORTATION	5880 20TH ST.	AST	Lower	884, 0.167, WSW
D28	RYDER TRUCK RENTALS,	5880 20TH STREET	SLIC	Lower	884, 0.167, WSW
D29	RYDER TRUCK RENTAL	5880 20TH ST	RCRA-SQG, SLIC, SWEEPS UST, HIST UST, CA FID UST,...	Lower	884, 0.167, WSW
30	CLUB CAR LLC	1203 HALL AVE	RCRA-SQG, ECHO	Higher	1196, 0.227, NE
31	NATIONSRENT, INC.	2215 VIA CERRO	UST	Lower	1214, 0.230, South
E32	FLYERS #469	5840 20TH ST	UST	Lower	1287, 0.244, SW
E33	FLYERS #469	5840 20TH STREET	RCRA-CESQG	Lower	1287, 0.244, SW
F34	CAN FIBRE	1755 BROWN AVENUE	RCRA-SQG, FINDS, HAZNET, NPDES, ECHO	Lower	1288, 0.244, ESE
F35	SOUTHLAND ENGINEERIN	1755 BROWN ST.	AST	Lower	1288, 0.244, ESE
F36	INLAND EMPIRE TRUSS	1755 BROWN AVE	SWF/LF, NPDES, WDS	Lower	1288, 0.244, ESE
37	VARNER CONSTRUCTION	1893 BROWN AVE	RCRA-SQG, LUST, FINDS, HAZNET, ECHO	Higher	1318, 0.250, East
38	BRINE FAC,CRESTMORE	2100 AVALON ST.	WMUDS/SWAT	Lower	1543, 0.292, SW
39	FLEETWOOD VIA RICARD	5300 VIA RICARDO	LUST, NPDES	Lower	2036, 0.386, SSE

MAPPED SITES SUMMARY

Target Property Address:
1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
G40	CERTAINTEED CORPORAT	2100 AVALON STREET	HAZNET, HWP	Higher	2250, 0.426, WSW
G41	CERTAINTEED, RIVERSI	2100 AVALON ST	HIST Cal-Sites	Higher	2250, 0.426, WSW
G42	CERTAINTEED CORP	2100 AVALON ST.	RCRA-SQG, RESPONSE, ENVIROSTOR, LUST, HIST UST,...	Higher	2250, 0.426, WSW
G43	CERTAIN-TEED CORPORA	2100 AVALON	LUST, HIST CORTESE, NPDES	Higher	2250, 0.426, WSW
H44	INLAND CONCRETE	2434	LUST, WMUDS/SWAT, HIST UST, CA FID UST, HIST...	Lower	2471, 0.468, SW
H45	INLAND CONCRETE ENTE	2434 RUBIDOUX BLVD	LUST, SWEEPS UST, FINDS, WDS	Lower	2471, 0.468, SW
46	RIOS RECYCLING FACIL	5190 WILSON ST.	SWF/LF	Lower	2637, 0.499, SE
47	SIERRA ALUMINUM CO.	2345 FLEETWOOD DRIVE	ENVIROSTOR, CHMIRS, NPDES	Lower	3224, 0.611, SSE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
RIVERSIDE CEMENT CRE 1500 RUBIDOUX BLVD. RIVERSIDE, CA	AST	N/A
RIVERSIDE CEMENT/TXI 1500 RUBEDOUX BLVD RIVERSIDE, CA 92502	HAZNET GEPAID: CAC001472088	N/A
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	AST	N/A
TXI RIVERSIDE CEMENT 1500 RUBIDOUX BOULEV RIVERSIDE, CA 92509	FINDS Registry ID:: 110001199587 ECHO	N/A
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	HAZNET GEPAID: CAD063844443	N/A
PANTHER IRON COMPANY 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	HAZNET GEPAID: CAC002584294	N/A
RIVERSIDE CEMENT CO 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	FINDS Registry ID:: 110041108565	N/A
RIVERSIDE CEMENT 1500 RUBIDOUX BLVD RIVERSIDE, CA	RGA LUST	N/A
RIVERSIDE CEMENT 1500 RUBIDOUX BOULEV RIVERSIDE, CA	RGA LUST	N/A
RIVERSIDE CEMENT CO 1500 RUBIDOUX BLVD RIVERSIDE, CA 92502	SEMS	CAD063844443

	Site ID: 0901505 EPA Id: CAD063844443	
	ICIS FRS ID:: 110001199587	
	US AIRS Database: US AIRS (AFS), Date of Government Version: 10/12/2016 EPA plant ID:: 110001199587	
RIVERSIDE CEMENT CO 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	ENVIROSTOR Facility Id: 33140002 Status: Refer: RWQCB	N/A
	LUST Database: LUST REG 8, Date of Government Version: 02/14/2005 Database: LUST, Date of Government Version: 12/12/2016 Database: RIVERSIDE CO. LUST, Date of Government Version: 01/19/2017 Status: Completed - Case Closed Facility Status: Case Closed Facility Id: 89210 Global Id: T0606500166 Facility Status: 9 Global ID: T0606500166	
	WMUDS/SWAT LDS Global Id: L10003541579 Status: Completed - Case Closed	
	EMI Facility Id: 800182	
	HIST CORTESE Reg Id: 083301366T	
	NPDES Facility Status: Terminated	
	WDS Facility Status: A Facility Id: 8 33I002053	
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	SWEEPS UST Status: A Tank Status: A Comp Number: 65436	N/A
	CA FID UST Facility Id: 33003042 Status: A	
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD. RIVERSIDE, CA 92509	TSCA	N/A
RIVERSIDE CEMENT CO 1500 RUBIDOUX BL RIVERSIDE, CA 92509	HIST UST	N/A

EXECUTIVE SUMMARY

Facility Id: 00000065436

EMI
Facility Id: 800182

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---- Underground Storage Tank Listing
INDIAN UST ---- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP ---- Voluntary Cleanup Program Properties
INDIAN VCP ---- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

HAULERS ---- Registered Waste Tire Haulers Listing
INDIAN ODI ---- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---- Open Dump Inventory
IHS OPEN DUMPS ---- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---- Delisted National Clandestine Laboratory Register
SCH ---- School Property Evaluation Program
CDL ---- Clandestine Drug Labs
Toxic Pits ---- Toxic Pits Cleanup Act Sites
US CDL ---- National Clandestine Laboratory Register

Local Land Records

LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information
DEED ---- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
CHMIRS ---- California Hazardous Material Incident Report System
MCS ---- Military Cleanup Sites Listing
SPILLS 90 ---- SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR ---- RCRA - Non Generators / No Longer Regulated
FUDS ---- Formerly Used Defense Sites

DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US MINES	Mines Master Index File
DOCKET HWC	Hazardous Waste Compliance Docket Listing
UXO	Unexploded Ordnance Sites
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
ICE	ICE
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
PEST LIC	Pesticide Regulation Licenses Listing
Notify 65	Proposition 65 Records
UIC	UIC Listing
WASTEWATER PITS	Oil Wastewater Pits Listing
WIP	Well Investigation Program Case List
FUELS PROGRAM	EPA Fuels Program Registered Listing
ABANDONED MINES	Abandoned Mines

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	EDR Exclusive Historic Gas Stations
EDR Hist Cleaner	EDR Exclusive Historic Dry Cleaners

EXECUTIVE SUMMARY

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---------- Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 12/12/2016 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AGUA MANSA MRF, LLC	***1830 AGUA MANSA ROAD***	***SW 0 - 1/8 (0.052 mi.)***	***B18***	***88***

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/12/2016 has revealed that there are 6 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CLUB CAR LLC	***1203 HALL AVE***	***NE 1/8 - 1/4 (0.227 mi.)***	***30***	***112***
VARNER CONSTRUCTION	***1893 BROWN AVE***	***E 1/8 - 1/4 (0.250 mi.)***	***37***	***124***

Lower Elevation	Address	Direction / Distance	Map ID	Page
FERRELLGAS LP DBA BL	1750 AGUA MANSA RD	SSW 0 - 1/8 (0.025 mi.)	B15	77

Lower Elevation	Address	Direction / Distance	Map ID	Page
BURRTEC WASTE INDUST	***1850 ASUA MANSA RD***	***SW 0 - 1/8 (0.058 mi.)***	***B21***	***93***
RYDER TRUCK RENTAL	***5880 20TH ST***	***WSW 1/8 - 1/4 (0.167 mi.)***	***D29***	***106***
CAN FIBRE	***1755 BROWN AVENUE***	***ESE 1/8 - 1/4 (0.244 mi.)***	***F34***	***116***

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 12/12/2016 has revealed that there is 1 RCRA-CESQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
FLYERS #469	5840 20TH STREET	SW 1/8 - 1/4 (0.244 mi.)	E33	114

State- and tribal - equivalent NPL

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED CORP	***2100 AVALON ST.***	***WSW 1/4 - 1/2 (0.426 mi.)***	***G42***	***142***

Database: RESPONSE, Date of Government Version: 10/31/2016
Status: Certified
Facility Id: 33320002

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 10/31/2016 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED CORP	***2100 AVALON ST.***	***WSW 1/4 - 1/2 (0.426 mi.)***	***G42***	***142***
Facility Id: 80001506				
Facility Id: 33320002				
Status: * Inactive				
Status: Certified				

Lower Elevation	Address	Direction / Distance	Map ID	Page
SIERRA ALUMINUM CO.	***2345 FLEETWOOD DRIVE***	***SSE 1/2 - 1 (0.611 mi.)***	***47***	***175***
Facility Id: 71002953				
Status: Inactive - Needs Evaluation				

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there are 4 SWF/LF sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RA NELSON MRF TRANSF	***1830 AGUA MANSA RD***	***SW 0 - 1/8 (0.052 mi.)***	***B16***	***78***
Database: SWF/LF (SWIS), Date of Government Version: 11/14/2016				
Facility ID: 33-AA-0258				
Facility ID: 33-AA-0319				
Operational Status: Active				
Regulation Status: Permitted				
Regulation Status: Notification				
ROBERT A. NELSON TRA	***1830 AGUA MANSA RD.***	***SW 0 - 1/8 (0.052 mi.)***	***B17***	***86***
Database: LOS ANGELES CO. LF, Date of Government Version: 10/17/2016				
Site ID: 2759				
Status: Active				
INLAND EMPIRE TRUSS	***1755 BROWN AVE***	***ESE 1/8 - 1/4 (0.244 mi.)***	***F36***	***121***
Database: LOS ANGELES CO. LF, Date of Government Version: 10/17/2016				
Site ID: 2748				
Status: Active				
RIOS RECYCLING FACIL	5190 WILSON ST.	SE 1/4 - 1/2 (0.499 mi.)	46	174
Database: SWF/LF (SWIS), Date of Government Version: 11/14/2016				
Facility ID: 33-AA-0355				
Operational Status: Active				
Regulation Status: Notification				

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 6 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VARNER CONSTRUCTION	***1893 BROWN AVE***	***E 1/8 - 1/4 (0.250 mi.)***	***37***	***124***
Database: LUST REG 8, Date of Government Version: 02/14/2005 Database: VENTURA CO. LUST, Date of Government Version: 05/29/2008 Database: LUST, Date of Government Version: 12/12/2016 Database: RIVERSIDE CO. LUST, Date of Government Version: 01/19/2017 Status: Completed - Case Closed Facility Status: Case Closed Facility Id: 95084 Facility Id: 95084 Status: Case Closed Global Id: T0606500417 Facility Status: 9 Global ID: T0606500417				
CERTAINTEED CORP	***2100 AVALON ST.***	***WSW 1/4 - 1/2 (0.426 mi.)***	***G42***	***142***
Database: LUST REG 8, Date of Government Version: 02/14/2005 Database: RIVERSIDE CO. LUST, Date of Government Version: 01/19/2017 Facility Status: Case Closed Facility Id: 91654 Facility Status: 9 Global ID: T0606500050				
CERTAIN-TEED CORPORA	***2100 AVALON***	***WSW 1/4 - 1/2 (0.426 mi.)***	***G43***	***159***
Database: LUST, Date of Government Version: 12/12/2016 Status: Completed - Case Closed Global Id: T0606500050				

Lower Elevation	Address	Direction / Distance	Map ID	Page
FLEETWOOD VIA RICARD	***5300 VIA RICARDO***	***SSE 1/4 - 1/2 (0.386 mi.)***	***39***	***131***
Database: LUST REG 8, Date of Government Version: 02/14/2005 Database: LUST, Date of Government Version: 12/12/2016 Database: RIVERSIDE CO. LUST, Date of Government Version: 01/19/2017 Status: Completed - Case Closed Facility Status: Preliminary site assessment underway Facility Id: 200420231 Global Id: T0606540693 Facility Status: 9 Global ID: T0606540693				
INLAND CONCRETE	***2434***	***SW 1/4 - 1/2 (0.468 mi.)***	***H44***	***163***
Database: LUST REG 8, Date of Government Version: 02/14/2005 Database: LUST, Date of Government Version: 12/12/2016 Database: RIVERSIDE CO. LUST, Date of Government Version: 01/19/2017 Status: Completed - Case Closed Facility Status: Leak being confirmed				

Facility Id: 9814657
Global Id: T0606500028
Global Id: T0606500551
Facility Status: 9
Global ID: T0606500551

INLAND CONCRETE ENTE ***2434 RUBIDOUX BLVD*** ***SW 1/4 - 1/2 (0.468 mi.)*** ***H45*** ***172***
Database: LUST REG 8, Date of Government Version: 02/14/2005
Facility Status: Case Closed
Global ID: T0606500028

SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the SLIC list, as provided by EDR, has revealed that there are 2 SLIC sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RYDER TRUCK RENTALS,	5880 20TH STREET	WSW 1/8 - 1/4 (0.167 mi.)	D28	106
Database: SLIC REG 8, Date of Government Version: 04/03/2008 Facility Status: Closed				
RYDER TRUCK RENTAL	***5880 20TH ST***	***WSW 1/8 - 1/4 (0.167 mi.)***	***D29***	***106***
Database: SLIC, Date of Government Version: 12/12/2016 Facility Status: Completed - Case Closed Global Id: SLT8R1734113				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 5 UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BURRTEC WASTE INDUST	1850 AGUA MANSA RD	SW 0 - 1/8 (0.058 mi.)	B22	96
Database: UST, Date of Government Version: 09/12/2016 Database: RIVERSIDE CO. UST, Date of Government Version: 10/20/2016 Facility Id: 123				
SKANSKA	1995 AGUA MANSA RD	SW 1/8 - 1/4 (0.131 mi.)	C24	99
Database: UST, Date of Government Version: 09/12/2016 Database: RIVERSIDE CO. UST, Date of Government Version: 10/20/2016 Facility Id: 290				
RYDER TRANSPORTATION	5880 20TH ST	WSW 1/8 - 1/4 (0.167 mi.)	D26	105
Database: UST, Date of Government Version: 09/12/2016 Database: RIVERSIDE CO. UST, Date of Government Version: 10/20/2016				

Facility Id: 660

NATIONSRENT, INC. 2215 VIA CERRO S 1/8 - 1/4 (0.230 mi.) 31 114
Database: UST, Date of Government Version: 09/12/2016
Facility Id: 540

FLYERS #469 5840 20TH ST SW 1/8 - 1/4 (0.244 mi.) E32 114
Database: RIVERSIDE CO. UST, Date of Government Version: 10/20/2016

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, and dated 07/06/2016 has revealed that there are 5 AST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BURRTEC WASTE INDUST	1830 AGUA MANSA RD	SW 0 - 1/8 (0.052 mi.)	B19	92
BURRTEC WASTE INDUST	1850 AGUA MANSA RD	SW 0 - 1/8 (0.058 mi.)	B20	92
SKANSKA-MAIN OFFICE	***1995 AGUA MANSA RD***	***SW 1/8 - 1/4 (0.131 mi.)***	***C23***	***97***
RYDER TRANSPORTATION	5880 20TH ST.	WSW 1/8 - 1/4 (0.167 mi.)	D27	105
SOUTHLAND ENGINEERIN	1755 BROWN ST.	ESE 1/8 - 1/4 (0.244 mi.)	F35	121

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there are 2 WMUDS/SWAT sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BRINE FAC,CRESTMORE	2100 AVALON ST.	SW 1/4 - 1/2 (0.292 mi.)	38	130
INLAND CONCRETE	***2434***	***SW 1/4 - 1/2 (0.468 mi.)***	***H44***	***163***

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 12/12/2016 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RA NELSON MRF TRANSF	***1830 AGUA MANSA RD***	***SW 0 - 1/8 (0.052 mi.)***	***B16***	***78***
Cert Id: RC7808				

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED, RIVERSI	2100 AVALON ST	WSW 1/4 - 1/2 (0.426 mi.)	G41	140

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 2 SWEEPS UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
E L YEAGER CONSTRUCT Status: A Tank Status: A Comp Number: 83	***1995 AGUA MANSA RD***	***SW 1/8 - 1/4 (0.131 mi.)***	***C25***	***99***
RYDER TRUCK RENTAL Status: A Tank Status: A Comp Number: 8135	***5880 20TH ST***	***WSW 1/8 - 1/4 (0.167 mi.)***	***D29***	***106***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RYDER TRUCK RENTAL Facility Id: 00000008135	***5880 20TH ST***	***WSW 1/8 - 1/4 (0.167 mi.)***	***D29***	***106***

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 2 CA FID UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
E L YEAGER CONSTRUCT	***1995 AGUA MANSA RD***	***SW 1/8 - 1/4 (0.131 mi.)***	***C25***	***99***

Facility Id: 33002486
Status: A

RYDER TRUCK RENTAL	***5880 20TH ST***	***WSW 1/8 - 1/4 (0.167 mi.)***	***D29***	***106***

Facility Id: 33002250
Status: A

Other Ascertainable Records

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 2 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CERTAIN-TEED CORPORA	***2100 AVALON***	***WSW 1/4 - 1/2 (0.426 mi.)***	***G43***	***159***

Reg Id: 083300480T

Lower Elevation	Address	Direction / Distance	Map ID	Page
INLAND CONCRETE	***2434***	***SW 1/4 - 1/2 (0.468 mi.)***	***H44***	***163***

Reg Id: 083303309T
Reg Id: 083300195T

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 11/21/2016 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED CORPORAT	***2100 AVALON STREET***	***WSW 1/4 - 1/2 (0.426 mi.)***	***G40***	***140***

EPA Id: CAD990663320
Cleanup Status: KNOWN GENERATORS

PROC: A listing of certified processors.

A review of the PROC list, as provided by EDR, and dated 12/12/2016 has revealed that there is 1 PROC site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RA NELSON MRF TRANSF	***1830 AGUA MANSA RD***	***SW 0 - 1/8 (0.052 mi.)***	***B16***	***78***

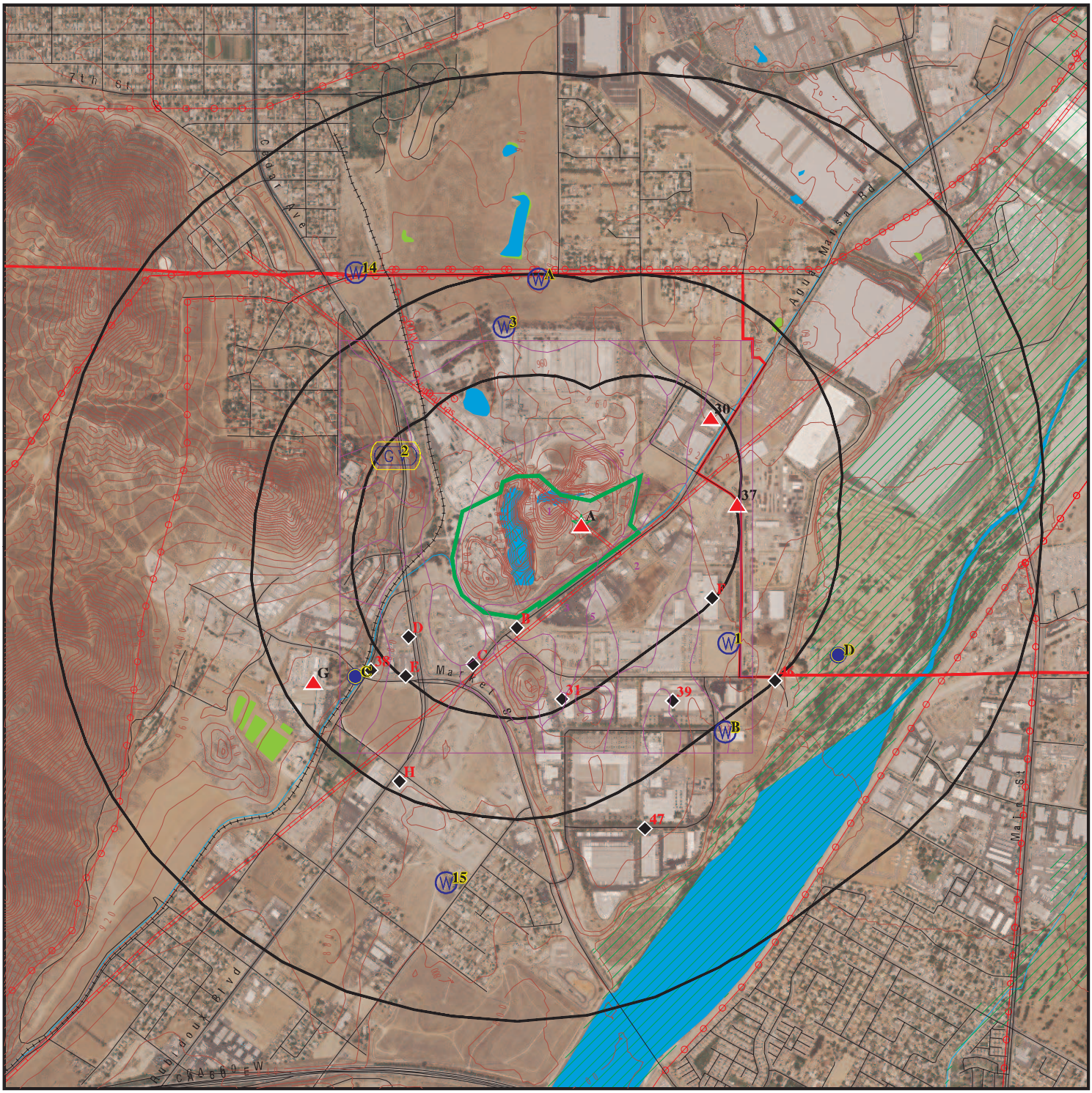
Cert Id: PR0399
Reg Id: 26414

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
HIGH SCHOOL - CEDAR AVENUE	ENVIROSTOR, SCH

OVERVIEW MAP - 4878973.2S



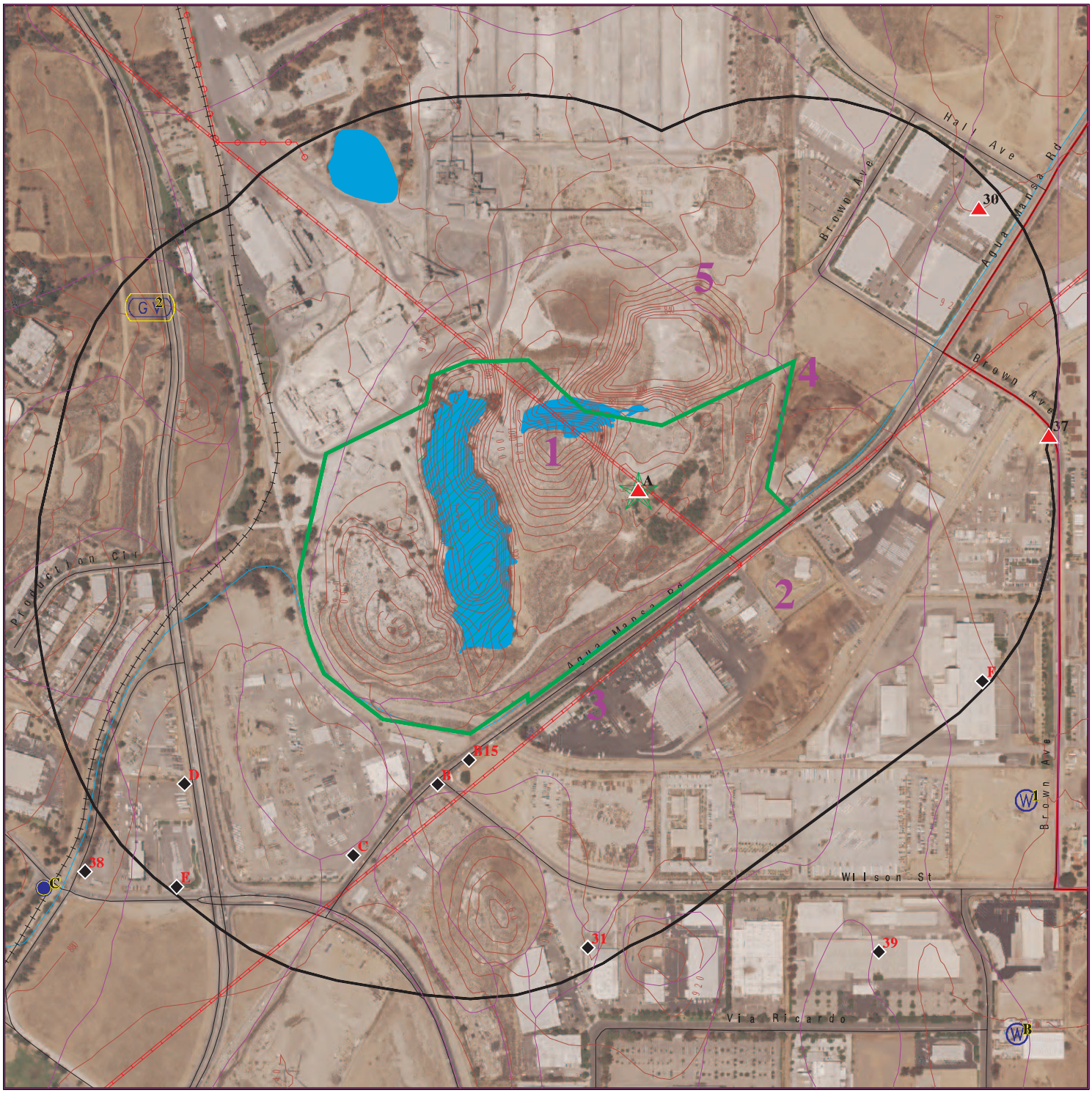
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Pipelines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	AMCP - Southern Parcel	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Drew Lassen
LAT/LONG:	34.024817 / 117.382248	INQUIRY #:	4878973.2s
		DATE:	March 14, 2017 3:04 pm

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DETAIL MAP - 4878973.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

County Boundary

Power transmission lines

Pipelines

100-year flood zone

500-year flood zone

0 1/8 1/4 1/2 Miles

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	AMCP - Southern Parcel	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Drew Lassen
LAT/LONG:	34.024817 / 117.382248	INQUIRY #:	4878973.2s
		DATE:	March 14, 2017 3:07 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500	1	0	0	0	NR	NR	1
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		1	0	NR	NR	NR	1
RCRA-SQG	0.250		2	4	NR	NR	NR	6
RCRA-CESQG	0.250		0	1	NR	NR	NR	1
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	1	0	NR	1
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000	1	0	0	1	1	NR	3
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		2	1	1	NR	NR	4
State and tribal leaking storage tank lists								
LUST	0.500	1	0	1	5	NR	NR	7

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	2	0	NR	NR	2
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	4	NR	NR	NR	5
AST	0.250	2	2	3	NR	NR	NR	7
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500	1	0	0	2	NR	NR	3
SWRCY	0.500		1	0	0	NR	NR	1
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	1	0	NR	1
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250	1	0	2	NR	NR	NR	3
HIST UST	0.250	1	0	1	NR	NR	NR	2
CA FID UST	0.250	1	0	2	NR	NR	NR	3
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001	1	0	NR	NR	NR	NR	1
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001	1	0	NR	NR	NR	NR	1
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001	1	0	NR	NR	NR	NR	1
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001	1	0	NR	NR	NR	NR	1
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001	2	0	NR	NR	NR	NR	2
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001	2	0	NR	NR	NR	NR	2
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001	3	0	NR	NR	NR	NR	3
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500	1	0	0	2	NR	NR	3
HWP	1.000		0	0	1	0	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001	1	0	NR	NR	NR	NR	1
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		1	0	0	NR	NR	1
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001	1	0	NR	NR	NR	NR	1
WIP	0.250		0	0	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
ECHO	0.001	1	0	NR	NR	NR	NR	1
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001	2	0	NR	NR	NR	NR	2
- Totals --		26	10	21	14	1	0	72

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **RIVERSIDE CEMENT CRESTMORE PLANT** **AST** **A100108116**
Target **1500 RUBIDOUX BLVD.** **N/A**
Property **RIVERSIDE, CA**

Site 1 of 14 in cluster A

Actual:
911 ft.

AST:

Certified Unified Program Agencies:	Riverside
Owner:	RIVERSIDE CEMENT COMPANY
Total Gallons:	5,000
CERSID:	Not reported
Facility ID:	Not reported
Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported
Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported
Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

A2 **RIVERSIDE CEMENT/TXI RIVERSIDE CEMENT** **HAZNET** **S112893771**
Target **1500 RUBEDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92502**

Site 2 of 14 in cluster A

Actual:
911 ft.

HAZNET:

envid:	S112893771
Year:	1999
GEPAID:	CAC001472088
Contact:	TXI RIVERSIDE CEMENT
Telephone:	9096836458
Mailing Name:	Not reported
Mailing Address:	PO BOX 56040
Mailing City,St,Zip:	RIVERSIDE, CA 925170000
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	12.9270
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

A3 **RIVERSIDE CEMENT COMPANY- CRESTMORE FACILITY** **AST** **A100423904**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92509**

Site 3 of 14 in cluster A

Actual:
911 ft.

AST:

Certified Unified Program Agencies:	Not reported
Owner:	Riverside Cement Company
Total Gallons:	Not reported
CERSID:	10470340
Facility ID:	Not reported
Business Name:	RIVERSIDE CEMENT COMPANY
Phone:	951-774-2500
Fax:	Not reported
Mailing Address:	245 Ward Road
Mailing Address City:	Midlothian
Mailing Address State:	TX
Mailing Address Zip Code:	76065
Operator Name:	Riverside Cement Company
Operator Phone:	951-774-2500
Owner Phone:	760-617-8141
Owner Mail Address:	245 Ward Road
Owner State:	TX
Owner Zip Code:	76065
Owner Country:	United States
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	CAD063844443

A4 **TXI RIVERSIDE CEMENT CO CRESTMORE PLANT** **FINDS** **1016068533**
Target **1500 RUBIDOUX BOULEVARD** **ECHO** **N/A**
Property **RIVERSIDE, CA 92509**

Site 4 of 14 in cluster A

Actual:
911 ft.

FINDS:

Registry ID: 110001199587

Environmental Interest/Information System
AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that

TXI RIVERSIDE CEMENT CO CRESTMORE PLANT (Continued) **1016068533**

these facilities release directly to air, water, land, or that are transported off-site.

AIR MAJOR

SUPERFUND (NON-NPL)

ECHO:
Envid: 1016068533
Registry ID: 110001199587
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110001199587

A5 Target Property **RIVERSIDE CEMENT COMPANY**
1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

HAZNET **S113001343**
N/A

Site 5 of 14 in cluster A

Actual: 911 ft.

HAZNET:

envid:	S113001343
Year:	2015
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	CAD982444481
TSD County:	San Bernardino
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	33.712
Cat Decode:	Other empty containers 30 gallons or more
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside

envid:	S113001343
Year:	2015
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	TXD055141378
TSD County:	99
Waste Category:	Liquids with polychloronated biphenyls >= 50 Mg./L
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	2.53791
Cat Decode:	Liquids with polychloronated biphenyls >= 50 Mg./L
Method Decode:	Incineration--Thermal Destruction Other Than Use As A Fuel
Facility County:	Riverside

RIVERSIDE CEMENT COMPANY (Continued) **S113001343**

envid: S113001343
Year: 2015
GEPAID: CAD063844443
Contact: MICHAEL MEINEN
Telephone: 7606178141
Mailing Name: Not reported
Mailing Address: 245 WARD RD
Mailing City,St,Zip: MIDLOTHIAN, TX 76065
Gen County: Riverside
TSD EPA ID: TXD055141378
TSD County: 99
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.066
Cat Decode: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Method Decode: Incineration--Thermal Destruction Other Than Use As A Fuel
Facility County: Riverside

envid: S113001343
Year: 2015
GEPAID: CAD063844443
Contact: MICHAEL MEINEN
Telephone: 7606178141
Mailing Name: Not reported
Mailing Address: 245 WARD RD
Mailing City,St,Zip: MIDLOTHIAN, TX 76065
Gen County: Riverside
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Polychlorinated biphenyls and material containing PCBs
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.3
Cat Decode: Polychlorinated biphenyls and material containing PCBs
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County: Riverside

envid: S113001343
Year: 2015
GEPAID: CAD063844443
Contact: MICHAEL MEINEN
Telephone: 7606178141
Mailing Name: Not reported
Mailing Address: 245 WARD RD
Mailing City,St,Zip: MIDLOTHIAN, TX 76065
Gen County: Riverside
TSD EPA ID: CAL000330453
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 1.6
Cat Decode: Other organic solids
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Riverside

RIVERSIDE CEMENT COMPANY (Continued) **S113001343**

Click this hyperlink while viewing on your computer to access
122 additional CA_HAZNET: record(s) in the EDR Site Report.

A6 **PANTHER IRON COMPANY INC** **HAZNET** **S112941758**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92509**

Site 6 of 14 in cluster A

Actual:
911 ft.

HAZNET:

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	D006
Disposal Method:	Disposal, Land Fill
Tons:	32.02
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	D008
Disposal Method:	Disposal, Land Fill
Tons:	15.17
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	D006

PANTHER IRON COMPANY INC (Continued) **S112941758**

Disposal Method: Disposal, Other
Tons: 94.39
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

A7 **RIVERSIDE CEMENT CO (EIS USE)** **FINDS** **1014675933**
Target Property **1500 RUBIDOUX BLVD** **N/A**
RIVERSIDE, CA 92509

Site 7 of 14 in cluster A

Actual: 911 ft.

FINDS:

Registry ID: 110041108565

Environmental Interest/Information System
HAZARDOUS AIR POLLUTANT MAJOR

STATE MASTER

A8 **RIVERSIDE CEMENT** **RGA LUST** **S114677341**
Target Property **1500 RUBIDOUX BLVD** **N/A**
RIVERSIDE, CA

Site 8 of 14 in cluster A

Actual: 911 ft.

RGA LUST:

2012	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2011	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2010	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2009	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2008	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2007	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2006	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2005	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2004	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2003	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2002	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2001	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD

A9 **RIVERSIDE CEMENT** **RGA LUST** **S114677342**
Target Property **1500 RUBIDOUX BOULEVARD** **N/A**
RIVERSIDE, CA

Site 9 of 14 in cluster A

Actual: 911 ft.

RGA LUST:

1998	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1997	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1996	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1995	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1994	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1993	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD

RIVERSIDE CEMENT (Continued) **S114677342**

1992 RIVERSIDE CEMENT 1500 RUBIDOUX BOULEVARD

A10 **RIVERSIDE CEMENT CO CRESTMORE PLT** **SEMS** **1000218306**
Target **1500 RUBIDOUX BLVD** **ICIS** **CAD063844443**
Property **RIVERSIDE, CA 92502** **US AIRS**

Site 10 of 14 in cluster A

Actual:
911 ft.

SEMS:

Site ID:	901505
EPA ID:	CAD063844443
Federal Facility:	N
NPL:	Not on the NPL
Non NPL Status:	Other Cleanup Activity: State-Lead Cleanup

Following information was gathered from the prior CERCLIS update completed in 10/2013:

Site ID:	0901505
EPA ID:	CAD063844443
Facility County:	RIVERSIDE
Short Name:	RIVERSIDE CEMENT CO CREST
Congressional District:	36
IFMS ID:	Not reported
SMSA Number:	6780
USGC Hydro Unit:	18070203
Federal Facility:	Not a Federal Facility
DMNSN Number:	0.00000
Site Orphan Flag:	N
RCRA ID:	Not reported
USGS Quadrangle:	Not reported
Site Init By Prog:	Not reported
NFRAP Flag:	Not reported
Parent ID:	Not reported
RST Code:	Not reported
EPA Region:	09
Classification:	Not reported
Site Settings Code:	Not reported
NPL Status:	Not on the NPL
DMNSN Unit Code:	Not reported
RBRAC Code:	Not reported
RResp Fed Agency Code:	Not reported
Non NPL Status:	Other Cleanup Activity: State-Lead Cleanup
Non NPL Status Date:	06/06/07
Site Fips Code:	06065
CC Concurrence Date:	/ /
CC Concurrence FY:	Not reported
Alias EPA ID:	Not reported
Site FUDS Flag:	Not reported

CERCLIS Site Contact Name(s):

Contact ID:	13003854.00000
Contact Name:	Leslie Ramirez
Contact Tel:	(415) 972-3978
Contact Title:	Site Assessment Manager (SAM)
Contact Email:	Not reported
Contact ID:	13003858.00000
Contact Name:	Sharon Murray

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Contact Tel: (415) 972-4250
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Contact ID: 13004003.00000
Contact Name: Carl Brickner
Contact Tel: Not reported
Contact Title: Site Assessment Manager (SAM)
Contact Email: Not reported

Alias Comments: Not reported
Site Description: 10/07" Envirostor DISCOVERY 4/25/1983 FACILITY IDENTIFIED ID FROM REGION 9 EMS DATABASE DISCOVERY 10/12/1983 FACILITY IDENTIFIED ID FROM ERRIS PA PRELIMINARY ASSESSMENT REPORT 6/1/1984 T/C W/ MALLORY S.MAY,GIFFORD HILL CO,214 -258-7175, 7/16/84 -1)SOURCE ACT: KLIN FIRED, CEMENT MFG 2)YR OF OPER: 1914 TO PRESENT. WASTE: CR CONTMN KILN BRICK. USED KILN BRICK WAS DISP IN A LDFL FROM 1955 TO 1979. SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012 SITE SCREENING 5/19/1989 SITE SCREENING DONE FIT PA REASSESSMENT COMPLETED 8/2/88 RECOMMENDED HIGH PRIORITY SSI UNDER CERCLA; DHS CONCURS WITH RECOMMENDATION SITE SCREENING 4/11/1995 NFA FOR DTSC. SITE SCREENING 6/6/2007 Site Screening approved by EPA. "OCA Start".

CERCLIS Assessment History:

Action Code: 001
Action: DISCOVERY
Date Started: / /
Date Completed: 08/01/80
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: PRELIMINARY ASSESSMENT
Date Started: 10/01/84
Date Completed: 01/01/85
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 09/01/88
Priority Level: Higher priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Action Code: 001
Action: SITE INSPECTION
Date Started: / /
Date Completed: 12/01/90
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: EPA Fund-Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 001
Action: SITE REASSESSMENT
Date Started: 07/01/02
Date Completed: 06/30/03
Priority Level: Low priority for further assessment
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

Action Code: 002
Action: SITE REASSESSMENT
Date Started: / /
Date Completed: 06/06/07
Priority Level: Not reported
Operable Unit: SITEWIDE
Primary Responsibility: State, Fund Financed
Planning Status: Not reported
Urgency Indicator: Not reported
Action Anomaly: Not reported

ICIS:
Enforcement Action ID: CASCAA0000060650000300120
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300120
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Enforcement Action ID:	CASCAA0000060650000300119
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300119
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not reported

Enforcement Action ID:	CASCAA0000060650000300107
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300107
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not reported

Enforcement Action ID:	CASCAA0000060650000300106
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300106
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300096
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300096
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300095
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300095
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300077
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300077
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300076
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300076
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300066
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300066
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300065
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300065
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300061
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300061
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300060
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300060
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300043
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300043
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300042
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300042
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300037
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300037
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300036
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300036
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

US AIRS (AFS):
Envid: 1000218306
Region Code: 09
County Code: CA065
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
D and B Number: Not reported
Facility Site Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Primary SIC Code: 3255
NAICS Code: 327124
Default Air Classification Code: MAJ
Facility Type of Ownership Code: POF
Air CMS Category Code: TVM
HPV Status: Not reported

US AIRS (AFS):
Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: MACT Standards (40 CFR Part 63)
Activity Date: 2008-03-05 00:00:00
Activity Status Date: 2008-04-03 17:10:01
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: MACT Standards (40 CFR Part 63)
Activity Date: 2008-03-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1984-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1985-01-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1986-03-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1987-05-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1987-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1988-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1989-11-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1990-11-19 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1991-12-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1993-11-30 00:00:00

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2012-02-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2012-07-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2012-07-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2013-03-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2013-10-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 1999-03-05 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2008-09-24 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2009-09-02 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2009-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2013-01-31 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2013-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2014-08-28 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-02-10 00:00:00
Activity Status Date: 2015-03-03 17:58:17
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-05-27 00:00:00

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: 2015-06-03 16:08:29
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:15:03
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-02-11 00:00:00
Activity Status Date: 2016-05-06 12:08:28
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-02-27 00:00:00
Activity Status Date: 2016-05-06 12:07:30
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-05-18 00:00:00
Activity Status Date: 2016-05-24 16:14:33
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-05-18 00:00:00
Activity Status Date: 2016-05-24 16:15:49
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1978-12-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1979-06-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1980-05-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1980-06-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1981-05-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1981-06-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1982-06-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1983-03-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1983-12-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1985-01-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1986-03-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-01-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-05-22 00:00:00

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1988-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1989-11-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1990-11-19 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1991-12-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1992-12-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1993-11-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1995-11-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1997-08-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-02-24 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-09-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-02-18 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-07-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-08-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-09-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-12-16 00:00:00

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-06-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-02-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-05-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-02-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-07-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-07-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-09-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-12-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-03-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-04-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-06-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-10-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-03-07 00:00:00

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-10-09 00:00:00
Activity Status Date: 1998-10-09 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-08 00:00:00
Activity Status Date: 2008-07-08 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-15 00:00:00
Activity Status Date: 2008-07-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-06-26 00:00:00
Activity Status Date: 2009-06-26 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-09-15 00:00:00
Activity Status Date: 2011-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-09-15 00:00:00
Activity Status Date: 2013-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-02-06 00:00:00
Activity Status Date: 2014-02-06 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-09-18 00:00:00
Activity Status Date: 1998-09-18 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-04-25 00:00:00
Activity Status Date: 2008-04-25 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-05-07 00:00:00
Activity Status Date: 2008-05-07 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-11-13 00:00:00
Activity Status Date: 2008-11-13 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-06-01 00:00:00
Activity Status Date: 2011-06-01 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-05-10 00:00:00
Activity Status Date: 2013-05-10 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-09-18 00:00:00
Activity Status Date: 2013-09-18 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2001-03-07 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: 2008-09-24 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2009-09-02 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2009-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2013-01-31 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2013-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2014-08-28 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-10-08 00:00:00
Activity Status Date: 2015-06-03 16:12:48
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-11-17 00:00:00
Activity Status Date: 2015-06-03 16:14:08
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-02-10 00:00:00
Activity Status Date: 2015-03-03 17:58:17
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-02-27 00:00:00
Activity Status Date: 2015-06-03 16:10:43
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:08:29
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:15:03
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2016-02-11 00:00:00
Activity Status Date: 2016-05-06 12:08:28
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2016-02-27 00:00:00
Activity Status Date: 2016-05-06 12:07:30
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2016-05-18 00:00:00
Activity Status Date: 2016-05-24 16:14:33
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2016-05-18 00:00:00
Activity Status Date: 2016-05-24 16:15:49
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 1997-08-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 1999-12-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2001-04-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2005-03-01 00:00:00

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2006-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-02-24 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-09-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-02-18 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-07-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-07-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-08-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-09-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-12-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-06-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-02-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-05-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-02-28 00:00:00

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-07-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-07-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-09-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-12-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-03-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-04-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-06-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-10-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2000-04-15 00:00:00
Activity Status Date: 2000-04-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-07-08 00:00:00
Activity Status Date: 2008-07-08 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-07-15 00:00:00
Activity Status Date: 2008-07-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-06-26 00:00:00
Activity Status Date: 2009-06-26 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-09-15 00:00:00

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: 2011-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-09-15 00:00:00
Activity Status Date: 2013-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-02-06 00:00:00
Activity Status Date: 2014-02-06 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2000-02-01 00:00:00
Activity Status Date: 2000-02-01 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-04-25 00:00:00
Activity Status Date: 2008-04-25 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

RIVERSIDE CEMENT CO CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-05-07 00:00:00
Activity Status Date: 2008-05-07 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-11-13 00:00:00
Activity Status Date: 2008-11-13 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-06-01 00:00:00
Activity Status Date: 2011-06-01 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-05-10 00:00:00
Activity Status Date: 2013-05-10 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-09-18 00:00:00
Activity Status Date: 2013-09-18 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

A11 **RIVERSIDE CEMENT CO (EIS USE)** **ENVIROSTOR** **S103443287**
Target **1500 RUBIDOUX BLVD** **LUST** **N/A**
Property **RIVERSIDE, CA 92509** **WMUDS/SWAT**
LDS
Site 11 of 14 in cluster A **EMI**
HIST CORTESE
Actual: **NPDES**
911 ft. **WDS**

ENVIROSTOR:

Facility ID:	33140002
Status:	Refer: RWQCB
Status Date:	01/11/2011
Site Code:	401056
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	10
NPL:	NO
Regulatory Agencies:	US EPA
Lead Agency:	US EPA
Program Manager:	Rania Zabaneh
Supervisor:	Eileen Mananian
Division Branch:	Cleanup Cypress
Assembly:	60
Senate:	31
Special Program:	EPA - PASI
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.02802
Longitude:	-117.3867
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	Polychlorinated biphenyls (PCBs Chromium VI
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD063844443
Alias Type:	EPA Identification Number
Alias Name:	401056
Alias Type:	Project Code (Site Code)
Alias Name:	33140002
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	PA/SI Reassessment
Completed Date:	05/18/2009
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	10/12/1983
Comments:	FACILITY IDENTIFIED ID FROM ERRIS
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* Discovery
Completed Date:	04/25/1983

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Comments: FACILITY IDENTIFIED ID FROM REGION 9 EMS DATABASE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 04/11/1995
Comments: NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 05/19/1989
Comments: SITE SCREENING DONE FIT PA REASSESSMENT COMPLETED 8/2/88 RECOMMENDED HIGH PRIORITY SSI UNDER CERCLA; DHS CONCURS WITH RECOMMENDATION

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 06/01/1984
Comments: T/C W/ MALLORY S.MAY,GIFFORD HILL CO,214 -258-7175, 7/16/84 -1)SOURCE ACT: KLIN FIRED, CEMENT MFG 2)YR OF OPER: 1914 TO PRESENT. WASTE: CR CONTMN KILN BRICK. USED KILN BRICK WAS DISP IN A LDFL FROM 1955 TO 1979. SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 06/06/2007
Comments: Site Screening approved by EPA. "OCA Start".

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST:
Region: STATE
Global Id: T0606500166
Latitude: 34.0308386890794
Longitude: -117.388611886578
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 11/05/1991
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: SCB
Local Agency: RIVERSIDE COUNTY LOP
RB Case Number: 083301366T
LOC Case Number: 89210
File Location: Local Agency Warehouse
Potential Media Affect: Soil
Potential Contaminants of Concern: Heating Oil / Fuel Oil
Site History: Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500166
Contact Type:	Local Agency Caseworker
Contact Name:	SHARON BOLTINGHOUSE
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	sbolting@rivcocha.org
Phone Number:	9519558980

Status History:

Global Id:	T0606500166
Status:	Open - Case Begin Date
Status Date:	11/01/1987
Global Id:	T0606500166
Status:	Open - Site Assessment
Status Date:	11/01/1987
Global Id:	T0606500166
Status:	Open - Site Assessment
Status Date:	02/29/1988
Global Id:	T0606500166
Status:	Open - Remediation
Status Date:	03/01/1989
Global Id:	T0606500166
Status:	Completed - Case Closed
Status Date:	11/05/1991

Regulatory Activities:

Global Id:	T0606500166
Action Type:	Other
Date:	11/01/1987
Action:	Leak Reported
Global Id:	T0606500166
Action Type:	REMEDIATION
Date:	03/01/1989
Action:	Excavation
Global Id:	T0606500166
Action Type:	ENFORCEMENT
Date:	11/04/1991
Action:	File review - #RCDEH Upload Site File 10/15/2015
Global Id:	T0606500166
Action Type:	ENFORCEMENT
Date:	11/05/1991
Action:	Closure/No Further Action Letter - #RCDEH1105

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083301366T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Bunker Fuel Oil
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0606500166
How Stopped Date:	Not reported
Enter Date:	12/6/1989
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	12/7/1989
Discover Date:	11/1/1987
Enforcement Date:	Not reported
Close Date:	11/5/1991
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	10/1/1989
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	12/6/1989
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.0271887
Longitude:	-117.3898002
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	PAH
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: RCC PROPOSES TO MIX THE CONTAMINATED SOIL WITH CEMENT AND USE IT FOR PAVING

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

ON SITE, APPROVED BY RCEH 12/13/90.

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	89210
Employee:	Boltinghous-LOP
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Not reported
Primary Waste:	DOMIND
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Private
Agency Name:	RIVERSIDE CEMENT COMPANY
Agency Department:	Not reported
Agency Address:	PO BOX 832
Agency City,St,Zip:	RIVERSIDE CA 92502
Agency Contact:	Not reported
Agency Telephone:	9096833660
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	Not reported
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	8
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	3241
Secondary SIC:	Not reported
Comments:	Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Last Facility Editors:	Not reported
Waste Discharge System:	True
Solid Waste Assessment Test Program:	False
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Not reported
Sub Chapter 15:	True
Regional Board Project Officer:	Not reported
Number of WMUDS at Facility:	0
Section Range:	Not reported
RCRA Facility:	No
Waste Discharge Requirements:	H
Self-Monitoring Rept. Frequency:	Quarterly Submittal
Waste Discharge System ID:	8 332000001
Solid Waste Information ID:	Not reported

LDS:

Global Id:	L10003541579
Latitude:	34.02892
Longitude:	-117.3865
Case Type:	Land Disposal Site
Status:	Completed - Case Closed
Status Date:	11/02/2009
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Caseworker:	KDP
Local Agency:	Not reported
RB Case Number:	8 332000001
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Not reported
EDR Link ID:	L10003541579
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

EMI:

Year:	1996
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3255
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	39
NOX - Oxides of Nitrogen Tons/Yr:	149
SOX - Oxides of Sulphur Tons/Yr:	66
Particulate Matter Tons/Yr:	54

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Part. Matter 10 Micrometers and Smllr Tons/Yr:50

Year:	2002
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	73
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2003
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	73
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2004
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.289508
Reactive Organic Gases Tons/Yr:	0.26
Carbon Monoxide Emissions Tons/Yr:	0.75097
NOX - Oxides of Nitrogen Tons/Yr:	72.6925
SOX - Oxides of Sulphur Tons/Yr:	1.208824
Particulate Matter Tons/Yr:	0.05006
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.05

Year:	2005
County Code:	33
Air Basin:	SC
Facility ID:	800182

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.57899
Reactive Organic Gases Tons/Yr:	1.256253035
Carbon Monoxide Emissions Tons/Yr:	11.3
NOX - Oxides of Nitrogen Tons/Yr:	73.2
SOX - Oxides of Sulphur Tons/Yr:	4.86
Particulate Matter Tons/Yr:	62.3104
Part. Matter 10 Micrometers and Smllr Tons/Yr:	33.9260864

Year:	2006
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.049977653408348326
Reactive Organic Gases Tons/Yr:	.83
Carbon Monoxide Emissions Tons/Yr:	2.323
NOX - Oxides of Nitrogen Tons/Yr:	61.961
SOX - Oxides of Sulphur Tons/Yr:	2.599
Particulate Matter Tons/Yr:	106.956
Part. Matter 10 Micrometers and Smllr Tons/Yr:	97.99428

Year:	2007
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.043561845063478607
Reactive Organic Gases Tons/Yr:	.83
Carbon Monoxide Emissions Tons/Yr:	2.323
NOX - Oxides of Nitrogen Tons/Yr:	61.961
SOX - Oxides of Sulphur Tons/Yr:	2.599
Particulate Matter Tons/Yr:	106.956
Part. Matter 10 Micrometers and Smllr Tons/Yr:	97.99428

Year:	2008
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	.7269285903408251728

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Reactive Organic Gases Tons/Yr:	.326309126
Carbon Monoxide Emissions Tons/Yr:	.4
NOX - Oxides of Nitrogen Tons/Yr:	10.94
SOX - Oxides of Sulphur Tons/Yr:	2.52
Particulate Matter Tons/Yr:	17.768865875
Part. Matter 10 Micrometers and Smllr Tons/Yr:	16.365356605

Year:	2012
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.042662419163
Reactive Organic Gases Tons/Yr:	0.02969
Carbon Monoxide Emissions Tons/Yr:	0.11428
NOX - Oxides of Nitrogen Tons/Yr:	0.37817
SOX - Oxides of Sulphur Tons/Yr:	0.00194
Particulate Matter Tons/Yr:	4.11788
Part. Matter 10 Micrometers and Smllr Tons/Yr:	3.78922912

Year:	2013
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4.1434347314e-005
Reactive Organic Gases Tons/Yr:	2.8523e-005
Carbon Monoxide Emissions Tons/Yr:	7.3451e-005
NOX - Oxides of Nitrogen Tons/Yr:	0.00019883
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.003042273
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.001221835008

Year:	2014
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.026101689543
Reactive Organic Gases Tons/Yr:	0.02511
Carbon Monoxide Emissions Tons/Yr:	0.03163
NOX - Oxides of Nitrogen Tons/Yr:	0.02527
SOX - Oxides of Sulphur Tons/Yr:	9e-005
Particulate Matter Tons/Yr:	6.626795
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2.660097

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

HIST CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	083301366T

NPDES:

Npdes Number:	CAS000001
Facility Status:	Terminated
Agency Id:	0
Region:	8
Regulatory Measure Id:	210701
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I002053
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/30/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	06/24/2016
Discharge Name:	TXI Riverside Cement Company
Discharge Address:	PO Box 146
Discharge City:	Oro Grande
Discharge State:	California
Discharge Zip:	92368
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	210701
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I002053
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	6/24/2016
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	3/30/1992
STATUS CODE NAME:	Terminated
STATUS DATE:	8/3/2016
PLACE SIZE:	294
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Stewart Minter
FACILITY CONTACT TITLE:	Operations Manager
FACILITY CONTACT PHONE:	951-774-2519
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	stewart.minter@martinmarietta.com

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

OPERATOR NAME:	TXI Riverside Cement Company
OPERATOR ADDRESS:	PO Box 146
OPERATOR CITY:	Oro Grande
OPERATOR STATE:	California
OPERATOR ZIP:	92368
OPERATOR CONTACT NAME:	Kevin Grogan
OPERATOR CONTACT TITLE:	General Manager
OPERATOR CONTACT PHONE:	760-245-5321
OPERATOR CONTACT PHONE EXT:	5283
OPERATOR CONTACT EMAIL:	kevin.grogan@martinmarietta.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	951-201-5238
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	David Perkins
CERTIFIER TITLE:	General Manager
CERTIFICATION DATE:	24-JUN-16
PRIMARY SIC:	3241-Cement, Hydraulic
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

WDS:

Facility ID:	Santa Ana River 33I002053
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

	are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	RIVERSIDE CEMENT COMPANY
Agency Address:	PO BOX 832
Agency City,St,Zip:	RIVERSIDE 92502
Agency Contact:	RICHARD BALL
Agency Telephone:	9096833660
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

A12 **RIVERSIDE CEMENT COMPANY** **SWEEPS UST** **S101619622**
Target **1500 RUBIDOUX BLVD** **CA FID UST** **N/A**
Property **RIVERSIDE, CA 92509**

Site 12 of 14 in cluster A

Actual:
911 ft.

SWEEPS UST:

Status:	Active
Comp Number:	65436
Number:	1
Board Of Equalization:	44-018479
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	33-000-065436-000008
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL

RIVERSIDE CEMENT COMPANY (Continued) **S101619622**

Number Of Tanks: 2

Status: Active
Comp Number: 65436
Number: 1
Board Of Equalization: 44-018479
Referral Date: 11-18-92
Action Date: 11-18-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 33-000-065436-000009
Tank Status: A
Capacity: 10000
Active Date: 11-18-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 33003042
Regulated By: UTNKA
Regulated ID: 00065436
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7146833660
Mail To: Not reported
Mailing Address: P O BOX 832
Mailing Address 2: Not reported
Mailing City,St,Zip: RIVERSIDE 92509
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

A13 **RIVERSIDE CEMENT COMPANY - CRESTMORE PLANT** **TSCA** **1014200494**
Target Property **1500 RUBIDOUX BLVD.** **N/A**
RIVERSIDE, CA 92509

Site 13 of 14 in cluster A

Actual: 911 ft.

Click this hyperlink while viewing on your computer to access additional TSCA detail in the EDR Site Report.

A14 **RIVERSIDE CEMENT CO (EIS USE)** **HIST UST** **U001576600**
Target **1500 RUBIDOUX BL** **EMI** **N/A**
Property **RIVERSIDE, CA 92509**

Site 14 of 14 in cluster A

Actual:
911 ft.

HIST UST:

File Number:	0001F6CC
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F6CC.pdf
Region:	STATE
Facility ID:	00000065436
Facility Type:	Other
Other Type:	CEMENT
Contact Name:	Not reported
Telephone:	7146833660
Owner Name:	GIFFORD-HILL INC.
Owner Address:	300 EAST JOHN CARPENTER FREEWA
Owner City,St,Zip:	IRVING, TX 75062
Total Tanks:	0007
Tank Num:	001
Container Num:	DIESEL #1
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	GASOLINE#1
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	AB #1
Year Installed:	Not reported
Tank Capacity:	00002000
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	None
Tank Num:	004
Container Num:	AB #2
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	None
Tank Num:	005
Container Num:	AB #3
Year Installed:	Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

Tank Capacity: 00000000
Tank Used for: PRODUCT
Type of Fuel: 06
Container Construction Thickness: Not reported
Leak Detection: Visual

Tank Num: 006
Container Num: DIESEL 2A
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 007
Container Num: DISEL #2B
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Click here for Geo Tracker PDF:

EMI:
Year: 1987
County Code: 33
Air Basin: SC
Facility ID: 800182
Air District Name: SC
SIC Code: 3255
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 9
Reactive Organic Gases Tons/Yr: 4
Carbon Monoxide Emissions Tons/Yr: 233
NOX - Oxides of Nitrogen Tons/Yr: 555
SOX - Oxides of Sulphur Tons/Yr: 68
Particulate Matter Tons/Yr: 110
Part. Matter 10 Micrometers and Smllr Tons/Yr: 98

Year: 1990
County Code: 33
Air Basin: SC
Facility ID: 800182
Air District Name: SC
SIC Code: 3255
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 21
Reactive Organic Gases Tons/Yr: 9
Carbon Monoxide Emissions Tons/Yr: 107
NOX - Oxides of Nitrogen Tons/Yr: 59

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

SOX - Oxides of Sulphur Tons/Yr:	61
Particulate Matter Tons/Yr:	97
Part. Matter 10 Micrometers and Smllr Tons/Yr:	89

Year:	1995
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3255
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	12
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	84
NOX - Oxides of Nitrogen Tons/Yr:	51
SOX - Oxides of Sulphur Tons/Yr:	12
Particulate Matter Tons/Yr:	47
Part. Matter 10 Micrometers and Smllr Tons/Yr:	43

Year:	1997
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	46

Year:	1998
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7
Reactive Organic Gases Tons/Yr:	6
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	44

Year:	1999
County Code:	33

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	46

Year:	2000
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	46

Year:	2001
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	46
NOX - Oxides of Nitrogen Tons/Yr:	59
SOX - Oxides of Sulphur Tons/Yr:	17
Particulate Matter Tons/Yr:	41
Part. Matter 10 Micrometers and Smllr Tons/Yr:	38

Year:	2009
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **U001576600**

Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3.1786142691247098E-2
Reactive Organic Gases Tons/Yr:	0.0179197
Carbon Monoxide Emissions Tons/Yr:	0.15273999999999999
NOX - Oxides of Nitrogen Tons/Yr:	0.26882
SOX - Oxides of Sulphur Tons/Yr:	0.0011255
Particulate Matter Tons/Yr:	3.7936100000000001
Part. Matter 10 Micrometers and Smllr Tons/Yr:	3.49106344

Year:	2011
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.023880149034
Reactive Organic Gases Tons/Yr:	0.01282
Carbon Monoxide Emissions Tons/Yr:	0.12405
NOX - Oxides of Nitrogen Tons/Yr:	0.21599
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2.30864
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2.12480328

B15 **FERRELLGAS LP DBA BLUE RHINO OF LOS ANGELES** **RCRA-SQG** **1008372009**
SSW **1750 AGUA MANSA RD** **CAR000161638**
< 1/8 **RUBIDOUX, CA 92509**
0.025 mi.
132 ft. **Site 1 of 8 in cluster B**

Relative:
Lower

Actual:
892 ft.

RCRA-SQG:

Date form received by agency:	01/03/2008
Facility name:	FERRELLGAS LP DBA BLUE RHINO OF LOS ANGELES
Facility address:	1750 AGUA MANSA RD RUBIDOUX, CA 92509 2402
EPA ID:	CAR000161638
Contact:	STEVE R HOLMES
Contact address:	1750 AGUA MANSA RD RUBIDOUX, CA 92509 2402
Contact country:	US
Contact telephone:	951-321-4720
Contact email:	SHOLMES@BLUERHINO.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	FERRELLGAS LP DBA BLUE RHINO
Owner/operator address:	470 W HANES MILL RD STE 200 WINSTON SALEM, NC 27105
Owner/operator country:	US

FERRELLGAS LP DBA BLUE RHINO OF LOS ANGELES (Continued) **1008372009**

Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/01/2005
Owner/Op end date: Not reported

Owner/operator name: FERRELLGAS LP DBA BLUE RHINO
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 05/01/2005
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Historical Generators:
Date form received by agency: 04/11/2005
Site name: PLATINUM PROPANE
Classification: Large Quantity Generator

. Waste code: D007
. Waste name: CHROMIUM

Violation Status: No violations found

B16 **RA NELSON MRF TRANSFER STATION** **SWF/LF** **S108199310**
SW **1830 AGUA MANSA RD** **SWRCY** **N/A**
< 1/8 **RIVERSIDE, CA 92509** **NPDES**
0.052 mi. **PROC**
276 ft. **Site 2 of 8 in cluster B**

Relative:
Lower

Actual:
886 ft.

SWF/LF (SWIS):
Region: STATE
Facility ID: 33-AA-0258
Lat/Long: 34.02106 / -117.3853
Owner Name: County Of Riverside Waste Mgmt Dept
Owner Telephone: 9514863200

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Owner Address:	Not reported
Owner Address2:	14310 Frederick Street
Owner City,St,Zip:	Moreno Valley, CA 92553
Operational Status:	Active
Operator:	Agua Mansa MRF, LLC
Operator Phone:	9517860655
Operator Address:	Not reported
Operator Address2:	9890 Cherry Avenue
Operator City,St,Zip:	Fontana, CA 92335
Permit Date:	05/15/2012
Permit Status:	Permitted
Permitted Acreage:	Not reported
Activity:	Chipping and Grinding Activity Fac./ Op.
Regulation Status:	Permitted
Landuse Name:	Suburban,Open Space - Nonirrigated,Industrial
GIS Source:	Map
Category:	Composting
Unit Number:	03
Inspection Frequency:	Monthly
Accepted Waste:	Not reported
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	Not reported
SWIS Num:	33-AA-0258
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported
Lat/Long:	34.02106 / -117.3853

Region:	STATE
Facility ID:	33-AA-0258
Lat/Long:	34.02106 / -117.3853
Owner Name:	County Of Riverside Waste Mgmt Dept
Owner Telephone:	9514863200
Owner Address:	Not reported
Owner Address2:	14310 Frederick Street
Owner City,St,Zip:	Moreno Valley, CA 92553
Operational Status:	Active
Operator:	Agua Mansa MRF, LLC
Operator Phone:	9517860655
Operator Address:	Not reported
Operator Address2:	9890 Cherry Avenue
Operator City,St,Zip:	Fontana, CA 92335
Permit Date:	05/15/2012
Permit Status:	Permitted
Permitted Acreage:	Not reported
Activity:	Composting Facility (Mixed)
Regulation Status:	Permitted
Landuse Name:	Suburban,Open Space - Nonirrigated,Industrial
GIS Source:	Map
Category:	Composting
Unit Number:	08
Inspection Frequency:	Monthly

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Accepted Waste: Not reported
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported
SWIS Num: 33-AA-0258
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: Not reported
Actual Throughput with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity: Not reported
Remaining Capacity with Units: Not reported
Lat/Long: 34.02106 / -117.3853

Region: STATE
Facility ID: 33-AA-0258
Lat/Long: 34.02106 / -117.3853
Owner Name: County Of Riverside Waste Mgmt Dept
Owner Telephone: 9514863200
Owner Address: Not reported
Owner Address2: 14310 Frederick Street
Owner City,St,Zip: Moreno Valley, CA 92553
Operational Status: Active
Operator: Agua Mansa MRF, LLC
Operator Phone: 9517860655
Operator Address: Not reported
Operator Address2: 9890 Cherry Avenue
Operator City,St,Zip: Fontana, CA 92335
Permit Date: 05/15/2012
Permit Status: Permitted
Permitted Acreage: $22.00
Activity: Large Volume Transfer/Proc Facility
Regulation Status: Permitted
Landuse Name: Suburban,Open Space - Nonirrigated,Industrial
GIS Source: Map
Category: Transfer/Processing
Unit Number: 01
Inspection Frequency: Monthly
Accepted Waste: Construction/demolition,Green Materials,Inert,Metals,Mixed municipal,Wood waste
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported
SWIS Num: 33-AA-0258
Waste Discharge Requirement Num: Not reported
Program Type: MRF
Permitted Throughput with Units: 4000
Actual Throughput with Units: Tons/day
Permitted Capacity with Units: 4000
Remaining Capacity: Not reported
Remaining Capacity with Units: Tons/day
Lat/Long: 34.02106 / -117.3853

Region: STATE
Facility ID: 33-AA-0258
Lat/Long: 34.02106 / -117.3853
Owner Name: County Of Riverside Waste Mgmt Dept

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Owner Telephone:	9514863200
Owner Address:	Not reported
Owner Address2:	14310 Frederick Street
Owner City,St,Zip:	Moreno Valley, CA 92553
Operational Status:	Active
Operator:	Agua Mansa MRF, LLC
Operator Phone:	9517860655
Operator Address:	Not reported
Operator Address2:	9890 Cherry Avenue
Operator City,St,Zip:	Fontana, CA 92335
Permit Date:	05/15/2012
Permit Status:	Permitted
Permitted Acreage:	Not reported
Activity:	Small Vol CDI Debris Proc. Operation
Regulation Status:	Permitted
Landuse Name:	Suburban,Open Space - Nonirrigated,Industrial
GIS Source:	Map
Category:	Transfer/Processing
Unit Number:	04
Inspection Frequency:	Monthly
Accepted Waste:	Construction/demolition
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	Not reported
SWIS Num:	33-AA-0258
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported
Lat/Long:	34.02106 / -117.3853

Region:	STATE
Facility ID:	33-AA-0258
Lat/Long:	34.02106 / -117.3853
Owner Name:	County Of Riverside Waste Mgmt Dept
Owner Telephone:	9514863200
Owner Address:	Not reported
Owner Address2:	14310 Frederick Street
Owner City,St,Zip:	Moreno Valley, CA 92553
Operational Status:	Active
Operator:	Agua Mansa MRF, LLC
Operator Phone:	9517860655
Operator Address:	Not reported
Operator Address2:	9890 Cherry Avenue
Operator City,St,Zip:	Fontana, CA 92335
Permit Date:	05/15/2012
Permit Status:	Permitted
Permitted Acreage:	Not reported
Activity:	Waste Tire Location
Regulation Status:	Permitted
Landuse Name:	Suburban,Open Space - Nonirrigated,Industrial
GIS Source:	Map
Category:	Waste Tire Site
Unit Number:	05

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Inspection Frequency: None
Accepted Waste: Not reported
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported
SWIS Num: 33-AA-0258
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: Not reported
Actual Throughput with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity: Not reported
Remaining Capacity with Units: Not reported
Lat/Long: 34.02106 / -117.3853

Region: STATE
Facility ID: 33-AA-0319
Lat/Long: 34.02261 / -117.38004
Owner Name: Riverside County Waste Management Depart
Owner Telephone: 9514863200
Owner Address: Not reported
Owner Address2: 14310 Frederick Street
Owner City,St,Zip: Moreno Valley, CA 92553
Operational Status: Active
Operator: Agua Mansa MRF, LLC
Operator Phone: 9517860655
Operator Address: Not reported
Operator Address2: 9890 Cherry Avenue
Operator City,St,Zip: Fontana, CA 92335
Permit Date: 09/05/2013
Permit Status: Notification
Permitted Acreage: $1.00
Activity: Composting Operation (Research)
Regulation Status: Notification
Landuse Name: Residential,Golf Course,Commercial
GIS Source: Map
Category: Composting
Unit Number: 02
Inspection Frequency: Quarterly
Accepted Waste: Food Wastes,Green Materials
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported
SWIS Num: 33-AA-0319
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: 5000
Actual Throughput with Units: Cu Yards/day
Permitted Capacity with Units: 2000
Remaining Capacity: Not reported
Remaining Capacity with Units: Tons/year
Lat/Long: 34.02261 / -117.38004

SWRCY:
Reg Id: 23974
Cert Id: RC7808
Mailing Address: 1830 Agua Mansa Rd

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Mailing City:	Riverside
Mailing State:	CA
Mailing Zip Code:	92509
Website:	Not reported
Email:	debbie@burrtec.com
Phone Number:	(951) 786-0544
Grand Father:	N
Rural:	N
Operation Begin Date:	01/16/1998
Aluminium:	Y
Glass:	Y
Plastic:	Y
Bimetal:	Y
Agency:	N/A
Monday Hours Of Operation:	8:00 am - 4:00 pm
Tuesday Hours Of Operation:	8:00 am - 4:00 pm
Wednesday Hours Of Operation:	8:00 am - 4:00 pm
Thursday Hours Of Operation:	8:00 am - 4:00 pm
Friday Hours Of Operation:	8:00 am - 4:00 pm
Saturday Hours Of Operation:	8:00 am - 2:00 pm
Sunday Hours Of Operation:	8:00 am - 2:00 pm
Organization ID:	19249
Organization Name:	Burrtec Waste Industries Inc

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	359176
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I021996
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	01/14/2009
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Agua Mansa MRF LLC
Discharge Address:	9890 Cherry Avenue
Discharge City:	Fontana
Discharge State:	California
Discharge Zip:	92335
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	359176
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I021996
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	12/30/2008
PROCESSED DATE:	1/14/2009
STATUS CODE NAME:	Active
STATUS DATE:	1/14/2009
PLACE SIZE:	22.03
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Nick Burciaga
FACILITY CONTACT TITLE:	Division Manager
FACILITY CONTACT PHONE:	951-786-0655
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	nburciaga@burrtec.com
OPERATOR NAME:	Agua Mansa MRF LLC
OPERATOR ADDRESS:	9890 Cherry Avenue
OPERATOR CITY:	Fontana
OPERATOR STATE:	California
OPERATOR ZIP:	92335
OPERATOR CONTACT NAME:	Gary Koontz
OPERATOR CONTACT TITLE:	Facility Project Manager
OPERATOR CONTACT PHONE:	909-429-4200
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	gkoontz@burrtec.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	909-714-8158
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Gary Koontz

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

CERTIFIER TITLE:	Facility Project Manager
CERTIFICATION DATE:	04-MAR-15
PRIMARY SIC:	4212-Local Trucking Without Storage
SECONDARY SIC:	Not reported
TERTIARY SIC:	2875-Fertilizers, Mixing Only

PROC:

Reg Id:	26414
Cert Id:	PR0399
Organization Id:	26414
Organization Name:	Agua Mansa MRF LLC
Mailing Address:	1830 Agua Mansa Rd
Mailing City:	Riverside
Mailing State:	CA
Mailing Zip Code:	92509
Website:	Not reported
Email:	Not reported
Phone Number:	(951) 786-0544
Grand Father:	N/A
Rural:	N/A
Operation Begin Date:	03/01/2005
Aluminium:	Not reported
Glass:	Not reported
Plastic:	Not reported
Bimetal:	Not reported
Agency:	N/A
Monday Hours Of Operation:	8:00 am - 4:00 pm
Tuesday Hours Of Operation:	8:00 am - 4:00 pm
Wednesday Hours Of Operation:	8:00 am - 4:00 pm
Thursday Hours Of Operation:	8:00 am - 4:00 pm
Friday Hours Of Operation:	8:00 am - 4:00 pm
Saturday Hours Of Operation:	8:00 am - 2:00 pm
Sunday Hours Of Operation:	8:00 am - 2:00 pm

B17 **ROBERT A. NELSON TRANSFER STATION & MRF** **SWF/LF** **S112977742**
SW **1830 AGUA MANSA RD.** **HAZNET** **N/A**
< 1/8 **RIVERSIDE, CA 92509**
0.052 mi.
276 ft. **Site 3 of 8 in cluster B**

Relative:
Lower

Actual:
886 ft.

LOS ANGELES CO. LF:

Site ID:	2759
Alt. Address:	N/A
Site Contact:	Not reported
Site Contact Phone:	(951) 786-0655
Site Email:	Not reported
Site Website:	N/A
Site Type:	Out-of-County Facility
Site SWIS Number:	33-AA-0258
Beginning Operation Date:	N/A
Ending Operation Date:	N/A
Local Enforcement Agency:	County of Riverside Community Health Agency
Maximun Depth Fill(Ft):	N/A
Permitted Capacity:	4000
Present Use:	Large Volume Transfer/Proc Facility
Remaining Capacity(Million):	N/A
Status:	Active

ROBERT A. NELSON TRANSFER STATION & MRF (Continued) **S112977742**

Waste Accepted: Construction & Demolition;Green Materials;Household Trash;Industrial Non-Hazardous;
Hours of Operation: Monday - Sunday 6 am - 8 pm
Disposal Area (Acre): N/A

Detail As Of 01/2014:
Operator Name: Unknown
Operator Address: Not reported
Operator City/State/Zip: Not reported
Operator Contact: Not reported
Operator Telephone: Not reported
Operator Email: Not reported
Owner Name: Unknown
Owner Address: Not reported
Owner City/State/Zip: Not reported
Owner Contact: Not reported
Owner Telephone: Not reported
Owner Email: Not reported

HAZNET:
envid: S112977742
Year: 2009
GEPAID: CAC002642108
Contact: HAROLD ELDRIDGE
Telephone: 9517857592
Mailing Name: Not reported
Mailing Address: 2950 JEFFERSON ST STE A
Mailing City,St,Zip: RIVERSIDE, CA 925048320
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Off-specification, aged or surplus organics
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.004
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: S112977742
Year: 2009
GEPAID: CAC002642108
Contact: HAROLD ELDRIDGE
Telephone: 9517857592
Mailing Name: Not reported
Mailing Address: 2950 JEFFERSON ST STE A
Mailing City,St,Zip: RIVERSIDE, CA 925048320
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0108
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

ROBERT A. NELSON TRANSFER STATION & MRF (Continued) **S112977742**

envid:	S112977742
Year:	2009
GEPAID:	CAC002642108
Contact:	HAROLD ELDRIDGE
Telephone:	9517857592
Mailing Name:	Not reported
Mailing Address:	2950 JEFFERSON ST STE A
Mailing City,St,Zip:	RIVERSIDE, CA 925048320
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.1054
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

B18 **AGUA MANSA MRF, LLC** **RCRA-LQG 1014386692**
SW **1830 AGUA MANSA ROAD** **FINDS CAL000162179**
< 1/8 **RIVERSIDE, CA 92509**
0.052 mi.
276 ft. **Site 4 of 8 in cluster B**

Relative:
Lower

Actual:
886 ft.

RCRA-LQG:

Date form received by agency:	08/30/2010
Facility name:	AGUA MANSA MRF, LLC
Facility address:	1830 AGUA MANSA ROAD RIVERSIDE, CA 92509
EPA ID:	CAL000162179
Mailing address:	AGUA MANSA ROAD RIVERSIDE, CA 92509
Contact:	RANDY R MILLS
Contact address:	AGUA MANSA ROAD RIVERSIDE, CA 92509
Contact country:	US
Contact telephone:	(951) 786-0655
Contact email:	RANDY@BURRTEC.COM
EPA Region:	09
Land type:	County
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	RIVERSIDE COUNTY WASTE

AGUA MANSA MRF, LLC (Continued) **1014386692**

Owner/operator address: FREDRICK STREET
MORENO VALLEY, CA 92553
Owner/operator country: Not reported
Owner/operator telephone: (951) 486-3200
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: 01/19/1997
Owner/Op end date: Not reported

Owner/operator name: BURRTEC WASTE INDUSTRIES, INC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 11/19/1997
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 141
. Waste name: 141

. Waste code: 181
. Waste name: 181

. Waste code: 232
. Waste name: 232

. Waste code: 331
. Waste name: 331

. Waste code: 343
. Waste name: 343

. Waste code: 352
. Waste name: 352

. Waste code: 551
. Waste name: 551

AGUA MANSA MRF, LLC (Continued) **1014386692**

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: P108
. Waste name: STRYCHNIDIN-10-ONE, & SALTS (OR) STRYCHNINE, & SALTS

. Waste code: U249
. Waste name: ZINC PHOSPHIDE ZN3P2, WHEN PRESENT AT CONCENTRATIONS OF 10% OR LESS

. Waste code: U279
. Waste name: CARBARYL (OR) 1-NAPHTHALENOL, METHYLCARBAMATE

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Universal Waste - General
Date violation determined: 10/22/2015
Date achieved compliance: 11/20/2015
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/22/2015
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Universal Waste - General
Date violation determined: 10/22/2015
Date achieved compliance: 10/27/2015
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/22/2015
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Universal Waste - General
Date violation determined: 10/22/2015
Date achieved compliance: 10/22/2015
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/22/2015
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

AGUA MANSA MRF, LLC (Continued) **1014386692**

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 08/23/2010
Date achieved compliance: 08/23/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/23/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 08/22/2008
Date achieved compliance: 09/04/2008
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/22/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 10/22/2015
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Universal Waste - General
Date achieved compliance: 11/20/2015
Evaluation lead agency: State

Evaluation date: 10/22/2015
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Universal Waste - General
Date achieved compliance: 10/27/2015
Evaluation lead agency: State

Evaluation date: 10/22/2015
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Universal Waste - General
Date achieved compliance: 10/22/2015
Evaluation lead agency: State

Evaluation date: 08/23/2010
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: State Statute or Regulation
Date achieved compliance: 08/23/2010
Evaluation lead agency: State

Evaluation date: 08/22/2008
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: State Statute or Regulation
Date achieved compliance: 09/04/2008

AGUA MANSA MRF, LLC (Continued) **1014386692**

Evaluation lead agency: State

FINDS:

Registry ID: 110055707622

Environmental Interest/Information System
STATE MASTER

B19 **BURRTEC WASTE INDUSTRIES, INC.** **AST** **A100417903**
SW **1830 AGUA MANSA RD** **N/A**
< 1/8 **RIVERSIDE, CA 92509**
0.052 mi.
276 ft. **Site 5 of 8 in cluster B**

Relative:
Lower

Actual:
886 ft.

AST:

Certified Unified Program Agencies:	Not reported
Owner:	Burrtec Waste Industries, Inc.
Total Gallons:	Not reported
CERSID:	10320859
Facility ID:	Not reported
Business Name:	Burrtec Waste Industries, Inc.
Phone:	(951) 786-0544
Fax:	(951) 786-0538
Mailing Address:	9890 Cherry Ave
Mailing Address City:	Fontana
Mailing Address State:	CA
Mailing Address Zip Code:	92335
Operator Name:	Agua Manda MRF LLC.
Operator Phone:	(951) 786-0544
Owner Phone:	(909) 429-4200
Owner Mail Address:	9890 Cherry Ave
Owner State:	CA
Owner Zip Code:	92335
Owner Country:	United States
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	CAL000162179

B20 **BURRTEC WASTE INDUSTRIES,AGUA MANSA** **AST** **A100417904**
SW **1850 AGUA MANSA RD** **N/A**
< 1/8 **JURUPA VALLEY, CA 92509**
0.058 mi.
307 ft. **Site 6 of 8 in cluster B**

Relative:
Lower

Actual:
884 ft.

AST:

Certified Unified Program Agencies:	Not reported
Owner:	Burrtec Waste Industries, Inc
Total Gallons:	Not reported
CERSID:	10320790
Facility ID:	Not reported

BURRTEC WASTE INDUSTRIES,AGUA MANSA (Continued) **A100417904**

Business Name:	Burrtec Waste Industries, Inc.
Phone:	(951) 786-0544
Fax:	(951) 786-0682
Mailing Address:	9890 Cherry Ave
Mailing Address City:	Fontana
Mailing Address State:	CA
Mailing Address Zip Code:	92335
Operator Name:	Burrtec Waste Industries, Inc.
Operator Phone:	(951) 786-9660
Owner Phone:	(909) 429-4200
Owner Mail Address:	9890 Cherry Ave
Owner State:	CA
Owner Zip Code:	92335
Owner Country:	United States
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	CAL000162179

B21 **BURRTEC WASTE INDUSTRIES INC** **RCRA-SQG** **1001967639**
SW **1850 ASUA MANSA RD** **FINDS** **CAR000071431**
< 1/8 **RIVERSIDE, CA 92509** **HAZNET**
0.058 mi. **ECHO**
307 ft. **Site 7 of 8 in cluster B**

Relative:
Lower

Actual:
884 ft.

RCRA-SQG:

Date form received by agency:	04/20/2000
Facility name:	BURRTEC WASTE INDUSTRIES INC
Facility address:	1850 ASUA MANSA RD RIVERSIDE, CA 92509
EPA ID:	CAR000071431
Contact:	BILL EDEN
Contact address:	1850 ASUA MANSA RD RIVERSIDE, CA 92509
Contact country:	US
Contact telephone:	(909) 786-0639
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	EDCO DISPOSAL
Owner/operator address:	1850 ASUA MANSA RD RIVERSIDE, CA 92509
Owner/operator country:	Not reported
Owner/operator telephone:	(909) 786-0639
Legal status:	Private
Owner/Operator Type:	Owner

BURRTEC WASTE INDUSTRIES INC (Continued) **1001967639**

Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

FINDS:

Registry ID: 110002935904

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

HAZNET:
envid: 1001967639
Year: 2015
GEPAID: CAR000071431
Contact: DEBBIE HANSEN
Telephone: 9094294200
Mailing Name: Not reported
Mailing Address: 9890 CHERRY AVE
Mailing City,St,Zip: FONTANA, CA 923350000

BURRTEC WASTE INDUSTRIES INC (Continued) **1001967639**

Gen County:	Riverside
TSD EPA ID:	AZD081705402
TSD County:	99
Waste Category:	Other inorganic solid waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.7375
Cat Decode:	Other inorganic solid waste
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside
envid:	1001967639
Year:	2015
GEPAID:	CAR000071431
Contact:	DEBBIE HANSEN
Telephone:	9094294200
Mailing Name:	Not reported
Mailing Address:	9890 CHERRY AVE
Mailing City,St,Zip:	FONTANA, CA 923350000
Gen County:	Riverside
TSD EPA ID:	CAL000330453
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.1
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside
envid:	1001967639
Year:	2015
GEPAID:	CAR000071431
Contact:	DEBBIE HANSEN
Telephone:	9094294200
Mailing Name:	Not reported
Mailing Address:	9890 CHERRY AVE
Mailing City,St,Zip:	FONTANA, CA 923350000
Gen County:	Riverside
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Other inorganic solid waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.375
Cat Decode:	Other inorganic solid waste
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside
envid:	1001967639
Year:	2015
GEPAID:	CAR000071431
Contact:	DEBBIE HANSEN
Telephone:	9094294200

BURRTEC WASTE INDUSTRIES INC (Continued) **1001967639**

Mailing Name:	Not reported
Mailing Address:	9890 CHERRY AVE
Mailing City,St,Zip:	FONTANA, CA 923350000
Gen County:	Riverside
TSD EPA ID:	CAT000613927
TSD County:	San Bernardino
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.3528
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside

envid:	1001967639
Year:	2014
GEPAID:	CAR000071431
Contact:	DEBBIE HANSEN
Telephone:	9094294200
Mailing Name:	Not reported
Mailing Address:	9890 CHERRY AVE
Mailing City,St,Zip:	FONTANA, CA 923350000
Gen County:	Riverside
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Other inorganic solid waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	3.2678
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

Click this hyperlink while viewing on your computer to access
63 additional CA_HAZNET: record(s) in the EDR Site Report.

ECHO:

Envid:	1001967639
Registry ID:	110002935904
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110002935904

B22 **BURRTEC WASTE INDUSTRIES-AGUA MANSA** **UST** **U003948804**
SW **1850 AGUA MANSA RD** **N/A**
< 1/8 **JURUPA VALLEY, CA 92509**
0.058 mi.
307 ft. **Site 8 of 8 in cluster B**

Relative:
Lower

Actual:
884 ft.

UST:

Facility ID:	123
Permitting Agency:	RIVERSIDE COUNTY
Latitude:	34.02065
Longitude:	-117.3858

RIVERSIDE CO. UST:

Region:	RIVERSIDE
Total Tanks:	1

C23 **SKANSKA-MAIN OFFICE** **AST** **S113087689**
SW **1995 AGUA MANSA RD** **HAZNET** **N/A**
1/8-1/4 **RIVERSIDE, CA 92509**
0.131 mi.
693 ft. **Site 1 of 3 in cluster C**

Relative:
Lower

Actual:
869 ft.

AST:

Certified Unified Program Agencies:	Not reported
Owner:	SKANSKA USA CIVIL WEST CA DIST INC
Total Gallons:	Not reported
CERSID:	10152101
Facility ID:	Not reported
Business Name:	Skanska USA Civil West
Phone:	951 684 5360
Fax:	Not reported
Mailing Address:	1995 AGUA MANSA RD
Mailing Address City:	RIVERSIDE
Mailing Address State:	CA
Mailing Address Zip Code:	92509
Operator Name:	Skanska
Operator Phone:	951 684 5360
Owner Phone:	9516845360
Owner Mail Address:	1995 Agua Mansa Road
Owner State:	CA
Owner Zip Code:	92509
Owner Country:	United States
Property Owner Name:	Skanska
Property Owner Phone:	951 684 5360
Property Owner Mailing Address:	1995 Agua Mansa Road
Property Owner City:	Riverside
Property Owner Stat :	CA
Property Owner Zip Code:	92509
Property Owner Country:	United States
EPAID:	CAL000163718

HAZNET:

envid:	S113087689
Year:	2015
GEPAID:	CAL000163718
Contact:	JERAMY JACKSON
Telephone:	9512352661
Mailing Name:	Not reported
Mailing Address:	1995 AGUA MANSA RD
Mailing City,St,Zip:	RIVERSIDE, CA 925090000
Gen County:	Riverside
TSD EPA ID:	CAD097030993
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.75
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside

envid:	S113087689
Year:	2015
GEPAID:	CAL000163718

SKANSKA-MAIN OFFICE (Continued) **S113087689**

Contact: JERAMY JACKSON
Telephone: 9512352661
Mailing Name: Not reported
Mailing Address: 1995 AGUA MANSA RD
Mailing City,St,Zip: RIVERSIDE, CA 925090000
Gen County: Riverside
TSD EPA ID: CAD097030993
TSD County: Los Angeles
Waste Category: Unspecified sludge waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.44619
Cat Decode: Unspecified sludge waste
Method Decode: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County: Riverside

envid: S113087689
Year: 2014
GEPAID: CAL000163718
Contact: BETH FAMIGLIETTI
Telephone: 9512058945
Mailing Name: Not reported
Mailing Address: 1995 AGUA MANSA RD
Mailing City,St,Zip: RIVERSIDE, CA 925090000
Gen County: Riverside
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.15
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: S113087689
Year: 2014
GEPAID: CAL000163718
Contact: BETH FAMIGLIETTI
Telephone: 9512058945
Mailing Name: Not reported
Mailing Address: 1995 AGUA MANSA RD
Mailing City,St,Zip: RIVERSIDE, CA 925090000
Gen County: Riverside
TSD EPA ID: CAD028409019
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.3
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: S113087689
Year: 2014

SKANSKA-MAIN OFFICE (Continued) **S113087689**

GEPAID:	CAL000163718
Contact:	BETH FAMIGLIETTI
Telephone:	9512058945
Mailing Name:	Not reported
Mailing Address:	1995 AGUA MANSA RD
Mailing City,St,Zip:	RIVERSIDE, CA 925090000
Gen County:	Riverside
TSD EPA ID:	CAD008302903
TSD County:	Los Angeles
Waste Category:	Unspecified organic liquid mixture
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.075
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

Click this hyperlink while viewing on your computer to access
419 additional CA_HAZNET: record(s) in the EDR Site Report.

C24 **SKANSKA** **UST** **U003886167**
SW **1995 AGUA MANSA RD** **N/A**
1/8-1/4 **JURUPA VALLEY, CA 92509**
0.131 mi.
693 ft. **Site 2 of 3 in cluster C**

Relative:
Lower

Actual:
869 ft.

UST:

Facility ID:	290
Permitting Agency:	RIVERSIDE COUNTY
Latitude:	34.022369
Longitude:	-117.38496

RIVERSIDE CO. UST:

Region:	RIVERSIDE
Total Tanks:	1

C25 **E L YEAGER CONSTRUCTION CO** **SWEEPS UST** **S101590024**
SW **1995 AGUA MANSA RD** **CA FID UST** **N/A**
1/8-1/4 **RIVERSIDE, CA 92502** **EMI**
0.131 mi. **NPDES**
693 ft. **Site 3 of 3 in cluster C** **WDS**

Relative:
Lower

Actual:
869 ft.

SWEEPS UST:

Status:	Active
Comp Number:	83
Number:	1
Board Of Equalization:	44-017848
Referral Date:	10-29-92
Action Date:	10-29-92
Created Date:	12-14-88
Owner Tank Id:	001498
SWRCB Tank Id:	33-000-000083-000001
Tank Status:	A
Capacity:	12000
Active Date:	10-29-92
Tank Use:	M.V. FUEL
STG:	P

E L YEAGER CONSTRUCTION CO (Continued) **S101590024**

Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 83
Number: 1
Board Of Equalization: 44-017848
Referral Date: 10-29-92
Action Date: 10-29-92
Created Date: 12-14-88
Owner Tank Id: 001498
SWRCB Tank Id: 33-000-000083-000002
Tank Status: A
Capacity: 500
Active Date: 10-29-92
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Active
Comp Number: 83
Number: 1
Board Of Equalization: 44-017848
Referral Date: 10-29-92
Action Date: 10-29-92
Created Date: 12-14-88
Owner Tank Id: 001498
SWRCB Tank Id: 33-000-000083-000003
Tank Status: A
Capacity: 10000
Active Date: 10-29-92
Tank Use: PETROLEUM
STG: W
Content: PETROLEUM WA
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 33002486
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7146845360
Mail To: Not reported
Mailing Address: 1995 AGUA MANSA RD
Mailing Address 2: Not reported
Mailing City,St,Zip: RIVERSIDE 92502
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

E L YEAGER CONSTRUCTION CO (Continued) **S101590024**

EMI:

Year:	1990
County Code:	33
Air Basin:	SC
Facility ID:	14479
Air District Name:	SC
SIC Code:	2951
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1993
County Code:	33
Air Basin:	SC
Facility ID:	14479
Air District Name:	SC
SIC Code:	2951
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1995
County Code:	33
Air Basin:	SC
Facility ID:	14479
Air District Name:	SC
SIC Code:	2951
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported

E L YEAGER CONSTRUCTION CO (Continued) **S101590024**

Region:	8
Regulatory Measure Id:	210773
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I010150
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	6/18/1993
STATUS CODE NAME:	Active
STATUS DATE:	6/18/1993
PLACE SIZE:	30
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Clark Peterson
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	951-684-5360
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	clark.peterson@skanska.com
OPERATOR NAME:	Skanska USA Civil West CA
OPERATOR ADDRESS:	1995 Agua Mansa Road
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Clark Peterson
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-684-5360
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	clark.peterson@skanska.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	970-759-6676
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported

E L YEAGER CONSTRUCTION CO (Continued) **S101590024**

CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Clark Peterson
CERTIFIER TITLE:	Vice President Environmental Health and Safety
CERTIFICATION DATE:	28-JUL-15
PRIMARY SIC:	4213-Trucking, Except Local
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	210773
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I010150
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	06/18/1993
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Skanska USA Civil West CA
Discharge Address:	1995 Agua Mansa Road
Discharge City:	Riverside
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported

E L YEAGER CONSTRUCTION CO (Continued) **S101590024**

DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

WDS:

Facility ID:	Santa Ana River 33I010150
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	E. L. YEAGER CONSTRUCTION CO
Agency Address:	PO BOX 87
Agency City,St,Zip:	RIVERSIDE 92502
Agency Contact:	Not reported
Agency Telephone:	Not reported
Agency Type:	Private
SIC Code:	0

E L YEAGER CONSTRUCTION CO (Continued) **S101590024**

SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

D26 **RYDER TRANSPORTATION SVCS #0563** **UST** **U003949046**
WSW **5880 20TH ST** **N/A**
1/8-1/4 **JURUPA VALLEY, CA 92509**
0.167 mi.
884 ft. **Site 1 of 4 in cluster D**

Relative:
Lower

Actual:
871 ft.

UST:

Facility ID:	660
Permitting Agency:	RIVERSIDE COUNTY
Latitude:	34.0209815
Longitude:	-117.389097

RIVERSIDE CO. UST:

Region:	RIVERSIDE
Total Tanks:	1

D27 **RYDER TRANSPORTATION SERVICES #Q563** **AST** **A100338051**
WSW **5880 20TH ST.** **N/A**
1/8-1/4 **RIVERSIDE, CA**
0.167 mi.
884 ft. **Site 2 of 4 in cluster D**

Relative:
Lower

Actual:
871 ft.

AST:

Certified Unified Program Agencies:	Riverside
Owner:	Ryder Transportation Services #Q563
Total Gallons:	2,150
CERSID:	Not reported
Facility ID:	Not reported
Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported

RYDER TRANSPORTATION SERVICES #Q563 (Continued) **A100338051**

Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported
Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

D28 **RYDER TRUCK RENTALS, INC.** **SLIC** **S101854140**
WSW **5880 20TH STREET** **N/A**
1/8-1/4 **RIVERSIDE, CA**
0.167 mi.
884 ft. **Site 3 of 4 in cluster D**

Relative:
Lower

Actual:
871 ft.

SLIC REG 8:

Type:	Soil
Facility Status:	Closed
Staff:	XXX
Substance:	TPH
Lead Agency:	Regional Board
Location Code:	Not reported
Thomas Bros Code:	Not reported

D29 **RYDER TRUCK RENTAL** **RCRA-SQG** **1000211843**
WSW **5880 20TH ST** **SLIC** **CAD981379878**
1/8-1/4 **RIVERSIDE, CA 92509** **SWEEPS UST**
0.167 mi. **HIST UST**
884 ft. **Site 4 of 4 in cluster D** **CA FID UST**
FINDS

Relative:
Lower

ECHO

Actual:
871 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	RYDER TRUCK RENTAL
Facility address:	5880 20TH ST RIVERSIDE, CA 92519
EPA ID:	CAD981379878
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09

RYDER TRUCK RENTAL (Continued) **1000211843**

Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: RYDER TRUCK RENTAL
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/04/1986
Site name: RYDER TRUCK RENTAL
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 10/20/2006

RYDER TRUCK RENTAL (Continued) **1000211843**

Date achieved compliance: 10/20/2006
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/20/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 10/20/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/20/2006
Evaluation lead agency: State

Evaluation date: 06/02/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 09/28/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 11/21/1995
Global Id: SLT8R1734113
Lead Agency: SANTA ANA RWQCB (REGION 8)
Lead Agency Case Number: Not reported
Latitude: 34.019994613531
Longitude: -117.390503883362
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: SLT8R173
File Location: Regional Board
Potential Media Affected: Soil
Potential Contaminants of Concern: Other Petroleum
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SWEEPS UST:
Status: Active
Comp Number: 8135
Number: 1
Board Of Equalization: 44-000631
Referral Date: 11-18-92
Action Date: 11-18-92

RYDER TRUCK RENTAL (Continued) **1000211843**

Created Date:	02-29-88
Owner Tank Id:	000927
SWRCB Tank Id:	33-000-008135-000001
Tank Status:	A
Capacity:	4000
Active Date:	11-18-92
Tank Use:	PETROLEUM
STG:	P
Content:	MOTOR OIL
Number Of Tanks:	5

Status:	Active
Comp Number:	8135
Number:	1
Board Of Equalization:	44-000631
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	000927
SWRCB Tank Id:	33-000-008135-000002
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	8135
Number:	1
Board Of Equalization:	44-000631
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	000927
SWRCB Tank Id:	33-000-008135-000003
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	8135
Number:	1
Board Of Equalization:	44-000631
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	000927
SWRCB Tank Id:	33-000-008135-000004
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92

RYDER TRUCK RENTAL (Continued) **1000211843**

Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 8135
Number: 1
Board Of Equalization: 44-000631
Referral Date: 11-18-92
Action Date: 11-18-92
Created Date: 02-29-88
Owner Tank Id: 000927
SWRCB Tank Id: 33-000-008135-000005
Tank Status: A
Capacity: 1500
Active Date: 11-18-92
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

HIST UST:
File Number: 0001F942
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F942.pdf
Region: STATE
Facility ID: 00000008135
Facility Type: Other
Other Type: REPAIR & FUELING
Contact Name: FRED OLIVARRIA
Telephone: 7147879710
Owner Name: RYDER TRUCK RENTAL INC.
Owner Address: 3600 N.W. 82ND AVE.
Owner City,St,Zip: MIAMI, FL 33166
Total Tanks: 0007

Tank Num: 001
Container Num: 1
Year Installed: 1973
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: 06
Container Construction Thickness: .202
Leak Detection: Visual, Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: 1973
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: .384
Leak Detection: Visual, Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: 1973

RYDER TRUCK RENTAL (Continued) **1000211843**

Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	.384
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	4
Year Installed:	1973
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	.384
Leak Detection:	Stock Inventor
Tank Num:	005
Container Num:	5
Year Installed:	1973
Tank Capacity:	00001500
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	.202
Leak Detection:	Visual
Tank Num:	006
Container Num:	6
Year Installed:	1973
Tank Capacity:	00000000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Visual
Tank Num:	007
Container Num:	7
Year Installed:	1973
Tank Capacity:	00000000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Visual

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID:	33002250
Regulated By:	UTNKA
Regulated ID:	00008135
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7147879712
Mail To:	Not reported
Mailing Address:	5880 20TH ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	RIVERSIDE 92519
Contact:	Not reported
Contact Phone:	Not reported

RYDER TRUCK RENTAL (Continued) **1000211843**

DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

FINDS:

Registry ID: 110002687263

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Registry ID: 110055696821

Environmental Interest/Information System
STATE MASTER

ECHO:
Envid: 1000211843
Registry ID: 110002687263
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002687263

30
NE
1/8-1/4
0.227 mi.
1196 ft.

Relative:
Higher

Actual:
940 ft.

CLUB CAR LLC **RCRA-SQG 1018155198**
1203 HALL AVE **ECHO CAR000256263**
JURUPA VALLEY, CA 92509

RCRA-SQG:
Date form received by agency: 09/21/2015
Facility name: CLUB CAR LLC
Facility address: 1203 HALL AVE
JURUPA VALLEY, CA 92509
EPA ID: CAR000256263
Mailing address: HALL AVE
JURUPA VALLEY, CA 92509
Contact: JEFFREY LEMELIN
Contact address: HALL AVE
JURUPA VALLEY, CA 92509
Contact country: US
Contact telephone: 951-403-9876
Contact email: JEFF.LEMELIN@IROC.COM
EPA Region: 09

CLUB CAR LLC (Continued) **1018155198**

Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: CLUB CAR LLC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 09/21/2015
Owner/Op end date: Not reported

Owner/operator name: AM PROPERTY INVESTORS
Owner/operator address: SPOLETO DR
PACIFIC PALISADES, CA 90272
Owner/operator country: US
Owner/operator telephone: 310-454-8190
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/27/2007
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 134
. Waste name: 134

. Waste code: 213
. Waste name: 213

. Waste code: 221
. Waste name: 221

. Waste code: 352
. Waste name: 352

CLUB CAR LLC (Continued) **1018155198**

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

ECHO:
Envid: 1018155198
Registry ID: 110066953416
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110066953416

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31 **NATIONSRENT, INC.** **UST** **U003799344**
South **2215 VIA CERRO** **N/A**
1/8-1/4 **RIVERSIDE, CA 92509**
0.230 mi.
1214 ft.

Relative:
Lower

Actual:
900 ft.

UST:
Facility ID: 540
Permitting Agency: RIVERSIDE COUNTY
Latitude: 34.0193734
Longitude: -117.3814159

E32 **FLYERS #469** **UST** **U004250221**
SW **5840 20TH ST** **N/A**
1/8-1/4 **JURUPA VALLEY, CA 92509**
0.244 mi.
1287 ft. **Site 1 of 2 in cluster E**

Relative:
Lower

Actual:
873 ft.

RIVERSIDE CO. UST:
Region: RIVERSIDE
Total Tanks: 3

E33 **FLYERS #469** **RCRA-CESQG** **1019322607**
SW **5840 20TH STREET** **CAL000403740**
1/8-1/4 **RIVERSIDE, CA 92509**
0.244 mi.
1287 ft. **Site 2 of 2 in cluster E**

Relative:
Lower

Actual:
873 ft.

RCRA-CESQG:
Date form received by agency: 09/21/2016
Facility name: FLYERS #469
Facility address: 5840 20TH STREET
RIVERSIDE, CA 92509
EPA ID: CAL000403740
Mailing address: LINDBERGH STREET
AUBURN, CA 95602
Contact: VANESSA ESTRADA
Contact address: LINDBERGH STREET
AUBURN, CA 95602
Contact country: US
Contact telephone: (530) 885-0401
Telephone ext.: 2102

FLYERS #469 (Continued) **1019322607**

Contact email: ENVIRONMENTAL@4FLYERS.COM
EPA Region: 09
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:
Owner/operator name: MPRM PROPERTIES, LLC
Owner/operator address: CALLE SOLEJAR
REDLANDS, CA 92373
Owner/operator country: US
Owner/operator telephone: (951) 315-2814
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/05/2015
Owner/Op end date: Not reported

Owner/operator name: FLYERS ENERGY LLC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/05/2015
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

FLYERS #469 (Continued) **1019322607**

. Waste code: 134
. Waste name: 134

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

F34 **CAN FIBRE** **RCRA-SQG** **1004676468**
ESE **1755 BROWN AVENUE** **FINDS** **CAR000085670**
1/8-1/4 **RIVERSIDE, CA 92509** **HAZNET**
0.244 mi. **NPDES**
1288 ft. **Site 1 of 3 in cluster F** **ECHO**

Relative:
Lower

Actual:
898 ft.

RCRA-SQG:
Date form received by agency: 01/17/2001
Facility name: CAN FIBRE
Facility address: 1755 BROWN AVE
RIVERSIDE, CA 92507
EPA ID: CAR000085670
Contact: DEBRA DICKERSON
Contact address: 1755 BROWN AVE
RIVERSIDE, CA 92507
Contact country: US
Contact telephone: (909) 682-8500
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: CAN FIBRE
Owner/operator address: 1755 BROWN AVE
RIVERSIDE, CA 92507
Owner/operator country: Not reported
Owner/operator telephone: (909) 682-8500
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No

CAN FIBRE (Continued) **1004676468**

Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

FINDS:

Registry ID: 110012229739

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

envid: 1004676468
Year: 2001
GEPAID: CAR000085670
Contact: --
Telephone: 9096828500
Mailing Name: Not reported
Mailing Address: 1755 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925070000
Gen County: Not reported
TSD EPA ID: CAT000613927
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.67
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1004676468
Year: 2001
GEPAID: CAR000085670
Contact: --
Telephone: 9096828500
Mailing Name: Not reported
Mailing Address: 1755 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925070000
Gen County: Not reported
TSD EPA ID: CAT000613893
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station

CAN FIBRE (Continued) **1004676468**

Tons: 0.12
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

NPDES:

Npdes Number:	Not reported
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	442414
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33MR000049
Program Type:	Region 8 - Scrap Metal Permit
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	11/07/2013
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Inland Compressing Company
Discharge Address:	1755 Brown Ave
Discharge City:	Jurupa Valley
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported

CAN FIBRE (Continued) **1004676468**

CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	442414
Order No:	Not reported
Regulatory Measure Type:	Region 8 - Scrap Metal Permit
Place Id:	Not reported
WDID:	8 33MR000049
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	11/4/2013
PROCESSED DATE:	11/7/2013
STATUS CODE NAME:	Active
STATUS DATE:	11/7/2013
PLACE SIZE:	21.5
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Brian Chen
FACILITY CONTACT TITLE:	General Manager
FACILITY CONTACT PHONE:	909-267-8889
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	brian@inlandcompressing.com
OPERATOR NAME:	Inland Compressing Company
OPERATOR ADDRESS:	1755 Brown Ave

CAN FIBRE (Continued) **1004676468**

OPERATOR CITY:	Jurupa Valley
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Brian Chen
OPERATOR CONTACT TITLE:	General Manager
OPERATOR CONTACT PHONE:	909-267-8889
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	brian@inlandcompressing.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	BRIAN CHEN
CERTIFIER TITLE:	GENERAL MANAGER
CERTIFICATION DATE:	04-NOV-13
PRIMARY SIC:	5093-Scrap and Waste Materials
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

ECHO:

Envid:	1004676468
Registry ID:	110012229739
DFR URL:	http://echo.epa.gov/detailed_facility_report?fid=110012229739

F35 **SOUTHLAND ENGINEERING** **AST** **A100337381**
ESE **1755 BROWN ST.** **N/A**
1/8-1/4 **RIVERSIDE, CA**
0.244 mi.
1288 ft. **Site 2 of 3 in cluster F**

Relative:
Lower

Actual:
898 ft.

AST:

Certified Unified Program Agencies:	Riverside
Owner:	Southland Engineering
Total Gallons:	4,000
CERSID:	Not reported
Facility ID:	Not reported
Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported
Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported
Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

F36 **INLAND EMPIRE TRUSS INC** **SWF/LF** **S104579463**
ESE **1755 BROWN AVE** **NPDES** **N/A**
1/8-1/4 **RIVERSIDE, CA 92509** **WDS**
0.244 mi.
1288 ft. **Site 3 of 3 in cluster F**

Relative:
Lower

Actual:
898 ft.

LOS ANGELES CO. LF:

Site ID:	2748
Alt. Address:	N/A
Site Contact:	Not reported
Site Contact Phone:	(951) 786-7781
Site Email:	Not reported
Site Website:	N/A
Site Type:	Out-of-County Facility
Site SWIS Number:	33-AA-0316
Beginning Operation Date:	N/A
Ending Operation Date:	N/A
Local Enforcement Agency:	County of Riverside Community Health Agency
Maximun Depth Fill(Ft):	N/A
Permitted Capacity:	199
Present Use:	Chipping and Grinding Activity Fac./ Op.
Remaining Capacity(Million):	N/A
Status:	Active
Waste Accepted:	Green Materials;
Hours of Operation:	Monday - Friday 6 am - 5 pm Saturday 6 am - 4 pm

INLAND EMPIRE TRUSS INC (Continued) **S104579463**

Disposal Area (Acre): N/A

Detail As Of 01/2014:

Operator Name:	Unknown
Operator Address:	Not reported
Operator City/State/Zip:	Not reported
Operator Contact:	Not reported
Operator Telephone:	Not reported
Operator Email:	Not reported
Owner Name:	Unknown
Owner Address:	Not reported
Owner City/State/Zip:	Not reported
Owner Contact:	Not reported
Owner Telephone:	Not reported
Owner Email:	Not reported

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	288993
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I019799
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	12/7/2012
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	9/26/2005
STATUS CODE NAME:	Terminated
STATUS DATE:	2/26/2013
PLACE SIZE:	22
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Debbie Meier
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	951-300-1758
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Inland Empire Truss Inc
OPERATOR ADDRESS:	1755 Brown Ave
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Dan Irwin
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-300-1758
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported

INLAND EMPIRE TRUSS INC (Continued) **S104579463**

OPERATOR TYPE:	Other
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	951-300-1758
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	David Baxter
CERTIFIER TITLE:	Director Of Engineering
CERTIFICATION DATE:	07-SEP-05
PRIMARY SIC:	2452-Prefabricated Wood Buildings and Components
SECONDARY SIC:	5099-Durable Goods, NEC
TERTIARY SIC:	Not reported

WDS:

Facility ID:	Santa Ana River 33I015784
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	9096828500
Facility Contact:	LEWIS GREEN
Agency Name:	CAN FIBRE OF RIVERSIDE
Agency Address:	1755 BROWN AVE.
Agency City,St,Zip:	RIVERSIDE 92509
Agency Contact:	LEWIS GREEN
Agency Telephone:	9096828500
Agency Type:	Private

INLAND EMPIRE TRUSS INC (Continued) **S104579463**

SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

37
East
1/8-1/4
0.250 mi.
1318 ft.

VARNER CONSTRUCTION
1893 BROWN AVE
RIVERSIDE, CA 92509

RCRA-SQG **1004675520**
LUST **CAR000073957**
FINDS
HAZNET
ECHO

Relative:
Higher

Actual:
914 ft.

RCRA-SQG:

Date form received by agency:	05/24/2000
Facility name:	VARNER CONSTRUCTION
Facility address:	1893 BROWN AVE RIVERSIDE, CA 92509
EPA ID:	CAR000073957
Contact:	ED ZIEMBA
Contact address:	1893 BROWN AVE RIVERSIDE, CA 92509
Contact country:	US
Contact telephone:	(909) 781-2920
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	STEVE VARNER
Owner/operator address:	1893 BROWN AVE RIVERSIDE, CA 92509
Owner/operator country:	Not reported

VARNER CONSTRUCTION (Continued) **1004675520**

Owner/operator telephone: (909) 781-2920
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

LUST:
Region: STATE
Global Id: T0606500417
Latitude: 34.0204461793474
Longitude: -117.375751998217
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 09/27/1995
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: UNK
Local Agency: RIVERSIDE COUNTY LOP
RB Case Number: 083302628T
LOC Case Number: 95084
File Location: Local Agency Warehouse
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0606500417
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE

VARNER CONSTRUCTION (Continued) **1004675520**

Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Global Id: T0606500417
Contact Type: Local Agency Caseworker
Contact Name: UNK
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: Not reported

Status History:
Global Id: T0606500417
Status: Open - Case Begin Date
Status Date: 01/30/1995

Global Id: T0606500417
Status: Open - Remediation
Status Date: 01/31/1995

Global Id: T0606500417
Status: Open - Site Assessment
Status Date: 01/31/1995

Global Id: T0606500417
Status: Completed - Case Closed
Status Date: 09/27/1995

Regulatory Activities:
Global Id: T0606500417
Action Type: Other
Date: 01/30/1995
Action: Leak Stopped

Global Id: T0606500417
Action Type: Other
Date: 01/31/1995
Action: Leak Reported

Global Id: T0606500417
Action Type: ENFORCEMENT
Date: 09/26/1995
Action: File review - #RCDEH Upload Site File 9/30/2015

Global Id: T0606500417
Action Type: ENFORCEMENT
Date: 09/27/1995
Action: Closure/No Further Action Letter - #RCDEH0927

Global Id: T0606500417
Action Type: REMEDIATION
Date: 11/17/1994
Action: Excavation

Global Id: T0606500417

VARNER CONSTRUCTION (Continued) **1004675520**

Action Type:	Other
Date:	01/30/1995
Action:	Leak Discovery

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083302628T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Diesel
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	AGUA MANSA (WILSON)
Enf Type:	CLOS
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	UNK
Global ID:	T0606500417
How Stopped Date:	1/30/1995
Enter Date:	2/24/1995
Date Confirmation of Leak Began:	1/31/1995
Date Preliminary Assessment Began:	Not reported
Discover Date:	1/30/1995
Enforcement Date:	Not reported
Close Date:	9/27/1995
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	2/19/1995
Date Remedial Action Underway:	7/24/1995
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	2/24/1995
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.0265539
Longitude:	-117.3753127
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	1
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	CAB
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL

VARNER CONSTRUCTION (Continued) **1004675520**

Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 95084
Employee: Malloy
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

VENTURA CO. LUST:
Region: VENTURA
Facility ID: 95084
Status: Case Closed

FINDS:

Registry ID: 110002937485

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

HAZNET:
envid: 1004675520
Year: 2008
GEPAID: CAR000073957
Contact: RICHARD DORMACK SHOP FOREMAN
Telephone: 9097812920
Mailing Name: Not reported
Mailing Address: 1893 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925090000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.75
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

VARNER CONSTRUCTION (Continued) **1004675520**

envid: 1004675520
Year: 2001
GEPAID: CAR000073957
Contact: RICHARD DORMACK SHOP FOREMAN
Telephone: 9097812920
Mailing Name: Not reported
Mailing Address: 1893 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925090000
Gen County: Not reported
TSD EPA ID: CAT080025711
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 2.91
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1004675520
Year: 2001
GEPAID: CAR000073957
Contact: RICHARD DORMACK SHOP FOREMAN
Telephone: 9097812920
Mailing Name: Not reported
Mailing Address: 1893 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925090000
Gen County: Not reported
TSD EPA ID: CAT000613927
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.57
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1004675520
Year: 2000
GEPAID: CAR000073957
Contact: RICHARD DORMACK SHOP FOREMAN
Telephone: 9097812920
Mailing Name: Not reported
Mailing Address: 1893 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925090000
Gen County: Not reported
TSD EPA ID: CAT000613927
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.16
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

ECHO:
Envid: 1004675520
Registry ID: 110002937485

VARNER CONSTRUCTION (Continued) **1004675520**

DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002937485

38
SW
1/4-1/2
0.292 mi.
1543 ft.

Relative:
Lower

Actual:
884 ft.

BRINE FAC,CRESTMORE **WMUDS/SWAT** **S103443354**
2100 AVALON ST. **N/A**
RIVERSIDE CA, CA

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.
Primary Waste:	PROCES
Primary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Private
Agency Name:	CERTAIN-TEED PROD CORP
Agency Department:	Not reported
Agency Address:	PO BOX 706
Agency City,St,Zip:	RIVERSIDE CA 92502
Agency Contact:	BOB ELLIOTT
Agency Telephone:	9096821881
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	Not reported
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	8
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	3272
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	True

BRINE FAC,CRESTMORE (Continued) **S103443354**

Solid Waste Assessment Test Program:	False
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Sub Chapter 15:	True
Regional Board Project Officer:	Not reported
Number of WMUDS at Facility:	0
Section Range:	Not reported
RCRA Facility:	No
Waste Discharge Requirements:	H
Self-Monitoring Rept. Frequency:	Quarterly Submittal
Waste Discharge System ID:	8 332001001
Solid Waste Information ID:	Not reported

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39 **FLEETWOOD VIA RICARDO** **LUST S106387361**
SSE **5300 VIA RICARDO** **NPDES N/A**
1/4-1/2 **RIVERSIDE, CA 92509**
0.386 mi.
2036 ft.

Relative:
Lower

Actual:
893 ft.

LUST:

Region:	STATE
Global Id:	T0606540693
Latitude:	34.01777112
Longitude:	-117.379775315
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/14/2010
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	YR
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	200420231
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Site History/Release Information Two 2,000 gallon gasoline USTs were removed along with associated piping and fuel dispensers in November 2003. Soil samples were collected beneath the dispensers at 2 feet and 5 feet bgs, beneath piping, adjacent to and west of the USTs at 6 feet bgs, and within the UST cavity at 2 feet and 6 feet bgs. Maximum concentrations were 3780 ppm TPHg (T2-6), 520 ppb B (T2-6), 52600 ppb T (T2-6), 20000 ppb E (T2-6), 522000 ppb X (T2-6), 46 ppb MTBE (LED2), ND<4000 ppb TBA (T2-6), 9.45 ppm lead (T2-6). Samples were analyzed for TPHg, BTEX and oxygenates. The site was placed into LOP on October 23, 2003 for further assessment. Assessment Two soil borings (SB-1 and SB-2) were advanced to groundwater (approximately 76 feet bgs) in the vicinity of the former USTs on April 16, 2004. Soil samples from SB-1 and SB-2 were collected at five-foot intervals to a maximum explored depth of 76.5 feet bgs. The highest concentrations were observed from soil samples collected from soil

FLEETWOOD VIA RICARDO (Continued) **S106387361**

boring SB-1 (UST cavity) at the 15 and 20 foot depths. Maximum concentrations: 350 ppm TPHg (SB-1 at 20 feet bgs), 0.13 ppm B (SB-1 at 20 feet bgs), 5.6 ppm T (SB-1 at 20 feet bgs), 3.8 ppm E (SB-1 at 20 feet bgs), 35 ppm X (SB-1 at 20 feet bgs), 0.53 ppm MTBE (SB-1 at 15 feet bgs), 0.36 ppm tert-Butylbenzene (SB-1 at 20 feet bgs), 1.2 ppm Naphthalene (SB-1 at 20 feet bgs), 5.6 ppm 1,2,4-Trimethylbenzene (SB-1 at 20 feet bgs), 2.7 ppm 1,3,5-Trimethylbenzene (SB-1 at 20 feet bgs), ND<0.50 ppm Ethanol and Methanol. SVE Pilot Testing One vapor extraction well (VE-1) was installed on July 8, 2006 near the southeast corner of the former UST location. SVE well VE-1 was installed to 30 feet bgs and screened between 15 and 30 feet bgs. Soil samples were collected at 5 foot intervals and select samples were analyzed for gasoline and VOCs by EPA Method 8260B. Soil samples collected at 10, 20 and 30 feet bgs were analyzed and were ND for all constituents tested. A SVE pilot test was conducted July 12th through 14th, 2006. The SVE test was proposed for 5-days but was terminated after 48 hours due to a VOC breakthrough. PID readings reported during the SVE test were between 92 to >9999 ppmV and were believed to be erroneous. The consultant stated that laboratory analysis results for vapor samples were at relatively low levels and were inconsistent with field PID readings and more consistent with soil data. The overall mass of vapor phase gasoline recovered over the 48-hour duration of system operation was estimated at 34 lbs (average of 0.7 lbs per hour). Flow rates at VE-1 fluctuated between 50 and 75 cfm. Maximum vapor concentrations were: 740 ppmV TPHg (VE1-3), 2.5 ppmV B (VE1-3), 110 ppmV T (VE1-3), 23 ppmV E (VE1-3), 149 ppmV X (VE1-3), ND MTBE, 11 ppmV 1,2,4 TMB (VE1-3), 5.5 ppmV 1,3,5, TMB (VE1-3). Closure was requested based on the results of the pilot test and five quarters of groundwater monitoring RCDEH denied closure and required the 5-day SVE test to be repeated since vapor concentrations increased over time and the test was terminated after two days. A 5-day SVE pilot test using VE-1 was performed February 17th through 23rd, 2009. Flow rates at VE-1 were erroneously reported to fluctuate between 98 and 269.5 cfm and later corrected to range from 84 to 146 cfm. PID readings throughout the SVE test ranged from 40.4 to >15,000 ppmV. The ROI was calculated to include the entire footprint of the former UST cavity and dispensers. MW-1 is screened from 60 to 95 feet bgs and VE-1 is screened between 15 to 30 feet bgs. The overall mass of vapor phase gasoline recovered over the 143-hr duration of system operation was estimated at 233 lbs (avg of 1.6 lbs/hr). Maximum vapor concentrations were: 1100 ppmV TPHg, 0.97 ppmV B, 80 ppmV T, 20 ppmV E, 176 ppmV X, ND<0.28 ppmV MTBE, 0.94 ppmV isopropylbenzene, 2.4 ppmV n-propylbenzene, 0.24 ppmV PCE, 0.20 ppmV sec-butylbenzene, 11 ppmV 1,2,4-TMB, 5.7 ppmV 1,3,5-TMB. Ending vapor concentrations for most constituents detected were higher at the end of the 5-day SVE pilot test than at the beginning of the test. Based on the elevated vapor concentrations detected and mass of vapor phase gasoline recovered during the 5-day SVE pilot test, a 30-day SVE test was required by RCDEH to clearly demonstrate that vapor recovery has reached the point of diminishing returns (asymptotic levels). Soil Excavation Excavation of contaminated soil was proposed in lieu of performing additional SVE testing to expedite site cleanup. Approximately 3200 tons of impacted soil was excavated March 1st through March 23rd, 2010. Twelve (12) confirmation soil samples were collected at the bottom and side walls of the approximately 8192 square feet excavation pit. All soil samples were non-detect for all constituents tested except for 0.006 ppm Xylene and 0.006 ppm 1,2,4

FLEETWOOD VIA RICARDO (Continued) **S106387361**

TMB detected in the deep soil sample collected at the west wall of the excavation pit (X24 Deep Wall-W@ approximately 30 feet bgs). Groundwater Monitoring To assess the potential for groundwater impact near the UST, one groundwater monitoring well (MW-1) was installed on July 19, 2004 approximately 20 feet southeast of the former UST cavity that is believed to be downgradient. Soil samples were analyzed at 5 foot intervals from 5 feet to 75 feet bgs. MW-1 was advanced to a depth of 95.5 feet bgs and screened from 56 to 95 feet bgs. Groundwater was encountered at 75 feet bgs. Analytical results for the groundwater sample collected from MW-1 were non-detect for all constituents tested. Maximum soil concentrations were at 65 feet bgs: ND<0.5 ppm TPHg, ND<0.001 ppm B, 0.004 ppm T, 0.002 ppm E, 0.012 ppm X, 0.011 ppm MTBE, ND<0.002 ppm tert-BBNZ, ND<0.002 ppm Napthalene, ND<0.001 ppm 1,2,4-TMB, ND<0.001 ppm 1,3,5-TMB. Five groundwater sampling events were conducted from August 2004 through October 2007. Maximum groundwater concentrations: ND<0.50 ppm TPHg, ND<0.5 ppb B, 0.6 ppb T (10/17/07), ND<1.0 ppb E, ND<1.0 ppb X, ND<5.0 ppb MTBE, 7.6 ppb Naphthalene (9/19/05). Water levels have fluctuated from 73.20 to 78.66 feet bgs. Anticipated groundwater flow direction is to the southeast towards the Santa Ana River. The closest domestic water supply well (Well 04 Old Skotty) is located approximately 1049 feet west of the site and according to the well report on Geotracker, VOCs have not been detected in this well. Regional Board concurred with closure on 5/13/2010 and the no further action/closure letter was issued 6/14/2010

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606540693
Contact Type:	Regional Board Caseworker
Contact Name:	TOM E. MBEKE-EKANEM
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	tmbeke-ekanem@waterboards.ca.gov
Phone Number:	9513202007

Global Id:	T0606540693
Contact Type:	Local Agency Caseworker
Contact Name:	YVONNE REYES
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	ayreyes@rivcocha.org
Phone Number:	9519558982

Status History:

Global Id:	T0606540693
Status:	Open - Case Begin Date
Status Date:	10/23/2003

Global Id:	T0606540693
Status:	Open - Site Assessment
Status Date:	12/05/2003

Global Id:	T0606540693

FLEETWOOD VIA RICARDO (Continued) **S106387361**

Status: Open - Remediation
Status Date: 02/10/2010

Global Id: T0606540693
Status: Completed - Case Closed
Status Date: 06/14/2010

Regulatory Activities:
Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 12/08/2008
Action: Staff Letter - #RCDEH120508

Global Id: T0606540693
Action Type: Other
Date: 12/04/2003
Action: Leak Discovery

Global Id: T0606540693
Action Type: Other
Date: 10/23/2003
Action: Leak Stopped

Global Id: T0606540693
Action Type: RESPONSE
Date: 10/12/2007
Action: Monitoring Report - Quarterly

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 01/14/2009
Action: Staff Letter - #RCDEH011409

Global Id: T0606540693
Action Type: Other
Date: 12/05/2003
Action: Leak Reported

Global Id: T0606540693
Action Type: REMEDIATION
Date: 03/01/2010
Action: Excavation

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 08/12/2009
Action: Staff Letter - #RCDEH081209

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 12/14/2009
Action: Staff Letter - #RCDEH121409

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 02/10/2010
Action: Staff Letter - #RCDEH021010

FLEETWOOD VIA RICARDO (Continued) **S106387361**

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 05/13/2010
Action: Staff Letter - #RCDEH051310

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 06/14/2010
Action: Closure/No Further Action Letter - #RCDEH Closure

Global Id: T0606540693
Action Type: RESPONSE
Date: 01/09/2009
Action: Well Installation Workplan

Global Id: T0606540693
Action Type: RESPONSE
Date: 04/08/2010
Action: Other Report / Document

Global Id: T0606540693
Action Type: REMEDIATION
Date: 07/12/2006
Action: Soil Vapor Extraction (SVE)

Global Id: T0606540693
Action Type: REMEDIATION
Date: 02/17/2009
Action: Soil Vapor Extraction (SVE)

Global Id: T0606540693
Action Type: RESPONSE
Date: 02/20/2009
Action: Other Report / Document

Global Id: T0606540693
Action Type: RESPONSE
Date: 01/28/2010
Action: Other Workplan

Global Id: T0606540693
Action Type: RESPONSE
Date: 06/13/2010
Action: Well Destruction Report

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 02/25/2008
Action: Technical Correspondence / Assistance / Other - #RCDEH 022508

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 08/30/2007
Action: Staff Letter - #RCDEH 083007

FLEETWOOD VIA RICARDO (Continued) **S106387361**

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Preliminary site assessment underway
Case Number:	Not reported
Local Case Num:	200420231
Case Type:	Undefined
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	WILSON / VIA CERRA
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	OM
How Stopped:	Close Tank
Leak Cause:	UNK
Leak Source:	UNK
Global ID:	T0606540693
How Stopped Date:	10/23/2003
Enter Date:	Not reported
Date Confirmation of Leak Began:	12/5/2003
Date Preliminary Assessment Began:	12/5/2003
Discover Date:	11/20/2003
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	Not reported
Latitude:	0
Longitude:	0
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	TME
Staff Initials:	KW
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	Not reported
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

FLEETWOOD VIA RICARDO (Continued) **S106387361**

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	200420231
Employee:	Reyes-LOP
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	407597
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I022830
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	9/4/2014
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	9/20/2010
PROCESSED DATE:	9/20/2010
STATUS CODE NAME:	Terminated
STATUS DATE:	9/4/2014
PLACE SIZE:	12.2
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Chris Godoy
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	951-208-7525
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	MVP RV Inv
OPERATOR ADDRESS:	5300 Via Ricardo Ave
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Sandie Kerrigan
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-208-7234
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California

FLEETWOOD VIA RICARDO (Continued) **S106387361**

DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	3792-Travel Trailers and Campers
SECONDARY SIC:	3716-Motor Homes
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Terminated
Agency Id:	0
Region:	8
Regulatory Measure Id:	407597
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I022830
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	09/20/2010
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	09/04/2014
Discharge Name:	MVP RV Inv
Discharge Address:	5300 Via Ricardo Ave
Discharge City:	Riverside
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported

FLEETWOOD VIA RICARDO (Continued) **S106387361**

FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

G40 **CERTAINTEED CORPORATION** **HAZNET** **S112866131**
WSW **2100 AVALON STREET** **HWP** **N/A**
1/4-1/2 **RIVERSIDE, CA 92509**
0.426 mi.
2250 ft. **Site 1 of 4 in cluster G**

Relative:
Higher

Actual:
911 ft.

HAZNET:

envid:	S112866131
Year:	1998
GEPAID:	CAC001085088
Contact:	LLOYD AMBLER
Telephone:	6103417713
Mailing Name:	Not reported
Mailing Address:	2100 AVALON AVE
Mailing City,St,Zip:	RIVERSIDE, CA 925090000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	115.4636
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

HWP:

EPA Id:	CAD990663320
Cleanup Status:	KNOWN GENERATORS
Latitude:	34.01919
Longitude:	-117.3917
Facility Type:	Historical - Non-Operating
Facility Size:	Not reported
Team:	Not reported
Supervisor:	Not reported
Site Code:	Not reported
Assembly District:	60
Senate District:	31
Public Information Officer:	Not reported
Public Information Officer:	Not reported

G41 **CERTAINTEED, RIVERSIDE** **HIST Cal-Sites** **S102008375**
WSW **2100 AVALON ST** **N/A**
1/4-1/2 **RIVERSIDE, CA 92509**
0.426 mi.
2250 ft. **Site 2 of 4 in cluster G**

Relative:
Higher

Actual:
911 ft.

Calsite:

Region:	CYPRESS
Facility ID:	33320002
Facility Type:	RP
Type:	RESPONSIBLE PARTY
Branch:	SB
Branch Name:	SO CAL - CYPRESS
File Name:	Not reported
State Senate District:	02011984
Status:	CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name:	CERTIFIED
Lead Agency:	N/A
NPL:	Not reported

CERTAINTEED, RIVERSIDE (Continued) **S102008375**

SIC Code:	32
SIC Name:	MANU - STONE, CLAY & GLASS PRODUCTS
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Not reported
Staff Member Responsible for Site:	Not reported
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	Not reported
Region Water Control Board Name:	Not reported
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	Not reported
State Assembly District Code:	66
State Senate District Code:	31
Facility ID:	33320002
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02011984
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	2100 AVALON STREET
Alternate City,St,Zip:	RIVERSIDE, CA 92502
Alternate Address:	2100 AVALON ST
Alternate City,St,Zip:	RIVERSIDE, CA 92509
Background Info:	Not reported
Comments Date:	01181996
Comments:	Our records do not indicate the actual date this site was
Comments Date:	01181996
Comments:	certified. Our records show 02/1984. We have used
Comments Date:	01181996
Comments:	02/01/1984 because this gives us the earliest statute of
Comments Date:	01181996
Comments:	limitations.
Comments Date:	01181996
Comments:	Not reported
Comments Date:	02011984

CERTAINTEED, RIVERSIDE (Continued) **S102008375**

Comments:	80 cubic yards of contaminated soil removed.
Comments Date:	02011984
Comments:	This certification was comfirmed by a report prepared by the
Comments Date:	02011984
Comments:	Auditor General. The Auditor General conducted an audit of
Comments Date:	02011984
Comments:	the Department's records to confirm a list of sites where
Comments Date:	02011984
Comments:	the Department was involved in the cleanup and the cleanup
Comments Date:	02011984
Comments:	had been completed. This Auditor General list became the
Comments Date:	02011984
Comments:	basis for our historical certification information. Many of
Comments Date:	02011984
Comments:	the sites on this list were handled by our Surveillance and
Comments Date:	02011984
Comments:	Enforcement Staff. Much of this work was in response to
Comments Date:	02011984
Comments:	complaints from the public or reports from industry and the
Comments Date:	02011984
Comments:	response action may have only addressed the immediate
Comments Date:	02011984
Comments:	problem and not the entire facility.
ID Name:	Not reported
ID Value:	Not reported
Alternate Name:	CERTAINTEED, RIVERSIDE
Alternate Name:	Not reported
Special Programs Code:	Not reported
Special Programs Name:	Not reported

G42 **CERTAINTEED CORP** **RCRA-SQG** **1000395862**
WSW **2100 AVALON ST.** **RESPONSE** **CAD990663320**
1/4-1/2 **RIVERSIDE, CA 92509** **ENVIROSTOR**
0.426 mi. **LUST**
2250 ft. **Site 3 of 4 in cluster G** **HIST UST**
CHMIRS
Relative: **LDS**
Higher **FTTS**
HIST FTTS
Actual: **FINDS**
911 ft. **EMI**
NPDES
WDS
ECHO

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	CERTAINTEED CORP
Facility address:	2100 AVALON ST
	RIVERSIDE, CA 92509
EPA ID:	CAD990663320
Mailing address:	BOX SEVENTH HUNDRED SIXTH
	RIVERSIDE, CA 92502
Contact:	Not reported
Contact address:	Not reported
	Not reported
Contact country:	US
Contact telephone:	Not reported

CERTAINTEED CORP (Continued) **1000395862**

Contact email: Not reported
EPA Region: 09
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: CERTAINTEEN CORPORATION
Owner/operator address: P.O. BOX 869
CITY NOT REPORTED, PA 99999
Owner/operator country: Not reported
Owner/operator telephone: (215) 687-5000
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: CERTAINTEEN CORPORATION
Owner/operator address: P.O. BOX 869
VALLEY FORGE, PA 19482
Owner/operator country: Not reported
Owner/operator telephone: (215) 687-5000
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/01/1996
Site name: CERTAINTEED CORP
Classification: Small Quantity Generator

Date form received by agency: 04/10/1990
Site name: CERTAINTEED CORPORATION
Classification: Large Quantity Generator

CERTAINTEED CORP (Continued) **1000395862**

Date form received by agency: 08/18/1980
Site name: CERTAINTEED CORP
Classification: Conditionally Exempt Small Quantity Generator

Corrective Action Summary:
Event date: 01/01/1990
Event: CA029ST

Facility Has Received Notices of Violations:
Regulation violated: FR - 263
Area of violation: Transporters - General
Date violation determined: 08/11/1988
Date achieved compliance: 11/28/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/25/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 08/11/1988
Date achieved compliance: 11/28/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/25/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 08/03/1988
Date achieved compliance: 11/28/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 08/06/1987
Date achieved compliance: 08/31/1987
Violation lead agency: State

CERTAINTEED CORP (Continued) **1000395862**

Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/06/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 263
Area of violation: Transporters - General
Date violation determined: 08/06/1987
Date achieved compliance: 08/31/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/06/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 12/12/1986
Date achieved compliance: 07/21/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/30/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/04/1986
Date achieved compliance: 08/04/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/04/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 12/19/1985
Date achieved compliance: 08/04/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL

CERTAINTEED CORP (Continued) **1000395862**

Enforcement action date: 07/23/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 09/25/1985
Date achieved compliance: 08/04/1986
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/23/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 08/11/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/28/1988
Evaluation lead agency: State

Evaluation date: 08/11/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 11/28/1988
Evaluation lead agency: State

Evaluation date: 08/03/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 11/28/1988
Evaluation lead agency: State

Evaluation date: 08/06/1987
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/31/1987
Evaluation lead agency: State

Evaluation date: 08/06/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 08/31/1987
Evaluation lead agency: State

Evaluation date: 12/12/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 07/21/1987

CERTAINTEED CORP (Continued) **1000395862**

Evaluation lead agency: State

Evaluation date: 08/04/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/04/1986
Evaluation lead agency: State

Evaluation date: 07/10/1986
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/10/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/19/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/04/1986
Evaluation lead agency: State

Evaluation date: 10/03/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/03/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/25/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/04/1986
Evaluation lead agency: EPA

Evaluation date: 07/30/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/23/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

RESPONSE:
Facility ID: 33320002

CERTAINTEED CORP (Continued) **1000395862**

Site Type:	State Response
Site Type Detail:	State Response or NPL
Acres:	20.8
National Priorities List:	NO
Cleanup Oversight Agencies:	NONE SPECIFIED
Lead Agency Description:	Not reported
Project Manager:	Not reported
Supervisor:	Thomas Cota
Division Branch:	Cleanup Cypress
Site Code:	Not reported
Site Mgmt. Req.:	NONE SPECIFIED
Assembly:	60
Senate:	31
Special Program Status:	Not reported
Status:	Certified
Status Date:	02/01/1984
Restricted Use:	NO
Funding:	Responsible Party
Latitude:	34.01982
Longitude:	-117.3954
APN:	NONE SPECIFIED
Past Use:	MANUFACTURING - OTHER
Potential COC :	Asbestos Containing Materials (ACM
Confirmed COC:	Asbestos Containing Materials (ACM
Potential Description:	SOIL
Alias Name:	110002144581
Alias Type:	EPA (FRS #)
Alias Name:	33320002
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	02/01/1984
Comments:	Our records do not indicate the actual date this site was certified. Our records show 02/1984. We have used 02/01/1984 because this gives us the earliest statute of limitations.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

ENVIROSTOR:

Facility ID:	80001506
Status:	* Inactive
Status Date:	01/01/2008
Site Code:	Not reported
Site Type:	Corrective Action
Site Type Detailed:	Corrective Action
Acres:	0

CERTAINTEED CORP (Continued) **1000395862**

NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Unknown
Division Branch: Cleanup Cypress
Assembly: 60
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 34.01919
Longitude: -117.3917
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD990663320
Alias Type: EPA Identification Number
Alias Name: 80001506
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 33320002
Status: Certified
Status Date: 02/01/1984
Site Code: Not reported
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 20.8
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Thomas Cota
Division Branch: Cleanup Cypress
Assembly: 60
Senate: 31
Special Program: Not reported
Restricted Use: NO

CERTAINTEED CORP (Continued) **1000395862**

Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 34.01982
Longitude: -117.3954
APN: NONE SPECIFIED
Past Use: MANUFACTURING - OTHER
Potential COC: Asbestos Containing Materials (ACM
Confirmed COC: Asbestos Containing Materials (ACM
Potential Description: SOIL
Alias Name: 110002144581
Alias Type: EPA (FRS #)
Alias Name: 33320002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 02/01/1984
Comments: Our records do not indicate the actual date this site was certified.
Our records show 02/1984. We have used 02/01/1984 because this gives us the earliest statute of limitations.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083300480T
Local Case Num: 91654
Case Type: Soil only
Substance: Diesel
Qty Leaked: Not reported
Abate Method: Not reported
Cross Street: 36TH
Enf Type: CLOS
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Not reported
Leak Cause: Not reported
Leak Source: Piping
Global ID: T0606500050
How Stopped Date: 6/28/1991
Enter Date: 7/21/1987
Date Confirmation of Leak Began: Not reported
Date Preliminary Assessment Began: Not reported
Discover Date: 7/1/1991

CERTAINTEED CORP (Continued) **1000395862**

Enforcement Date:	Not reported
Close Date:	10/22/1992
Date Prelim Assessment Workplan Submitted:	7/22/1991
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	7/21/1987
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.018806
Longitude:	-117.3917223
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	RS
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	91654
Employee:	Thompson
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

HIST UST:

File Number:	0001F4A6
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F4A6.pdf
Region:	STATE
Facility ID:	00000016439
Facility Type:	Other
Other Type:	MANUFACTURING
Contact Name:	ROY WINGARTNER
Telephone:	7146821881
Owner Name:	CERTAINTEED CORPORATION
Owner Address:	750 SWEDESFORD RD.
Owner City,St,Zip:	VALLEY FORGE, PA 19482

CERTAINTEED CORP (Continued) **1000395862**

Total Tanks: 0004

Tank Num: 001
Container Num: #1
Year Installed: 1974
Tank Capacity: 00050000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4"
Leak Detection: Visual, Stock Inventor

Tank Num: 001
Container Num: #1
Year Installed: 1974
Tank Capacity: 00050000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4"
Leak Detection: Visual, Stock Inventor

Tank Num: 002
Container Num: #2
Year Installed: 1966
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4"
Leak Detection: None

Tank Num: 002
Container Num: #2
Year Installed: 1966
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4"
Leak Detection: None

Tank Num: 003
Container Num: #3
Year Installed: 1976
Tank Capacity: 00020000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 3/32
Leak Detection: None

Tank Num: 003
Container Num: #3
Year Installed: 1976
Tank Capacity: 00020000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 3/32
Leak Detection: None

Tank Num: 004

CERTAINTEED CORP (Continued) **1000395862**

Container Num:	#4
Year Installed:	1966
Tank Capacity:	00250000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	8
Leak Detection:	None

Tank Num:	004
Container Num:	#4
Year Installed:	1966
Tank Capacity:	00250000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	8
Leak Detection:	None

Click here for Geo Tracker PDF:

CHMIRS:

OES Incident Number:	12-5953
OES notification:	10/02/2012
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Industrial Plant
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)

CERTAINTEED CORP (Continued) **1000395862**

Other:	Not reported
Date/Time:	1700
Year:	2012
Agency:	SoCal Edison
Incident Date:	10/1/2012
Admin Agency:	Riverside City Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Mineral Oil from 1972 pad mount transformer
Quantity Released:	1
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Equipment failure caused this transformer to release to the concrete.

LDS:

Global Id:	L10004773685
Latitude:	34.01983
Longitude:	-117.3920
Case Type:	Land Disposal Site
Status:	Completed - Case Closed
Status Date:	11/02/2009
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Caseworker:	KDP
Local Agency:	Not reported
RB Case Number:	8 332001001
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Not reported
EDR Link ID:	L10004773685
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

FTTS INSP:

Inspection Number:	19871027CA001 1
Region:	09

CERTAINTEED CORP (Continued) **1000395862**

Inspection Date: 10/27/87
Inspector: BERMAN
Violation occurred: Yes
Investigation Type: Section 6 PCB State Conducted
Investigation Reason: Neutral Scheme, State
Legislation Code: TSCA
Facility Function: User

HIST FTTS INSP:
Inspection Number: 19871027CA001 1
Region: 09
Inspection Date: Not reported
Inspector: BERMAN
Violation occurred: Yes
Investigation Type: Section 6 PCB State Conducted
Investigation Reason: Neutral Scheme, State
Legislation Code: TSCA
Facility Function: User

FINDS:

Registry ID: 110002144581

Environmental Interest/Information System

California Department of Toxic Substances Control EnviroStor System (DTSC-EnviroStor) is an online search and Geographic Information System (GIS) tool for identifying sites that have known contamination or sites for which there may be reasons to investigate further. The EnviroStor database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites.

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Registry ID: 110055672106

CERTAINTEED CORP (Continued) **1000395862**

Environmental Interest/Information System
STATE MASTER

EMI:

Year:	1987
County Code:	33
Air Basin:	SC
Facility ID:	16952
Air District Name:	SC
SIC Code:	3317
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	8
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2

Year:	1990
County Code:	33
Air Basin:	SC
Facility ID:	16952
Air District Name:	SC
SIC Code:	3317
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	287720
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I003002
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported

CERTAINTEED CORP (Continued) **1000395862**

Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	4/2/1992
STATUS CODE NAME:	Terminated
STATUS DATE:	4/2/1992
PLACE SIZE:	40
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	James A Burke
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	714-628-1881
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Certainteed Corp
OPERATOR ADDRESS:	PO Box 706
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92502
OPERATOR CONTACT NAME:	James A Burke
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	714-682-1881
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	714-628-1881
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	3292-Asbestos Products

CERTAINTEED CORP (Continued) **1000395862**

SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

WDS:
Facility ID: Santa Ana River 33I015505
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 8
Facility Telephone: 9098263000
Facility Contact: HODGE JOHN
Agency Name: UNIVERSAL FOREST PRODUCTS
Agency Address: PO BOX 3589
Agency City,St,Zip: RIVERSIDE 925193589
Agency Contact: SCOTT W. CONKLIN
Agency Telephone: 9098263000
Agency Type: Private
SIC Code: 0
SIC Code 2: Not reported
Primary Waste Type: Not reported
Primary Waste: Not reported
Waste Type2: Not reported
Waste2: Not reported
Primary Waste Type: Not reported
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 0
Baseline Flow: 0
Reclamation: Not reported
POTW: Not reported
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

ECHO:
Envid: 1000395862
Registry ID: 110002144581
DFR URL: http://echo.epa.gov/detailed_facility_report?fid=110002144581

G43 **CERTAIN-TEED CORPORATION** **LUST** **S105025842**
WSW **2100 AVALON** **HIST CORTESE** **N/A**
1/4-1/2 **RIVERDALE, CA 92509** **NPDES**
0.426 mi.
2250 ft. **Site 4 of 4 in cluster G**

Relative:
Higher

Actual:
911 ft.

LUST:

Region:	STATE
Global Id:	T0606500050
Latitude:	34.0180598788382
Longitude:	-117.395907533096
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/22/1992
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	SCB
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	083300480T
LOC Case Number:	91654
File Location:	Local Agency Warehouse
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500050
Contact Type:	Regional Board Caseworker
Contact Name:	ROSE SCOTT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	rscott@waterboards.ca.gov
Phone Number:	9513206375

Global Id:	T0606500050
Contact Type:	Local Agency Caseworker
Contact Name:	SHARON BOLTINGHOUSE
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	sbolting@rivcocha.org
Phone Number:	9519558980

Status History:

Global Id:	T0606500050
Status:	Open - Case Begin Date
Status Date:	06/28/1991

Global Id:	T0606500050
Status:	Open - Site Assessment
Status Date:	07/22/1991

Global Id:	T0606500050
Status:	Open - Remediation
Status Date:	04/02/1992

Global Id:	T0606500050

CERTAIN-TEED CORPORATION (Continued) **S105025842**

Status: Completed - Case Closed
Status Date: 10/22/1992

Regulatory Activities:
Global Id: T0606500050
Action Type: Other
Date: 06/28/1991
Action: Leak Stopped

Global Id: T0606500050
Action Type: Other
Date: 07/22/1991
Action: Leak Reported

Global Id: T0606500050
Action Type: ENFORCEMENT
Date: 10/21/1992
Action: File review - #RCDEH Upload Site File 4/21/2010

Global Id: T0606500050
Action Type: ENFORCEMENT
Date: 10/22/1992
Action: Closure/No Further Action Letter - #RCDEH1022

Global Id: T0606500050
Action Type: REMEDIATION
Date: 04/02/1992
Action: Excavation

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 083300480T

NPDES:
Npdes Number: CAS000001
Facility Status: Active
Agency Id: 0
Region: 8
Regulatory Measure Id: 210894
Order No: 97-03-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 8 33I015505
Program Type: Industrial
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 12/01/1999
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: UFP Riverside LLC
Discharge Address: 2801 E Beltline Ave NE
Discharge City: Grand Rapids
Discharge State: Michigan
Discharge Zip: 49525

CERTAIN-TEED CORPORATION (Continued) **S105025842**

RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

CERTAIN-TEED CORPORATION (Continued) **S105025842**

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	210894
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I015505
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	12/1/1999
STATUS CODE NAME:	Active
STATUS DATE:	12/1/1999
PLACE SIZE:	40
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Marwan Salem
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	909-826-3000
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	MSALEM@UFPI.COM
OPERATOR NAME:	UFP Riverside LLC
OPERATOR ADDRESS:	2801 E Beltline Ave NE
OPERATOR CITY:	Grand Rapids
OPERATOR STATE:	Michigan
OPERATOR ZIP:	49525
OPERATOR CONTACT NAME:	Robert Dickens
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	616-364-6161
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	rdickens@ufpi.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Michigan
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported

CERTAIN-TEED CORPORATION (Continued) **S105025842**

CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Riverside Canal
CERTIFIER NAME:	Jason Croy
CERTIFIER TITLE:	GMO
CERTIFICATION DATE:	12-JUN-15
PRIMARY SIC:	2421-Sawmills and Planing Mills, General
SECONDARY SIC:	2439-Structural Wood Members, NEC
TERTIARY SIC:	Not reported

H44 **INLAND CONCRETE** **LUST** **1000151916**
SW **2434** **WMUDS/SWAT** **N/A**
1/4-1/2 **RIVERSIDE, CA 92509** **HIST UST**
0.468 mi. **CA FID UST**
2471 ft. **Site 1 of 2 in cluster H** **HIST CORTESE**
NPDES

Relative:
Lower

Actual:
844 ft.

LUST:

Region:	STATE
Global Id:	T0606500028
Latitude:	34.01453
Longitude:	-117.389418
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	04/04/1989
Lead Agency:	RIVERSIDE COUNTY LOP
Case Worker:	UNK
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	083300195T
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0606500028
Contact Type:	Regional Board Caseworker
Contact Name:	PATRICIA HANNON
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	phannon@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0606500028
Contact Type:	Local Agency Caseworker

INLAND CONCRETE (Continued) **1000151916**

Contact Name: UNK
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: Not reported

Status History:
Global Id: T0606500028
Status: Open - Case Begin Date
Status Date: 10/02/1986

Global Id: T0606500028
Status: Open - Site Assessment
Status Date: 03/01/1987

Global Id: T0606500028
Status: Completed - Case Closed
Status Date: 04/04/1989

Regulatory Activities:
Global Id: T0606500028
Action Type: Other
Date: 10/02/1986
Action: Leak Reported

Region: STATE
Global Id: T0606500551
Latitude: 34.015251586444
Longitude: -117.390072459
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 10/15/2000
Lead Agency: RIVERSIDE COUNTY LOP
Case Worker: SCB
Local Agency: RIVERSIDE COUNTY LOP
RB Case Number: 083303309T
LOC Case Number: 9814657
File Location: Local Agency Warehouse
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0606500551
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Global Id: T0606500551

INLAND CONCRETE (Continued) **1000151916**

Contact Type: Local Agency Caseworker
Contact Name: SHARON BOLTINGHOUSE
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: sbolting@rivcocha.org
Phone Number: 9519558980

Status History:
Global Id: T0606500551
Status: Open - Case Begin Date
Status Date: 10/26/1998

Global Id: T0606500551
Status: Completed - Case Closed
Status Date: 10/15/2000

Regulatory Activities:
Global Id: T0606500551
Action Type: Other
Date: 10/26/1998
Action: Leak Stopped

Global Id: T0606500551
Action Type: ENFORCEMENT
Date: 10/15/2000
Action: Closure/No Further Action Letter - #Riv Co Closure

Global Id: T0606500551
Action Type: Other
Date: 10/26/1998
Action: Leak Reported

Global Id: T0606500551
Action Type: ENFORCEMENT
Date: 10/14/2000
Action: File review - #RCDEH Upload Site File 4/23/2015

Global Id: T0606500551
Action Type: Other
Date: 10/26/1998
Action: Leak Discovery

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Leak being confirmed
Case Number: 083303309T
Local Case Num: 9814657
Case Type: Soil only
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: Not reported
Cross Street: 24TH

INLAND CONCRETE (Continued) **1000151916**

Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0606500551
How Stopped Date:	Not reported
Enter Date:	12/15/1998
Date Confirmation of Leak Began:	1/1/1965
Date Preliminary Assessment Began:	Not reported
Discover Date:	10/26/1998
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	12/15/1998
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.0152181
Longitude:	-117.3905682
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	CAB
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	9814657
Employee:	Malloy
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

INLAND CONCRETE (Continued) **1000151916**

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Not reported
Agency Name:	Not reported
Agency Department:	Not reported
Agency Address:	Not reported
Agency City,St,Zip:	Not reported
Agency Contact:	Not reported
Agency Telephone:	Not reported
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	Not reported
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	8
Facility Type:	Not reported
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	Not reported
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	False
Solid Waste Assessment Test Program:	True
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Not reported
Sub Chapter 15:	False
Regional Board Project Officer:	MA
Number of WMUDS at Facility:	1
Section Range:	Not reported
RCRA Facility:	Not reported
Waste Discharge Requirements:	Not reported
Self-Monitoring Rept. Frequency:	Not reported
Waste Discharge System ID:	8 330017NUR
Solid Waste Information ID:	33-AA-0073

HIST UST:

File Number:	0001F716
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F716.pdf

INLAND CONCRETE (Continued) **1000151916**

Region:	STATE
Facility ID:	00000020173
Facility Type:	Other
Other Type:	MANUFACTURER
Contact Name:	LYNCH, THOMAS D.
Telephone:	7147889720
Owner Name:	INLAND CONCRETE ENTERPRISES,
Owner Address:	2434 RUBIDOUX BLVD.
Owner City,St,Zip:	RIVERSIDE, CA 92509
Total Tanks:	0003
Tank Num:	001
Container Num:	1
Year Installed:	1981
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1981
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1974
Tank Capacity:	00001900
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID:	33003082
Regulated By:	UTNKA
Regulated ID:	00020173
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7147889720
Mail To:	Not reported
Mailing Address:	2434 RUBIDOUX BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	RIVERSIDE 92509
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported

INLAND CONCRETE (Continued) **1000151916**

Status: Active

HIST CORTESE:
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 083303309T

Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 083300195T

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	403268
Order No:	Not reported
Regulatory Measure Type:	No Exposure Certification
Place Id:	Not reported
WDID:	8 33NEC000135
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	7/22/2015
PROCESSED DATE:	5/6/2010
STATUS CODE NAME:	Active
STATUS DATE:	7/22/2015
PLACE SIZE:	35
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Pierre Cabello
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	951-241-8923
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	pierre.cabello@oldcaste.com
OPERATOR NAME:	OldCastle Precast Inc
OPERATOR ADDRESS:	2434 Rubidoux Blvd
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Pierre Cabello
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-241-8923
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	pierre.cabello@oldcaste.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported

INLAND CONCRETE (Continued) **1000151916**

DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	559-416-9062
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	santa ana river
CERTIFIER NAME:	PIERRE CABELLO
CERTIFIER TITLE:	SERVICE MANAGER
CERTIFICATION DATE:	25-AUG-16
PRIMARY SIC:	3272-Concrete Products, Except Block and Brick
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

Npdes Number:	Not reported
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	403268
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33NEC000135
Program Type:	No Exposure Certification
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	05/06/2010
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	OldCastle Precast Inc
Discharge Address:	2434 Rubidoux Blvd
Discharge City:	Riverside
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported

INLAND CONCRETE (Continued) **1000151916**

PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

H45 **INLAND CONCRETE ENTERPRISES** **LUST** **1006837231**
SW **2434 RUBIDOUX BLVD** **SWEEPS UST** **N/A**
1/4-1/2 **RIVERSIDE, CA 92509** **FINDS**
0.468 mi. **WDS**
2471 ft. **Site 2 of 2 in cluster H**

Relative:
Lower

Actual:
844 ft.

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083300195T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Diesel
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	24TH
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0606500028
How Stopped Date:	Not reported
Enter Date:	5/20/1987
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	Not reported
Enforcement Date:	Not reported
Close Date:	4/4/1989
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	3/1/1987
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	5/20/1987
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.0152181
Longitude:	-117.3905682
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	PAH
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported

INLAND CONCRETE ENTERPRISES (Continued) **1006837231**

Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

SWEEPS UST:
Status: Active
Comp Number: 20173
Number: 1
Board Of Equalization: 44-018072
Referral Date: 11-03-92
Action Date: 11-03-92
Created Date: 02-29-88
Owner Tank Id: 000131
SWRCB Tank Id: 33-000-020173-000001
Tank Status: A
Capacity: 9970
Active Date: 11-03-92
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 2

Status: Active
Comp Number: 20173
Number: 1
Board Of Equalization: 44-018072
Referral Date: 11-03-92
Action Date: 11-03-92
Created Date: 02-29-88
Owner Tank Id: 000131
SWRCB Tank Id: 33-000-020173-000002
Tank Status: A
Capacity: 5000
Active Date: 11-03-92
Tank Use: M.V. FUEL
STG: P
Content: LEADED
Number Of Tanks: Not reported

FINDS:

Registry ID: 110013981290

Environmental Interest/Information System
AIR EMISSIONS CLASSIFICATION UNKNOWN

STATE MASTER

WDS:
Facility ID: Santa Ana River 33I001905
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and

INLAND CONCRETE ENTERPRISES (Continued) **1006837231**

	repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	INLAND CONCRETE ENTERPRISES
Agency Address:	2434 Rubidoux Blvd
Agency City,St,Zip:	Riverside 925092187
Agency Contact:	MICHAEL L CHRISTENSEN
Agency Telephone:	9497889720
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

---

46 **RIOS RECYCLING FACILITY** **SWF/LF** **S113473424**
SE **5190 WILSON ST.** **N/A**
1/4-1/2 **RIVERSIDE, CA**
0.499 mi.
2637 ft.

Relative:
Lower

Actual:
877 ft.

SWF/LF (SWIS):

Region:	STATE
Facility ID:	33-AA-0355
Lat/Long:	34.0205 / -117.3744
Owner Name:	Michael Madrid
Owner Telephone:	9516834300
Owner Address:	Not reported
Owner Address2:	5190 Wilson St.
Owner City,St,Zip:	Riverside, CA 92509
Operational Status:	Active
Operator:	Chayo Rios

RIOS RECYCLING FACILITY (Continued) **S113473424**

Operator Phone:	9513771363
Operator Address:	Not reported
Operator Address2:	P.O. Box 1463
Operator City,St,Zip:	Chino Hills, CA 91709
Permit Date:	03/20/2013
Permit Status:	Notification
Permitted Acreage:	$3.20
Activity:	Chipping and Grinding Activity Fac./ Op.
Regulation Status:	Notification
Landuse Name:	Not reported
GIS Source:	Map
Category:	Composting
Unit Number:	01
Inspection Frequency:	Quarterly
Accepted Waste:	Green Materials,Wood waste
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	Not reported
SWIS Num:	33-AA-0355
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	199
Actual Throughput with Units:	Tons/day
Permitted Capacity with Units:	62400
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Tons/year
Lat/Long:	34.0205 / -117.3744

47
SSE
1/2-1
0.611 mi.
3224 ft.

SIERRA ALUMINUM CO.
2345 FLEETWOOD DRIVE
RIVERSIDE, CA 92509

ENVIROSTOR **S100220249**
CHMIRS **N/A**
NPDES

Relative:
Lower

Actual:
886 ft.

ENVIROSTOR:

Facility ID:	71002953
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress
Assembly:	60
Senate:	31
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.01506
Longitude:	-117.3787
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED

SIERRA ALUMINUM CO. (Continued) **S100220249**

Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD982002503
Alias Type: EPA Identification Number
Alias Name: 110000479633
Alias Type: EPA (FRS #)
Alias Name: 71002953
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CHMIRS:
OES Incident Number: 012197
OES notification: Not reported
OES Date: Not reported
OES Time: Not reported
Date Completed: 04-AUG-90
Property Use: 700
Agency Id Number: 33100
Agency Incident Number: 9031826
Time Notified: 2100
Time Completed: 2400
Surrounding Area: 700
Estimated Temperature: 76
Property Management: P
More Than Two Substances Involved?: N
Resp Agncy Personel # Of Decontaminated: 0
Responding Agency Personel # Of Injuries: 0
Responding Agency Personel # Of Fatalities: 0
Others Number Of Decontaminated: 0
Others Number Of Injuries: 0
Others Number Of Fatalities: 0
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: JA TAYLOR FC 938
Report Date: 05-AUG-90
Facility Telephone: 714 247-0604

SIERRA ALUMINUM CO. (Continued) **S100220249**

Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	04-AUG-90
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	30-MAY-91
Substance:	Not reported
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	N
Description:	Not reported
OES Incident Number:	12-0651
OES notification:	02/01/2012
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported

SIERRA ALUMINUM CO. (Continued) **S100220249**

Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Drainage swale
Spill Site:	Industrial Plant
Cleanup By:	None
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1200
Year:	2012
Agency:	Sierra Aluminium Company
Incident Date:	1/31/2012
Admin Agency:	Riverside City Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Drainage swale
E Date:	Not reported
Substance:	Cooling Tower Water
Quantity Released:	10,000
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	RP states that a pump seal failed causing the release of cooling tower water to a drainage swale. The storm drain system would discharge into the Santa Ana River. However, the water has not been detected any further than 100' into the drainage swale. The estimated amount of the release is in excess of 10,000 gallons.

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0

SIERRA ALUMINUM CO. (Continued) **S100220249**

Region:	8
Regulatory Measure Id:	210705
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I002351
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/31/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Sierra Aluminum Company
Discharge Address:	2345 Fleetwood Drive
Discharge City:	Riverside
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported

SIERRA ALUMINUM CO. (Continued) **S100220249**

CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	210705
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I002351
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	5/9/2008
PROCESSED DATE:	3/31/1992
STATUS CODE NAME:	Active
STATUS DATE:	3/31/1992
PLACE SIZE:	5
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Naro S Kuch
FACILITY CONTACT TITLE:	Environmental Manager
FACILITY CONTACT PHONE:	951-781-7800
FACILITY CONTACT PHONE EXT:	3115
FACILITY CONTACT EMAIL:	nkuch@sierraaluminum.com
OPERATOR NAME:	Sierra Aluminum Company
OPERATOR ADDRESS:	2345 Fleetwood Drive
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Naro S Kuch
OPERATOR CONTACT TITLE:	Environmental Manager
OPERATOR CONTACT PHONE:	951-781-7800
OPERATOR CONTACT PHONE EXT:	3115
OPERATOR CONTACT EMAIL:	nkuch@sierraaluminium.com
OPERATOR TYPE:	Private Business

SIERRA ALUMINUM CO. (Continued) **S100220249**

DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	951-934-4014
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Naro Kuch
CERTIFIER TITLE:	Environmental Manager
CERTIFICATION DATE:	03-JUN-15
PRIMARY SIC:	3354-Aluminum Extruded Products
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

Count: 1 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BLOOMINGTON	S107736446	HIGH SCHOOL - CEDAR AVENUE	SANTA ANA AVENUE/CEDAR AVENUE	92316	ENVIROSTOR, SCH

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 09/14/2016
Date Data Arrived at EDR: 10/04/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/10/2016
Date Data Arrived at EDR: 10/20/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 78

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 10/10/2016
Date Data Arrived at EDR: 10/20/2016
Date Made Active in Reports: 01/06/2017
Number of Days to Update: 78
Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44
Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44
Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/13/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/15/2016
Date Data Arrived at EDR: 11/29/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/15/2016
Date Data Arrived at EDR: 11/29/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 43

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 10/31/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 10/31/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/15/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 66

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/15/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 37

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015
Date Data Arrived at EDR: 02/19/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 105

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 02/12/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 112
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 118
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/24/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

SLIC: Statewide SLIC Cases

Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 40

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 12/03/2015
Date Data Arrived at EDR: 02/04/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 120
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52
Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 02/05/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 35
Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/24/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016
Date Data Arrived at EDR: 04/27/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 37

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016
Date Data Arrived at EDR: 02/05/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 119

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/26/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 10/31/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/27/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 01/03/2017
Date Data Arrived at EDR: 01/04/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 57

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 01/04/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/19/2016
Date Data Arrived at EDR: 12/20/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 08/25/2016
Date Data Arrived at EDR: 08/26/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 49

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/13/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/31/2016
Next Scheduled EDR Contact: 02/13/2017
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 36
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 10/31/2016
Date Data Arrived at EDR: 11/01/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 78
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 08/31/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 34
Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27
Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 12/05/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 67
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 12/01/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 35

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/27/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 48

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 01/24/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/06/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 45

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 37

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 83

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 01/25/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 37

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 37

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 10/11/2016
Date Data Arrived at EDR: 11/16/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 02/15/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/10/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/23/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 133
Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77
Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74
Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2016
Date Data Arrived at EDR: 08/22/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 81
Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35
Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/10/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016
Date Data Arrived at EDR: 04/28/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 127
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 02/17/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 02/17/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/29/2016
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 35
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/06/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 02/01/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 77

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 36

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 03/02/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/05/2016
Date Data Arrived at EDR: 09/01/2016
Date Made Active in Reports: 09/23/2016
Number of Days to Update: 22

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/28/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/03/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/03/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/15/2016
Date Data Arrived at EDR: 09/07/2016
Date Made Active in Reports: 11/11/2016
Number of Days to Update: 65

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/03/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 91

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 10/25/2015
Date Data Arrived at EDR: 01/29/2016
Date Made Active in Reports: 04/05/2016
Number of Days to Update: 67

Source: Department of Defense
Telephone: 571-373-0407
Last EDR Contact: 01/20/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 64

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/28/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/27/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 79

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 09/23/2016
Date Made Active in Reports: 10/24/2016
Number of Days to Update: 31

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/23/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 12/06/2016
Date Data Arrived at EDR: 12/09/2016
Date Made Active in Reports: 01/18/2017
Number of Days to Update: 40

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/25/2016
Date Data Arrived at EDR: 04/29/2016
Date Made Active in Reports: 06/21/2016
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 01/20/2017
Number of Days to Update: 63

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/13/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 64

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 62

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 62

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 64

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/11/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/12/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/13/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 86

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/15/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 107

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/15/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/06/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/03/2017
Number of Days to Update: 87

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/07/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 78

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 12/26/2016
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/16/2016
Date Data Arrived at EDR: 12/22/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 70

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/16/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 09/14/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 30

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/13/2017
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/17/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/09/2016
Date Data Arrived at EDR: 06/13/2016
Date Made Active in Reports: 09/02/2016
Number of Days to Update: 81

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/13/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 12/11/2016
Date Data Arrived at EDR: 12/20/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 59

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 12/20/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/21/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 73

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/22/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Quarterly

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/14/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 35

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/06/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/10/2016
Date Data Arrived at EDR: 10/12/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 90

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 11/10/2016
Date Data Arrived at EDR: 12/13/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 9

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 10/21/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 11/18/2016
Number of Days to Update: 23

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/27/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 11/17/2016
Date Data Arrived at EDR: 11/22/2016
Date Made Active in Reports: 01/26/2017
Number of Days to Update: 65

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 11/01/2016
Date Data Arrived at EDR: 11/03/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 19

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/22/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 55

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/03/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/10/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 51

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 01/23/2017
Date Data Arrived at EDR: 01/25/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 36

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing

Kern County Sites and Tanks Listing.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 63

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/14/2016
Date Data Arrived at EDR: 12/16/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 6

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/18/2017
Date Data Arrived at EDR: 01/20/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 41

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 66

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/17/2016
Date Data Arrived at EDR: 10/18/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 58

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/18/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2016
Date Data Arrived at EDR: 01/26/2016
Date Made Active in Reports: 03/22/2016
Number of Days to Update: 56

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/29/2016
Date Data Arrived at EDR: 04/06/2016
Date Made Active in Reports: 06/13/2016
Number of Days to Update: 68
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/04/2016
Date Data Arrived at EDR: 10/11/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 93
Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 12/05/2016
Date Data Arrived at EDR: 12/09/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 41
Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 10/19/2016
Date Data Arrived at EDR: 10/25/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 79
Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/17/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 42

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/05/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 17

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/24/2016
Date Data Arrived at EDR: 06/27/2016
Date Made Active in Reports: 08/09/2016
Number of Days to Update: 43

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 44

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/03/2016
Date Data Arrived at EDR: 11/11/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 11/04/2016
Date Data Arrived at EDR: 11/11/2016
Date Made Active in Reports: 01/23/2017
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/03/2016
Date Data Arrived at EDR: 11/08/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 65

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/07/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/02/2016
Date Data Arrived at EDR: 09/06/2016
Date Made Active in Reports: 10/14/2016
Number of Days to Update: 38

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/19/2017
Date Data Arrived at EDR: 01/25/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 36

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/19/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/20/2016
Date Data Arrived at EDR: 10/25/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 77
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/19/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 56
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/08/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 56
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 12/09/2016
Date Data Arrived at EDR: 12/13/2016
Date Made Active in Reports: 03/03/2017
Number of Days to Update: 80
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database
The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 10/05/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 86
Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/10/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/03/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 52
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/21/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/14/2017
Number of Days to Update: 49
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/15/2016
Next Scheduled EDR Contact: 04/03/2017
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/17/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 06/02/2016
Date Data Arrived at EDR: 06/07/2016
Date Made Active in Reports: 06/22/2016
Number of Days to Update: 15
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/12/2016
Date Data Arrived at EDR: 12/16/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 76
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/24/2017
Next Scheduled EDR Contact: 06/12/2017
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 11/10/2016
Date Made Active in Reports: 01/24/2017
Number of Days to Update: 75
Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/06/2017
Next Scheduled EDR Contact: 05/22/2017
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 11/16/2016
Date Data Arrived at EDR: 11/21/2016
Date Made Active in Reports: 01/19/2017
Number of Days to Update: 59
Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 12/13/2016
Date Data Arrived at EDR: 12/16/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 76
Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/21/2016
Date Made Active in Reports: 12/22/2016
Number of Days to Update: 1
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 11/29/2016
Date Data Arrived at EDR: 12/22/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 19
Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/09/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 12/22/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 65

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/04/2017
Date Data Arrived at EDR: 01/06/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 55

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/22/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 12/02/2016
Date Data Arrived at EDR: 12/06/2016
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 35

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 03/06/2017
Next Scheduled EDR Contact: 06/19/2017
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/25/2017
Date Data Arrived at EDR: 01/27/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 34

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 01/17/2017
Number of Days to Update: 82

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/30/2016
Next Scheduled EDR Contact: 04/10/2017
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/13/2017
Next Scheduled EDR Contact: 05/29/2017
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/26/2016
Date Data Arrived at EDR: 10/27/2016
Date Made Active in Reports: 01/24/2017
Number of Days to Update: 89
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 01/23/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/28/2016
Date Data Arrived at EDR: 12/14/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 29
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/14/2016
Next Scheduled EDR Contact: 03/27/2017
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 11/14/2016
Date Data Arrived at EDR: 11/18/2016
Date Made Active in Reports: 01/12/2017
Number of Days to Update: 55
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 01/03/2017
Next Scheduled EDR Contact: 04/17/2017
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 10/28/2016
Date Data Arrived at EDR: 11/03/2016
Date Made Active in Reports: 12/15/2016
Number of Days to Update: 42
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 01/30/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/11/2016
Next Scheduled EDR Contact: 02/27/2017
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 09/29/2016
Date Made Active in Reports: 01/03/2017
Number of Days to Update: 96

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/09/2017
Next Scheduled EDR Contact: 04/24/2017
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/30/2017
Date Data Arrived at EDR: 02/01/2017
Date Made Active in Reports: 02/13/2017
Number of Days to Update: 12

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 02/01/2017
Next Scheduled EDR Contact: 05/08/2017
Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 07/22/2016
Date Made Active in Reports: 11/22/2016
Number of Days to Update: 123

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/12/2017
Next Scheduled EDR Contact: 05/01/2017
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/21/2017
Next Scheduled EDR Contact: 06/05/2017
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 04/14/2016
Date Made Active in Reports: 06/03/2016
Number of Days to Update: 50

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/13/2017
Next Scheduled EDR Contact: 06/26/2017
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

AMCP - SOUTHERN PARCEL
1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

TARGET PROPERTY COORDINATES

Latitude (North):	34.024817 - 34° 1' 29.34''
Longitude (West):	117.382248 - 117° 22' 56.09''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	464709.6
UTM Y (Meters):	3764779.0
Elevation:	911 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5619058 FONTANA, CA
Version Date:	2012
Northeast Map:	5620416 SAN BERNARDINO SOUTH, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

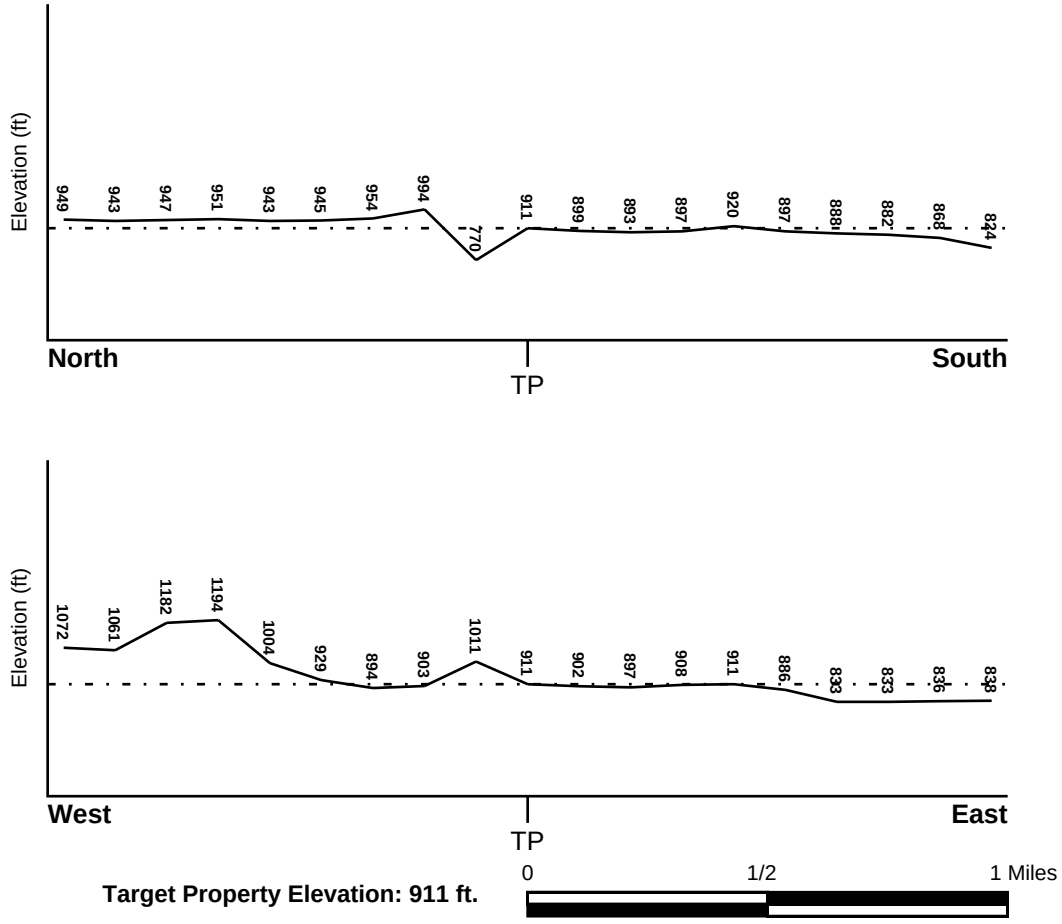
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06065C0045G	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06065C0065G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
FONTANA	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Location Relative to TP:	1/4 - 1/2 Mile WNW
Site Name:	Riverside Cement Co Crestmore Plt
Site EPA ID Number:	CAD063844443
Groundwater Flow Direction:	SW ON A REGIONAL BASIS.
Measured Depth to Water:	not available, but a well 2,000 feet east of the site had a water level of 800 feet above mean sea level.
Hydraulic Connection:	Information is not available about the hydraulic connection between aquifer(s) underlying the site.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information is inferred in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW

* ©1996 Site--specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
2	1/4 - 1/2 Mile WNW	Varies

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

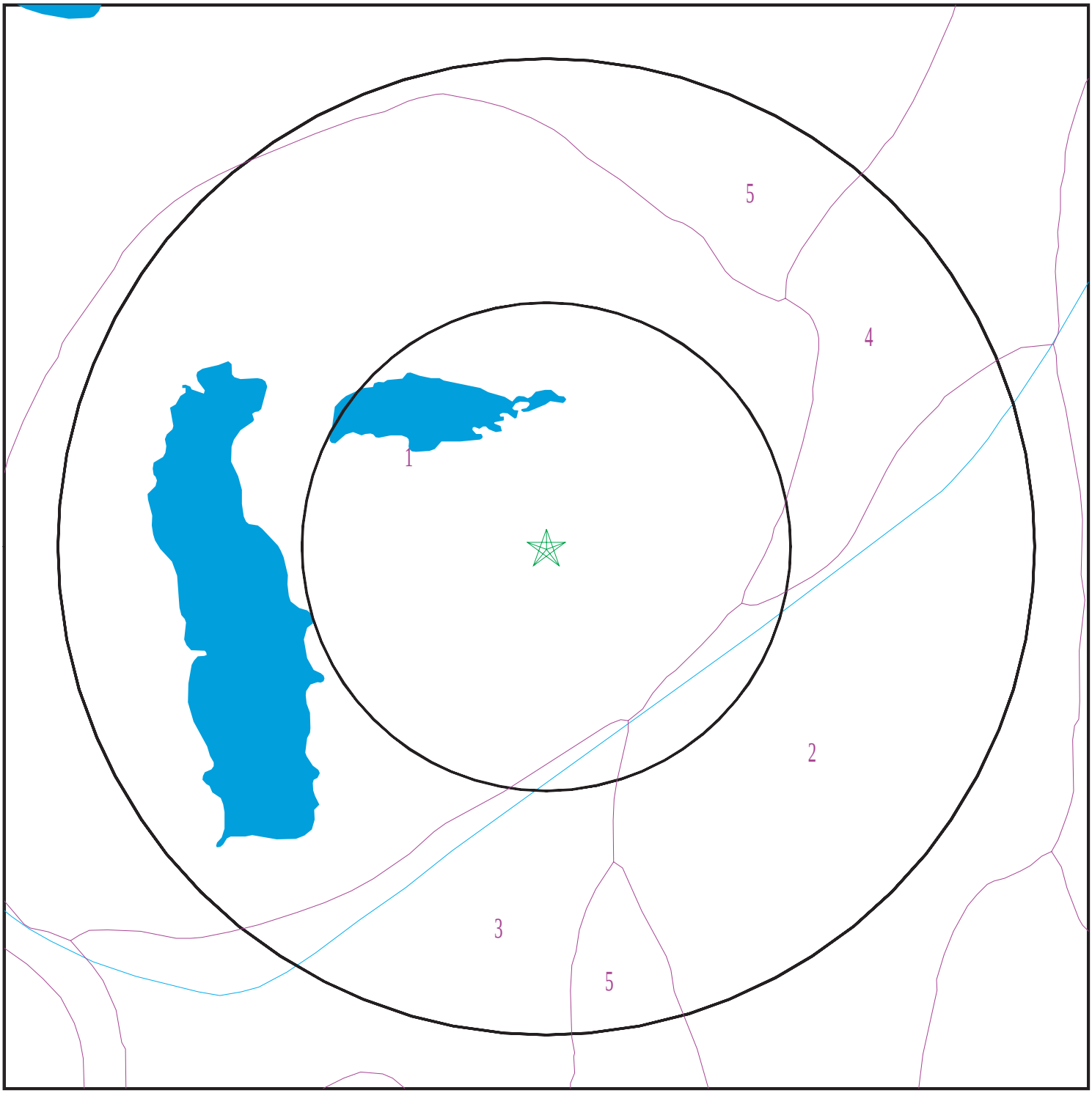
Era:	Paleozoic
System:	Pennsylvanian
Series:	Upper Paleozoic
Code:	uPze *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Eugeosynclinal Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 4878973.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	AMCP - Southern Parcel	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Drew Lassen
LAT/LONG:	34.024817 / 117.382248	INQUIRY #:	4878973.2s
		DATE:	March 14, 2017 3:08 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: QUARRIES

Soil Surface Texture:
Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 2

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 5.6
2	14 inches	22 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	22 inches	68 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

Soil Map ID: 3

Soil Component Name: GREENFIELD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
2	25 inches	42 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
3	42 inches	59 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
4	59 inches	72 inches	stratified loamy sand to sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6

Soil Map ID: 4

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 5.6
2	14 inches	22 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	22 inches	68 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

Soil Map ID: 5

Soil Component Name: DELHI

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
2	9 inches	48 inches	sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
3	48 inches	59 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000139843	1/4 - 1/2 Mile SE
D11	USGS40000139838	1/2 - 1 Mile ESE
D12	USGS40000139841	1/2 - 1 Mile ESE
D13	USGS40000139840	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

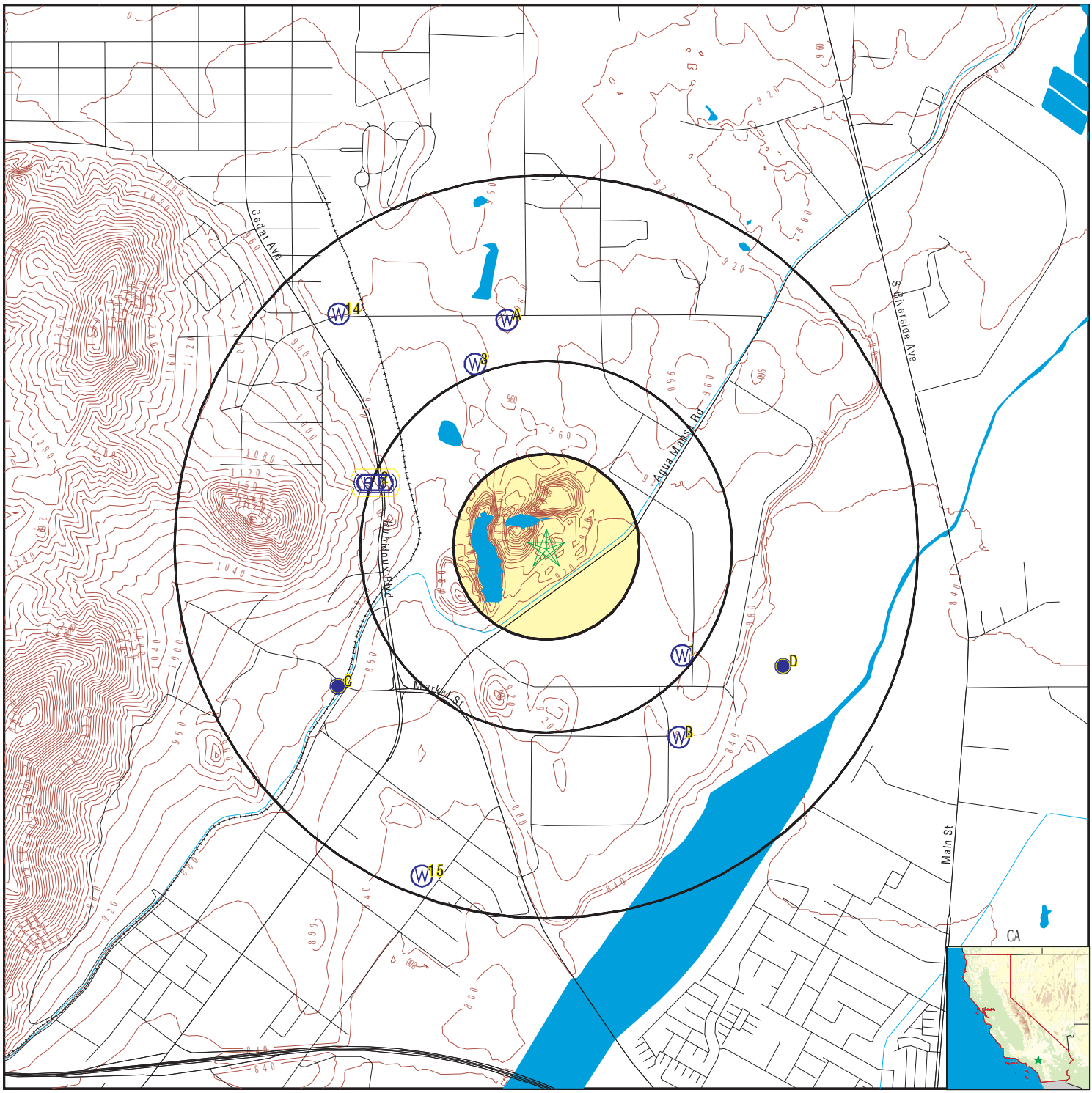
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
3	2492	1/2 - 1 Mile NNW
A4	18724	1/2 - 1 Mile North
B5	2504	1/2 - 1 Mile SE
B6	2503	1/2 - 1 Mile SSE
A7	CADW60000003294	1/2 - 1 Mile North
D9	2487	1/2 - 1 Mile ESE
C10	2499	1/2 - 1 Mile WSW
14	2493	1/2 - 1 Mile NW
15	2500	1/2 - 1 Mile SSW

PHYSICAL SETTING SOURCE MAP - 4878973.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	AMCP - Southern Parcel	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Drew Lassen
LAT/LONG:	34.024817 / 117.382248	INQUIRY #:	4878973.2s
		DATE:	March 14, 2017 3:08 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
SE
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000139843**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340114117223001		
Monloc name:	002S005W02P001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0205696
Longitude:	-117.3758787	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	100
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

2
WNW
1/4 - 1/2 Mile
Higher

Site ID:	083301366T
Groundwater Flow:	Varies
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	80
Date:	07/07/1995

AQUIFLOW **50768**

3
NNW
1/2 - 1 Mile
Higher

CA WELLS **2492**

Water System Information:

Prime Station Code:	02S/05W-03B01 S	User ID:	33C
FRDS Number:	3301551001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340155.0 1172305.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01 DOMESTIC - MAIN		
System Number:	3301551		
System Name:	RIVERSIDE CEMENT CO		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

Sample Collected:	16-SEP-09	Findings:	4.98 PCI/L
Chemical:	GROSS ALPHA		

A4
North
1/2 - 1 Mile
Higher

CA WELLS **18724**

Water System Information:

Prime Station Code:	3610004-031	User ID:	TAN
FRDS Number:	3610004031	County:	San Beernardino
District Number:	13	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340200.0 1172300.0	Precision:	Undefined
Source Name:	WELL 41		
System Number:	3610004		
System Name:	WEST SAN BERNARDINO CWD		
Organization That Operates System:			
	PO BOX 920		
	RIALTO, CA 92376-0920		
Pop Served:	41454	Connections:	15052
Area Served:	RIALTO-BLOOMINGTON		
Sample Collected:	26-JAN-11	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	23-FEB-11	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	23-MAR-11	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-MAR-11	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	20-APR-11	Findings:	0.7 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-MAY-11	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-JUN-11	Findings:	20. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	29-JUN-11	Findings:	380. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	29-JUN-11	Findings:	8.
Chemical:	PH, LABORATORY		
Sample Collected:	29-JUN-11	Findings:	150. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	29-JUN-11	Findings:	180. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	29-JUN-11	Findings:	160. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	29-JUN-11	Findings:	52. MG/L
Chemical:	CALCIUM		

Sample Collected:	29-JUN-11	Findings:	8.8 MG/L
Chemical:	MAGNESIUM		
Sample Collected:	29-JUN-11	Findings:	14. MG/L
Chemical:	SODIUM		
Sample Collected:	29-JUN-11	Findings:	1.6 MG/L
Chemical:	POTASSIUM		
Sample Collected:	29-JUN-11	Findings:	8.6 MG/L
Chemical:	CHLORIDE		
Sample Collected:	29-JUN-11	Findings:	23. MG/L
Chemical:	SULFATE		
Sample Collected:	29-JUN-11	Findings:	0.35 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	29-JUN-11	Findings:	8.1 UG/L
Chemical:	VANADIUM		
Sample Collected:	29-JUN-11	Findings:	260. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	29-JUN-11	Findings:	1.1
Chemical:	LANGELIER INDEX @ 60 C		
Sample Collected:	29-JUN-11	Findings:	0.49
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	29-JUN-11	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	29-JUN-11	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	29-JUN-11	Findings:	3300. MG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	28-JUL-11	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-AUG-11	Findings:	2.6 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	21-SEP-11	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-SEP-11	Findings:	4.8 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	31-OCT-11	Findings:	0.7 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-NOV-11	Findings:	1.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	15-DEC-11	Findings:	5. UNITS
Chemical:	COLOR		
Sample Collected:	15-DEC-11	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	15-DEC-11	Findings:	1.9 NTU
Chemical:	TURBIDITY, LABORATORY		

Sample Collected:	26-JAN-12	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-MAR-12	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-MAR-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	10-APR-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	23-MAY-12	Findings:	1.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-JUN-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-JUN-12	Findings:	14. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-JUL-12	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-SEP-12	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	26-SEP-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	30-OCT-12	Findings:	0.6 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	28-NOV-12	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	13-DEC-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	13-DEC-12	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	22-FEB-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	21-MAR-13	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-MAR-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-APR-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	05-JUN-13	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	31-JUL-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	15-AUG-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	23-SEP-13	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	23-SEP-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-OCT-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-NOV-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	13-DEC-13	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	13-DEC-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	15-JAN-14	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-FEB-14	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	20-MAR-14	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-MAR-14	Findings:	1. NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-APR-14	Findings:	280. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	24-APR-14	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-APR-14	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	21-MAY-14	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-MAY-14	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04-JUN-14	Findings:	20. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	04-JUN-14	Findings:	410. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	04-JUN-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	04-JUN-14	Findings:	160. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	04-JUN-14	Findings:	190. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	04-JUN-14	Findings:	170. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	04-JUN-14	Findings:	51. MG/L
Chemical:	CALCIUM		
Sample Collected:	04-JUN-14	Findings:	11. MG/L
Chemical:	MAGNESIUM		

Sample Collected:	04-JUN-14	Findings:	15. MG/L
Chemical:	SODIUM		
Sample Collected:	04-JUN-14	Findings:	1.8 MG/L
Chemical:	POTASSIUM		
Sample Collected:	04-JUN-14	Findings:	11. MG/L
Chemical:	CHLORIDE		
Sample Collected:	04-JUN-14	Findings:	28. MG/L
Chemical:	SULFATE		
Sample Collected:	04-JUN-14	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	04-JUN-14	Findings:	2.1 UG/L
Chemical:	ARSENIC		
Sample Collected:	04-JUN-14	Findings:	6.2 UG/L
Chemical:	VANADIUM		
Sample Collected:	04-JUN-14	Findings:	250. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	04-JUN-14	Findings:	0.84
Chemical:	LANGELIER INDEX @ 60 C		
Sample Collected:	04-JUN-14	Findings:	0.23
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	04-JUN-14	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-JUN-14	Findings:	12.04
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	04-JUN-14	Findings:	3700. MG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	17-JUL-14	Findings:	270. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	17-JUL-14	Findings:	19. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	17-JUL-14	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	08-AUG-14	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-AUG-14	Findings:	0.8 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	25-SEP-14	Findings:	2.7 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	25-SEP-14	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-DEC-14	Findings:	3.1 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	08-DEC-14	Findings:	19. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	08-DEC-14	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-JAN-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	29-JAN-15	Findings:	0.6 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-FEB-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-FEB-15	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	17-MAR-15	Findings:	2.6 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	17-MAR-15	Findings:	1.5 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	17-MAR-15	Findings:	1.4 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	17-MAR-15	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	17-MAR-15	Findings:	0.61 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	17-MAR-15	Findings:	1.4 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	17-MAR-15	Findings:	0.88 PCI/L
Chemical:	URANIUM MDA95		
Sample Collected:	17-MAR-15	Findings:	0.643 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	17-MAR-15	Findings:	0.2 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	17-MAR-15	Findings:	9.2e-002 PCI/L
Chemical:	RA-226 OR TOTAL RA BY 903.0 C.E.		
Sample Collected:	17-MAR-15	Findings:	0.47 PCI/L
Chemical:	RADIUM, TOTAL, MDA95-NTNC ONLY, BY 903.0		
Sample Collected:	22-APR-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	22-APR-15	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	20-MAY-15	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-MAY-15	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	22-JUN-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	22-JUN-15	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		

Sample Collected:	22-JUL-15	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-AUG-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-AUG-15	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	16-SEP-15	Findings:	2.6 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	16-SEP-15	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-OCT-15	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-NOV-15	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-NOV-15	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-JAN-16	Findings:	3.7 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	06-JAN-16	Findings:	2.7 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	03-FEB-16	Findings:	3.8 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	28-MAR-16	Findings:	4.6 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	28-MAR-16	Findings:	1.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	12-APR-16	Findings:	4.2 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-APR-16	Findings:	3. UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	12-APR-16	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	03-MAY-16	Findings:	3.9 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	22-JUN-16	Findings:	250. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	22-JUN-16	Findings:	4.1 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	20-JUL-16	Findings:	3.9 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	20-JUL-16	Findings:	3. UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	20-JUL-16	Findings:	250. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		

Sample Collected:	02-AUG-16	Findings:	4.3 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	02-AUG-16	Findings:	260. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06-SEP-16	Findings:	4.3 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	06-SEP-16	Findings:	270. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06-SEP-16	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		

B5
SE **CA WELLS** **2504**
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	02S/05W-11C03 S	User ID:	WAT
FRDS Number:	3310044006	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340103.0 1172230.0	Precision:	100 Feet (one Second)
Source Name:	WELL 06 - NEW SKOTTY		
System Number:	3310044		
System Name:	Rubidoux Community SD		
Organization That Operates System:			
	P.O. Box 3098		
	Rubidoux, CA 92519		
Pop Served:	25000	Connections:	6554
Area Served:	RUBIDOUX		
Sample Collected:	03-AUG-11	Findings:	440. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03-AUG-11	Findings:	0.4
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	03-AUG-11	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-AUG-11	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	03-AUG-11	Findings:	8.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	06-SEP-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	06-SEP-11	Findings:	60. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-SEP-11	Findings:	6.3 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-OCT-11	Findings:	7.7
Chemical:	PH, LABORATORY		

Sample Collected:	11-OCT-11	Findings:	60. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11-OCT-11	Findings:	7.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-DEC-11	Findings:	4.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-DEC-11	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	12-DEC-11	Findings:	60. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	16-MAY-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	16-MAY-12	Findings:	59. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	16-MAY-12	Findings:	8.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	07-JUN-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	07-JUN-12	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-JUN-12	Findings:	6.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	13-JUN-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	13-JUN-12	Findings:	61. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	13-JUN-12	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-JUL-12	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	11-JUL-12	Findings:	59. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11-JUL-12	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	07-AUG-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	07-AUG-12	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-AUG-12	Findings:	5.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	21-AUG-12	Findings:	720. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	21-AUG-12	Findings:	7.6
Chemical:	PH, LABORATORY		

Sample Collected:	21-AUG-12	Findings:	210. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	21-AUG-12	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	21-AUG-12	Findings:	290. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	21-AUG-12	Findings:	90. MG/L
Chemical:	CALCIUM		
Sample Collected:	21-AUG-12	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	21-AUG-12	Findings:	32. MG/L
Chemical:	SODIUM		
Sample Collected:	21-AUG-12	Findings:	3.2 MG/L
Chemical:	POTASSIUM		
Sample Collected:	21-AUG-12	Findings:	25. MG/L
Chemical:	CHLORIDE		
Sample Collected:	21-AUG-12	Findings:	78. MG/L
Chemical:	SULFATE		
Sample Collected:	21-AUG-12	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	21-AUG-12	Findings:	460. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	21-AUG-12	Findings:	0.5
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	21-AUG-12	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-AUG-12	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	21-AUG-12	Findings:	7.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	24-SEP-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	24-SEP-12	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-SEP-12	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-DEC-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	11-DEC-12	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11-DEC-12	Findings:	6.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	23-MAY-13	Findings:	7.7
Chemical:	PH, LABORATORY		

Sample Collected:	23-MAY-13	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-MAY-13	Findings:	6. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	21-JUN-13	Findings:	7.8
Chemical:	PH, LABORATORY		
Sample Collected:	21-JUN-13	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-JUN-13	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	17-JUL-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	17-JUL-13	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	17-JUL-13	Findings:	5.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	06-AUG-13	Findings:	740. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06-AUG-13	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	06-AUG-13	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	06-AUG-13	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06-AUG-13	Findings:	310. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	06-AUG-13	Findings:	97. MG/L
Chemical:	CALCIUM		
Sample Collected:	06-AUG-13	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06-AUG-13	Findings:	34. MG/L
Chemical:	SODIUM		
Sample Collected:	06-AUG-13	Findings:	3.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06-AUG-13	Findings:	29. MG/L
Chemical:	CHLORIDE		
Sample Collected:	06-AUG-13	Findings:	91. MG/L
Chemical:	SULFATE		
Sample Collected:	06-AUG-13	Findings:	0.4 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06-AUG-13	Findings:	510. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06-AUG-13	Findings:	0.4
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		

Sample Collected:	06-AUG-13	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-AUG-13	Findings:	12.2
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	06-AUG-13	Findings:	6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	13-MAY-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	13-MAY-14	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	15-MAY-14	Findings:	7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	18-JUN-14	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	18-JUN-14	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-JUN-14	Findings:	6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-JUL-14	Findings:	7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-AUG-14	Findings:	720. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	05-AUG-14	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	05-AUG-14	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	05-AUG-14	Findings:	240. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	05-AUG-14	Findings:	310. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	05-AUG-14	Findings:	95. MG/L
Chemical:	CALCIUM		
Sample Collected:	05-AUG-14	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	05-AUG-14	Findings:	32. MG/L
Chemical:	SODIUM		
Sample Collected:	05-AUG-14	Findings:	3. MG/L
Chemical:	POTASSIUM		
Sample Collected:	05-AUG-14	Findings:	25. MG/L
Chemical:	CHLORIDE		
Sample Collected:	05-AUG-14	Findings:	86. MG/L
Chemical:	SULFATE		
Sample Collected:	05-AUG-14	Findings:	0.2 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		

Sample Collected:	05-AUG-14	Findings:	4.7 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	05-AUG-14	Findings:	470. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	05-AUG-14	Findings:	0.2
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	05-AUG-14	Findings:	49. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-AUG-14	Findings:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	05-AUG-14	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-SEP-14	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	12-SEP-14	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-SEP-14	Findings:	6.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-OCT-14	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-OCT-14	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-14	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	09-OCT-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	09-OCT-14	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09-OCT-14	Findings:	6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	29-DEC-14	Findings:	7.9
Chemical:	PH, LABORATORY		
Sample Collected:	29-DEC-14	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-JAN-15	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	06-JAN-15	Findings:	53. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-JAN-15	Findings:	6.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-FEB-15	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	02-FEB-15	Findings:	53. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	02-FEB-15	Findings:	7. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-MAR-15	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	05-MAR-15	Findings:	52. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-MAR-15	Findings:	6.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	24-MAR-15	Findings:	5.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-APR-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	01-APR-15	Findings:	48. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-APR-15	Findings:	4.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	23-JUN-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	23-JUN-15	Findings:	50. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-JUN-15	Findings:	5. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	08-JUL-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	08-JUL-15	Findings:	49. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-JUL-15	Findings:	6.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	19-AUG-15	Findings:	25. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	19-AUG-15	Findings:	760. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	19-AUG-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	19-AUG-15	Findings:	210. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	19-AUG-15	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	19-AUG-15	Findings:	310. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	19-AUG-15	Findings:	96. MG/L
Chemical:	CALCIUM		
Sample Collected:	19-AUG-15	Findings:	16. MG/L
Chemical:	MAGNESIUM		

Sample Collected:	19-AUG-15	Findings:	33. MG/L
Chemical:	SODIUM		
Sample Collected:	19-AUG-15	Findings:	3.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	19-AUG-15	Findings:	25. MG/L
Chemical:	CHLORIDE		
Sample Collected:	19-AUG-15	Findings:	78. MG/L
Chemical:	SULFATE		
Sample Collected:	19-AUG-15	Findings:	0.2 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	19-AUG-15	Findings:	490. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	19-AUG-15	Findings:	0.52
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	19-AUG-15	Findings:	48. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	19-AUG-15	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	19-AUG-15	Findings:	5. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	23-DEC-15	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	23-DEC-15	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-JAN-16	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	12-JAN-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-JAN-16	Findings:	5.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	18-MAR-16	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	18-MAR-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	18-MAR-16	Findings:	5.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-APR-16	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	05-APR-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	05-APR-16	Findings:	5.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	10-MAY-16	Findings:	7.3
Chemical:	PH, LABORATORY		

Sample Collected:	10-MAY-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	10-MAY-16	Findings:	5.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-JUN-16	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUN-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-JUN-16	Findings:	5. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	22-JUN-16	Findings:	4.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-JUL-16	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	12-JUL-16	Findings:	10. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-JUL-16	Findings:	4.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-AUG-16	Findings:	8.4
Chemical:	PH, LABORATORY		
Sample Collected:	02-AUG-16	Findings:	9.9 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	09-AUG-16	Findings:	800. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09-AUG-16	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	09-AUG-16	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	09-AUG-16	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09-AUG-16	Findings:	9.8 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	09-AUG-16	Findings:	310. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	09-AUG-16	Findings:	97. MG/L
Chemical:	CALCIUM		
Sample Collected:	09-AUG-16	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09-AUG-16	Findings:	35. MG/L
Chemical:	SODIUM		
Sample Collected:	09-AUG-16	Findings:	3.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09-AUG-16	Findings:	39. MG/L
Chemical:	CHLORIDE		

Sample Collected:	09-AUG-16	Findings:	87. MG/L
Chemical:	SULFATE		
Sample Collected:	09-AUG-16	Findings:	0.2 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09-AUG-16	Findings:	500. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09-AUG-16	Findings:	0.5
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	09-AUG-16	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	09-AUG-16	Findings:	4.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	16-AUG-16	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	16-AUG-16	Findings:	9.6 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-SEP-16	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-SEP-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-SEP-16	Findings:	500. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	13-SEP-16	Findings:	6.e-003 UG/L
Chemical:	1,2,3-TRICHLOROPROPANE		
Sample Collected:	17-MAY-11	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	17-MAY-11	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-MAY-11	Findings:	9.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-JUN-11	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUN-11	Findings:	60. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-JUN-11	Findings:	0.645 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	01-JUN-11	Findings:	0.378 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	01-JUN-11	Findings:	3.19 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	01-JUN-11	Findings:	1.21 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	01-JUN-11	Findings:	4.01 PCI/L
Chemical:	URANIUM (PCI/L)		

Sample Collected:	01-JUN-11	Findings:	0.81 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	05-JUL-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	05-JUL-11	Findings:	63. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-JUL-11	Findings:	5.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-AUG-11	Findings:	720. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03-AUG-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03-AUG-11	Findings:	210. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	03-AUG-11	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	03-AUG-11	Findings:	290. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	03-AUG-11	Findings:	89. MG/L
Chemical:	CALCIUM		
Sample Collected:	03-AUG-11	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03-AUG-11	Findings:	33. MG/L
Chemical:	SODIUM		
Sample Collected:	03-AUG-11	Findings:	3.2 MG/L
Chemical:	POTASSIUM		
Sample Collected:	03-AUG-11	Findings:	19. MG/L
Chemical:	CHLORIDE		
Sample Collected:	03-AUG-11	Findings:	69. MG/L
Chemical:	SULFATE		
Sample Collected:	03-AUG-11	Findings:	0.2 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		

B6
SSE **CA WELLS** **2503**
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	02S/05W-11C02 S	User ID:	WAT
FRDS Number:	3310044004	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340102.0 1172231.0	Precision:	100 Feet (one Second)
Source Name:	WELL 04 - OLD SKOTTY		
System Number:	3310044		
System Name:	Rubidoux Community SD		
Organization That Operates System:			
	P.O. Box 3098		
	Rubidoux, CA 92519		
Pop Served:	25000	Connections:	6554
Area Served:	RUBIDOUX		

Sample Collected:	04-MAY-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	04-MAY-11	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-MAY-11	Findings:	8.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	18-MAY-11	Findings:	7.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-JUN-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUN-11	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-JUN-11	Findings:	0.473 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	01-JUN-11	Findings:	0.295 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	01-JUN-11	Findings:	4.47 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	01-JUN-11	Findings:	1.37 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	01-JUN-11	Findings:	3.62 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	01-JUN-11	Findings:	0.77 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	05-JUL-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	05-JUL-11	Findings:	59. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-JUL-11	Findings:	6.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-AUG-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-AUG-11	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-AUG-11	Findings:	7.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-AUG-11	Findings:	680. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	03-AUG-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03-AUG-11	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	03-AUG-11	Findings:	240. MG/L
Chemical:	BICARBONATE ALKALINITY		

Sample Collected:	03-AUG-11	Findings:	270. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	03-AUG-11	Findings:	85. MG/L
Chemical:	CALCIUM		
Sample Collected:	03-AUG-11	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	03-AUG-11	Findings:	30. MG/L
Chemical:	SODIUM		
Sample Collected:	03-AUG-11	Findings:	3. MG/L
Chemical:	POTASSIUM		
Sample Collected:	03-AUG-11	Findings:	16. MG/L
Chemical:	CHLORIDE		
Sample Collected:	03-AUG-11	Findings:	63. MG/L
Chemical:	SULFATE		
Sample Collected:	03-AUG-11	Findings:	0.2 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	03-AUG-11	Findings:	380. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	03-AUG-11	Findings:	0.36
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	03-AUG-11	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-AUG-11	Findings:	12.2
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	03-AUG-11	Findings:	7.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-SEP-11	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	01-SEP-11	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-SEP-11	Findings:	7.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	06-SEP-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	06-SEP-11	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-SEP-11	Findings:	6.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-OCT-11	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	11-OCT-11	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11-OCT-11	Findings:	6.3 UG/L
Chemical:	PERCHLORATE		

Sample Collected:	14-DEC-11	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	14-DEC-11	Findings:	62. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	14-DEC-11	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	04-APR-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	04-APR-12	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-MAY-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	08-MAY-12	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-JUN-12	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUN-12	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-JUN-12	Findings:	8.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-JUL-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03-JUL-12	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-JUL-12	Findings:	7.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-AUG-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-AUG-12	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-AUG-12	Findings:	8.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	21-AUG-12	Findings:	690. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	21-AUG-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	21-AUG-12	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	21-AUG-12	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	21-AUG-12	Findings:	280. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	21-AUG-12	Findings:	87. MG/L
Chemical:	CALCIUM		

Sample Collected:	21-AUG-12	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	21-AUG-12	Findings:	31. MG/L
Chemical:	SODIUM		
Sample Collected:	21-AUG-12	Findings:	2.9 MG/L
Chemical:	POTASSIUM		
Sample Collected:	21-AUG-12	Findings:	18. MG/L
Chemical:	CHLORIDE		
Sample Collected:	21-AUG-12	Findings:	72. MG/L
Chemical:	SULFATE		
Sample Collected:	21-AUG-12	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	21-AUG-12	Findings:	430. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	21-AUG-12	Findings:	0.47
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	21-AUG-12	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-AUG-12	Findings:	12.2
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	21-AUG-12	Findings:	8.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	04-SEP-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	04-SEP-12	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-SEP-12	Findings:	7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-OCT-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-OCT-12	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-12	Findings:	6. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-DEC-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	11-DEC-12	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11-DEC-12	Findings:	6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	25-APR-13	Findings:	8.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-MAY-13	Findings:	7.6
Chemical:	PH, LABORATORY		

Sample Collected:	01-MAY-13	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-MAY-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	23-MAY-13	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-MAY-13	Findings:	6.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-JUN-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	05-JUN-13	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-JUN-13	Findings:	7.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-JUL-13	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	03-JUL-13	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-JUL-13	Findings:	5. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-AUG-13	Findings:	730. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	01-AUG-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-AUG-13	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	01-AUG-13	Findings:	240. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	01-AUG-13	Findings:	300. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	01-AUG-13	Findings:	94. MG/L
Chemical:	CALCIUM		
Sample Collected:	01-AUG-13	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	01-AUG-13	Findings:	33. MG/L
Chemical:	SODIUM		
Sample Collected:	01-AUG-13	Findings:	3.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	01-AUG-13	Findings:	23. MG/L
Chemical:	CHLORIDE		
Sample Collected:	01-AUG-13	Findings:	77. MG/L
Chemical:	SULFATE		
Sample Collected:	01-AUG-13	Findings:	0.4 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		

Sample Collected:	01-AUG-13	Findings:	460. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	01-AUG-13	Findings:	0.24
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	01-AUG-13	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-AUG-13	Findings:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	01-AUG-13	Findings:	7.3 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	06-AUG-13	Findings:	7.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	20-AUG-13	Findings:	7.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	04-SEP-13	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	04-SEP-13	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-SEP-13	Findings:	7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-OCT-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-OCT-13	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-13	Findings:	8.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	14-MAY-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	14-MAY-14	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	15-MAY-14	Findings:	7.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-JUN-14	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	11-JUN-14	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-JUN-14	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	18-JUN-14	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-JUN-14	Findings:	7.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-JUL-14	Findings:	7.5
Chemical:	PH, LABORATORY		

Sample Collected:	02-JUL-14	Findings:	450. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	02-JUL-14	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-JUL-14	Findings:	8. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-AUG-14	Findings:	700. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	05-AUG-14	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	05-AUG-14	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	05-AUG-14	Findings:	240. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	05-AUG-14	Findings:	300. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	05-AUG-14	Findings:	92. MG/L
Chemical:	CALCIUM		
Sample Collected:	05-AUG-14	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	05-AUG-14	Findings:	31. MG/L
Chemical:	SODIUM		
Sample Collected:	05-AUG-14	Findings:	3. MG/L
Chemical:	POTASSIUM		
Sample Collected:	05-AUG-14	Findings:	23. MG/L
Chemical:	CHLORIDE		
Sample Collected:	05-AUG-14	Findings:	81. MG/L
Chemical:	SULFATE		
Sample Collected:	05-AUG-14	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	05-AUG-14	Findings:	4. UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	05-AUG-14	Findings:	500. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	05-AUG-14	Findings:	0.48
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	05-AUG-14	Findings:	50. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-AUG-14	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	05-AUG-14	Findings:	6.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-SEP-14	Findings:	7.8
Chemical:	PH, LABORATORY		

Sample Collected:	12-SEP-14	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-SEP-14	Findings:	6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	09-OCT-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	09-OCT-14	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09-OCT-14	Findings:	7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	29-DEC-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	29-DEC-14	Findings:	59. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-JAN-15	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	07-JAN-15	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-JAN-15	Findings:	8.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-FEB-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	02-FEB-15	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02-FEB-15	Findings:	4.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-MAR-15	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	02-MAR-15	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02-MAR-15	Findings:	6.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	24-MAR-15	Findings:	5. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-APR-15	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-APR-15	Findings:	53. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-APR-15	Findings:	6. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-MAY-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	01-MAY-15	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	01-MAY-15	Findings:	5.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-JUN-15	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03-JUN-15	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-JUN-15	Findings:	6.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-JUL-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUL-15	Findings:	50. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-JUL-15	Findings:	4.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-AUG-15	Findings:	7.2
Chemical:	PH, LABORATORY		
Sample Collected:	05-AUG-15	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-AUG-15	Findings:	4.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	19-AUG-15	Findings:	25. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	19-AUG-15	Findings:	730. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	19-AUG-15	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	19-AUG-15	Findings:	210. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	19-AUG-15	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	19-AUG-15	Findings:	300. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	19-AUG-15	Findings:	230. MG/L
Chemical:	CALCIUM		
Sample Collected:	19-AUG-15	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	19-AUG-15	Findings:	31. MG/L
Chemical:	SODIUM		
Sample Collected:	19-AUG-15	Findings:	2.9 MG/L
Chemical:	POTASSIUM		
Sample Collected:	19-AUG-15	Findings:	32. MG/L
Chemical:	CHLORIDE		
Sample Collected:	19-AUG-15	Findings:	87. MG/L
Chemical:	SULFATE		

Sample Collected:	19-AUG-15	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	19-AUG-15	Findings:	460. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	19-AUG-15	Findings:	0.41
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	19-AUG-15	Findings:	50. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	19-AUG-15	Findings:	12.2
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	19-AUG-15	Findings:	5.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-SEP-15	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-SEP-15	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-SEP-15	Findings:	5.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-OCT-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	01-OCT-15	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-15	Findings:	5.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	23-DEC-15	Findings:	7.3
Chemical:	PH, LABORATORY		
Sample Collected:	23-DEC-15	Findings:	13. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-JAN-16	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	12-JAN-16	Findings:	13. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-JAN-16	Findings:	6.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-MAR-16	Findings:	7.3
Chemical:	PH, LABORATORY		
Sample Collected:	02-MAR-16	Findings:	15. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	02-MAR-16	Findings:	5.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-APR-16	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	05-APR-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		

Sample Collected:	05-APR-16	Findings:	5.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	04-MAY-16	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	04-MAY-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	04-MAY-16	Findings:	4.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-JUN-16	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUN-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-JUN-16	Findings:	7.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	08-JUN-16	Findings:	6. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	15-JUN-16	Findings:	6.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	22-JUN-16	Findings:	5.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	06-JUL-16	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	06-JUL-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	06-JUL-16	Findings:	5.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-JUL-16	Findings:	5.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-AUG-16	Findings:	8.5
Chemical:	PH, LABORATORY		
Sample Collected:	02-AUG-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	02-AUG-16	Findings:	5.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	09-AUG-16	Findings:	740. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09-AUG-16	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	09-AUG-16	Findings:	210. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	09-AUG-16	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09-AUG-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		

Sample Collected:	09-AUG-16	Findings:	290. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	09-AUG-16	Findings:	91. MG/L
Chemical:	CALCIUM		
Sample Collected:	09-AUG-16	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09-AUG-16	Findings:	31. MG/L
Chemical:	SODIUM		
Sample Collected:	09-AUG-16	Findings:	2.9 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09-AUG-16	Findings:	24. MG/L
Chemical:	CHLORIDE		
Sample Collected:	09-AUG-16	Findings:	75. MG/L
Chemical:	SULFATE		
Sample Collected:	09-AUG-16	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09-AUG-16	Findings:	470. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09-AUG-16	Findings:	0.5
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	09-AUG-16	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	09-AUG-16	Findings:	6.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	16-AUG-16	Findings:	7.8
Chemical:	PH, LABORATORY		
Sample Collected:	16-AUG-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-SEP-16	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-SEP-16	Findings:	13. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-SEP-16	Findings:	460. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	01-SEP-16	Findings:	6.3 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	13-SEP-16	Findings:	3.e-002 UG/L
Chemical:	1,2,3-TRICHLOROPROPANE		

A7
North
1/2 - 1 Mile
Higher

CA WELLS **CADW60000003294**

Objectid:	3294
Latitude:	34.034
Longitude:	-117.384
Site code:	340340N1173840W001
State well numbe:	03S03W03A001S
Local well name:	'El Rivino'
Well use id:	1
Well use descrip:	Observation
County id:	33
County name:	Riverside
Basin code:	'8-2.03'
Basin desc:	Riverside-Arlington
Dwr region id:	80238
Dwr region:	Southern Region Office
Site id:	CADW60000003294

C8
SW
1/2 - 1 Mile
Lower

AQUIFLOW **67279**

Site ID:	083300480T
Groundwater Flow:	Not Reported
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	50
Date:	09/18/1991

D9
ESE
1/2 - 1 Mile
Lower

CA WELLS **2487**

Water System Information:

Prime Station Code:	02S/05W-02Q07 S	User ID:	WAT
FRDS Number:	3310031062	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Agricultural/Irrigation Well
Source Lat/Long:	340113.6 1172215.3	Precision:	10 Feet (1/10 Second)
Source Name:	JURUPA WELL 06 - AGRICULTURAL		
System Number:	3310031		
System Name:	Riverside, City of		
Organization That Operates System:	3900 MAIN STREET RIVERSIDE, CA 92522		
Pop Served:	245000	Connections:	58586
Area Served:	RIVERSIDE		

C10
WSW
1/2 - 1 Mile
Lower

CA WELLS **2499**

Water System Information:

Prime Station Code:	02S/05W-10C01 S	User ID:	33C
FRDS Number:	3301109001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340110.0 1172329.0	Precision:	100 Feet (one Second)
Source Name:	WELL 02 INDUSTRIAL		

System Number: 3301109
System Name: CERTAINTEED PRODUCTS
Organization That Operates System:
Not Reported
Pop Served: Unknown, Small System Connections: Unknown, Small System
Area Served: Not Reported

D11
ESE **FED USGS** **USGS40000139838**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340111117221501		
Monloc name:	002S005W02Q007S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0197364
Longitude:	-117.3717119	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	482
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

D12
ESE **FED USGS** **USGS40000139841**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340113117221102		
Monloc name:	002S005W02R002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0202919
Longitude:	-117.3706007	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

D13
ESE **FED USGS** **USGS40000139840**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340113117221101		
Monloc name:	002S005W02R001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0202919
Longitude:	-117.3706007	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

14
NW **CA WELLS** **2493**
1/2 - 1 Mile
Higher

Water System Information:

Prime Station Code:	02S/05W-03B02 S	User ID:	33C
FRDS Number:	3301173001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340202.0 1172328.0	Precision:	100 Feet (one Second)
Source Name:	WELL 01		
System Number:	3301173		
System Name:	CRESTMORE HEIGHTS MWC		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database	EDR ID Number
CA WELLS	**2500**

15
SSW
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	02S/05W-10K06 S	User ID:	33C
FRDS Number:	3301740001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340043.0 1172314.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		
System Number:	3301740		
System Name:	WEST RIVERSIDE MWC		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92509	12	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 92509

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX B

USEPA and DTSC Documents

Bechtel

50 Beale Street
San Francisco, CA 94105-1895
Mailing address: P.O. Box 193965
San Francisco, CA 94119-3965

Site Inspection Prioritization

Site: Riverside Cement Co., Crestmore Plant
1500 Rubidoux Blvd.
Riverside, CA 92502

Site EPA ID Number: CAD 063844443

Work Assignment Number: 60-32-9JZZ, ARCSWEST Program

Submitted to: Dana D. Barton
Site Assessment Manager
EPA Region IX

Thru: Sandra Carroll

Date: June 22, 1994

Prepared by: Daniel L. Wong

Review and Concurrence: Catherine C. Walton

1.0 INTRODUCTION

The U.S. Environmental Protection Agency (EPA), Region IX, under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), has tasked Bechtel Environmental, Inc. (BEI) to conduct a site inspection prioritization (SIP) of the Riverside Cement Co., Crestmore Plant (Riverside Cement Co.), site in Riverside, Riverside County, Calif., using the EPA's Hazard Ranking System (HRS) criteria. The HRS assesses the relative threat associated with actual or potential releases of hazardous substances at the site. The HRS has been adopted by the EPA to help set priorities for further evaluation and eventual remedial action at hazardous waste sites. The HRS is the primary method of determining a site's eligibility for placement on the National Priorities List (NPL). The NPL identifies sites at which the EPA may conduct remedial response actions. This report summarizes the results of the SIP of the Riverside Cement Co. site.

The Riverside Cement Co. site is located at 1500 Rubidoux Blvd., in Riverside, Calif. The geographic coordinates for the site are 34° 01' 36.0" N latitude and 117° 22' 50.5" W longitude (Township 2 South, Range 5 West, Section 3, Fontana, Calif., 7.5-minute quadrangle) (1). The location of the site is shown in Figure 1-1.

The Riverside Cement Co. site was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) on August 1, 1980 (CAD 063844443) (2). A site inspection (SI) was conducted for the EPA on September 30, 1990 by Ecology and Environment, Inc. (3).

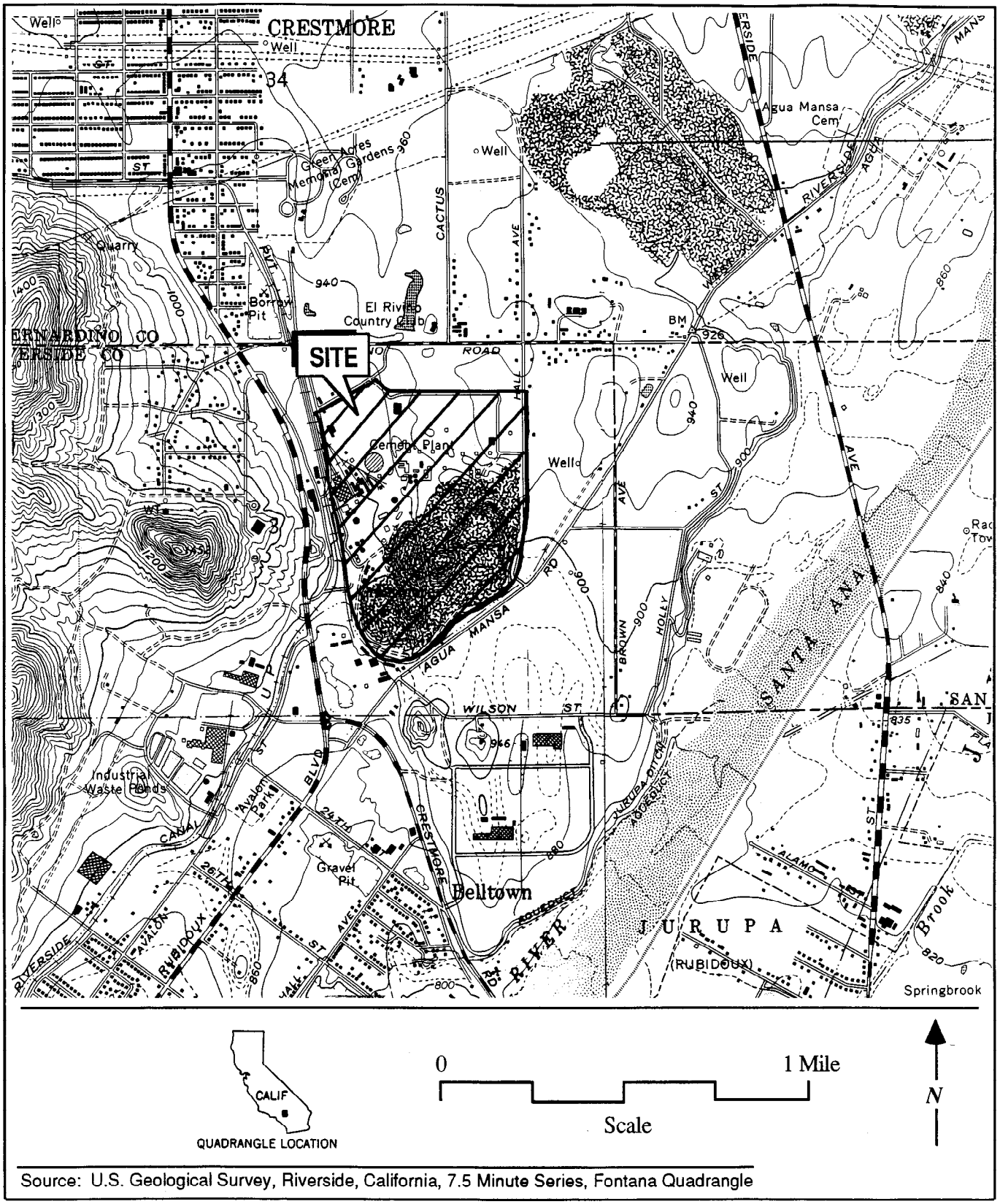
1.1 Apparent Problem

The apparent problems at the site are as follows:

- Between 1964 and 1990, approximately 250,015 tons of cement kiln dust (CKD) were disposed of on site (4). In 1990, analytical results of samples taken of the onsite CKD indicated the presence of cadmium, chromium, and lead at concentrations up to 2.9 milligrams per kilogram (mg/kg), 7.1 mg/kg, and 106 mg/kg, respectively (3,5).

- In 1990, analytical results of groundwater samples collected upgradient of the site indicated the presence of aluminum and chromium at concentrations of 26.9 micrograms per liter (µg/l) and 3.8 µg/l, respectively, and manganese at concentrations less than the analytical detection limit of 1 µg/l. During the same sampling event, analytical results of groundwater samples collected downgradient of the site indicated the presence of aluminum, chromium, and manganese at concentrations of 155 µg/l, 19.4 µg/l, and 34.4 µg/l, respectively. (3)

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Source: U.S. Geological Survey, Riverside, California, 7.5 Minute Series, Fontana Quadrangle

Figure 1-1 Site Location

2.0 SITE DESCRIPTION

The Riverside Cement Co. site is located at 1500 Rubidoux Blvd. in an industrial area of Riverside, Calif. The site is bordered to the west by Rubidoux Boulevard, to the south by the E.L. Yeager Construction Co. and agricultural land, to the east by agricultural land, and to the north by El Rivino Road. The site occupies approximately 40 acres and is enclosed by a 6-foot chain-link fence with a main entrance gate on Rubidoux Boulevard. (6)

The site contains several buildings and process structures, including a wastewater treatment plant, which currently support production of gray and white cement. Approximately two-thirds of the site is currently not used. Portions of the site where operations currently take place or have taken place in the past include the former CKD disposal areas, the gray and white cement kiln areas, the cement clinker storage area, the Wet Weather and Commercial quarries, a former boiler blowdown pond, and Crestmore Lake. Currently, 80 people work on site in three shifts, 24 hours daily, providing continuous plant operations. The company produces white and gray cement from the raw product, cement clinker, which is trucked in from off site. (6)

The inactive areas of the site are primarily in the eastern section. Past mining and process operations gradually ceased in these areas; however, many of the buildings and some large equipment still remain. Most of the former CKD disposal areas are in the central portion of the site and extend to the Wet Weather Quarry. In 1993, most of the disposal areas were capped with native soils. The gray and white cement kiln areas are located in the western portion of the site and were operating during the April 25, 1994 BEI site reconnaissance. The cement clinker storage area is located in the northern portion of the site and has cement clinker in outdoor storage piles. The boiler blowdown pond is located in the western portion of the site and was used to receive white plant discharge from 1985 to June 1990. The boiler blowdown pond is approximately 30 feet by 60 feet in area and approximately 4 feet deep. The pond is lined with plastic and covered by clay soil. (7) Crestmore Lake occupies approximately 8 acres and was formerly the Crestmore Mine. The sides of the lake slope to a depth of approximately 100 feet below ground surface. The lake was formed by past mining operations of the Crestmore Mine, which led to direct penetration of the underlying aquifer. Mining ceased in 1985 and groundwater continues to form the lake. (6)

CKD is no longer produced or disposed of on site. Waste refractory brick, also known as "basic brick," containing 10 percent hexavalent chromium, was used to line the hottest area of the rotary kilns. Over time these bricks eroded and were periodically replaced. From 1955 until 1979, approximately 48 cubic yards of basic brick were disposed of along with CKD at an unspecified onsite disposal area. From 1980 to 1987, these bricks were either recycled into the raw feed and made into cement or manifested for offsite disposal. (3) Currently, hazardous substances stored on site include a minor amount of lubricants and solvents used for maintaining equipment operation, cleaning equipment, and maintaining onsite vehicles. Riverside Cement Co. has arranged with chemical distributor companies to have new cleaning solutions trucked onto the site and to have spent solutions hauled away to be recycled. (6)

Two monitoring wells were installed on site in June 1991 but are not sampled regularly. Regular sampling of these wells may occur if plans to build an additional plant on the former CKD disposal areas commence. (4,6)

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3.0 SITE INSPECTION PRIORITIZATION CONSIDERATIONS

Groundwater sampling was conducted as part of the SI completed for the EPA in September 1990. In November 1991, ERM-West, Inc., on behalf of Riverside Cement Co., conducted a study of the geology and hydrogeology beneath the site and submitted a report to the EPA summarizing its findings. The report stated that the hydraulically upgradient well located off site at the El Rivino Country Club (Well ERCC) and the downgradient well located off site at the E.L. Yeager Construction Co. (Well YCC), which were sampled at the time of the SI, may not be hydraulically connected. Furthermore, the report suggested that the detection of aluminum, chromium, and manganese in downgradient wells during the SI in 1990 may not be attributable to the former onsite disposal areas. ERM-West, Inc. installed Well MW-1, hydraulically upgradient and north of the former main disposal area and the Wet Weather Quarry, and Well MW-3, downgradient and south of the Commercial Quarry. In June 1991, ERM-West, Inc. collected groundwater samples from onsite and offsite wells and had the samples analyzed for metals by Curtis and Tompkins, Ltd. using EPA methods 6010, 7060, 7421, and 7740. Analytical results of samples collected from groundwater wells MW-1 and MW-3 indicated the presence of manganese at concentrations of 84 µg/l and 140 µg/l, respectively. Analytical results of these samples did not indicate the presence of aluminum or chromium above the analytical detection limits of 100 µg/l and 10 µg/l, respectively. Analytical results of a sample collected from Well YCC indicated the presence of chromium and manganese at concentrations of 12 µg/l and 10 µg/l, respectively. Analytical results of a sample collected from Well ERCC did not indicate the presence of aluminum, chromium, or manganese above the analytical detection limits. (4)

The California Environmental Protection Agency, Regional Water Quality Control Board (RWQCB), Santa Ana Region (formerly known as the California Regional Water Quality Control Board), has minimal involvement with the former CKD disposal areas. Currently, the RWQCB is involved in monitoring discharge of the wastewater at the site under Cleanup and Abatement Order 78-27. The order establishes wastewater discharge requirements for the onsite wastewater treatment plant, which is used to treat process wastewater. (8,9) The California Environmental Protection Agency, Department of Toxic Substances Control, Long Beach Region (DTSC) (formerly known as the California Department of Health Services, Toxic Substances Control Division), has not had any regulatory involvement with the site since the closure and removal of a 6-million-gallon oil tank from the site prior to 1988. (3)

The California Integrated Waste Management Board and the RWQCB conducted site inspections between 1991 and 1993; however, no citations were issued. Riverside Cement Co. currently maintains several operating permits from the South Coast Air Quality Management District (SCAQMD). In November 1993, the SCAQMD issued a citation for dust emissions from the cement clinker system and another, in 1990, for failure of the dust collection system. These citations were immediately resolved. (6)

Riverside Cement Co. submitted a plan in August 1991 to the RWQCB for closure of the former onsite CKD disposal areas. The plan called for using onsite overburden soil to cover the disposal areas with at least 12 inches of soil. (7) Closure of portions of the former CKD disposal areas began shortly after submittal of the plan. In August 1992, the RWQCB toured the closed areas and deemed that the existing soil coverage of 8 inches to 24 inches would be satisfactory for vegetation propagation. Currently, Riverside Cement Co. is seeking approval from the RWQCB for closure of the former boiler blowdown pond. (5)

According to reports and representatives from local municipal water companies, recent analytical results of samples collected from local municipal water supply wells have not indicated the presence of metals at levels above the state maximum contaminant levels (10,11,12,13,14).

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As of April 15, 1994, the Riverside Cement Co. site is not listed in the Resource Conservation and Recovery Information System (RCRIS) database (15).

4.0 PERTINENT HAZARD RANKING SYSTEM FACTORS

The following pertinent Hazard Ranking System factors are associated with the site:

- A release of aluminum, chromium, and manganese from the site to the groundwater appears to be established. A release to groundwater is established when a hazardous substance is detected in a hydraulically downgradient groundwater sample at a concentration at least three times greater than the concentration detected in a hydraulically upgradient sample, and some portion of the release is attributable to the site. Analytical results of the May 1990 groundwater sampling effort indicate the presence of aluminum, chromium, and manganese downgradient of the site at concentrations of 155 µg/l, 19.4 µg/l, and 34.4 µg/l, respectively. Analytical results of groundwater samples collected upgradient of the site indicated the presence of aluminum and chromium at concentrations of 26.9 µg/l and 3.8 µg/l, respectively, and manganese at concentrations less than the analytical detection limit of 1 µg/l. (3) Analytical results of samples collected from wells ERCC and YCC in June 1991 indicate a release of chromium and manganese. Several municipal water companies operate drinking water wells within 4 miles of the site and rely solely on groundwater for their drinking water supply. (10,11,12,13,14)

- The surface water migration pathway does not appear to be of concern because the nearest surface water body to the site, the Santa Ana River, receives treated sewage effluent. There are no drinking water intakes, fisheries, or sensitive environments that may be impacted by the site within 15 miles downstream of the site. (16, 17)

- The air migration and soil exposure pathways do not appear to be of concern because most of the CKD disposal areas within the site are capped and the site is entirely fenced. Additionally, there are no residences, schools, or daycare centers on site. (5,7)

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REMEDIAL SITE ASSESSMENT DECISION - EPA REGION IX

Site Name: Riverside Cement Co., Crestmore Plant EPA ID#: CAD 063844443

Alias Site Names: _____

City: Riverside County or Parish: Riverside State: CA

Refer to Report Dated: 6/22/94 Report type: Site Inspection Prioritization

Report developed by: Bechtel Environmental, Inc.

DECISION:

| | 1. **Further Remedial Site Assessment under CERCLA (Superfund) is not required because:**

| | 1a. Site does not qualify for further remedial site assessment under CERCLA (Site Evaluation Accomplished - SEA)

| | 1b. Site may qualify for further action, but is deferred to: | | RCRA | | NRC

|X| 2. **Further Assessment Needed Under CERCLA:** 2a. (optional) Priority: | | Higher |X| Lower

2b. Activity Type: | | PA |X| ESI | | SI | | HRS evaluation

| | Other: _____

DISCUSSION/RATIONALE:

RWQCB involved w/ closure of cement kiln dust disposal areas.

Report Reviewed, Approved, and Site Decision Made by: DANA D. BARTON Signature: Dana D Barton Date: 6/27/94

EPA Form # 9100-3 Rev. 5/93

APPENDIX A

REFERENCE LIST

Site: Riverside Cement Co., Crestmore Plant

1. U.S. Geologic Survey, Fontana Quadrangle, Calif., 7.5-Minute Series (topographic), Photorevised 1980.

2. U.S. Environmental Protection Agency, Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), May 3, 1994.

3. Brown, Paul H., Ecology and Environment, Inc., CERCLA Screening Site Inspection, Riverside Cement Co., Crestmore Plant, September 30, 1990.

4. ERM-West, Inc., Technical Evaluation 9/30/90 EPA FIT Report Riverside Cement Co. Crestmore Plant, prepared for the Riverside Cement Co., November 1991.

5. Kulesza, Eugene, Riverside Cement Co., Letter to Daniel Wong, Bechtel Environmental, Inc., June 6, 1994.

6. Wong, Daniel L., Bechtel Environmental, Inc., Site Reconnaissance Interview and Observations Report, April 25, 1994.

7. ERM-West, Inc., Closure Plan - Cement Kiln Dust Disposal Area and Boiler Blowdown Pond, August 1991, p. 1-5, 2-2.

8. Adelson, Mark, California Regional Water Quality Control Board, Santa Ana Region, Telephone Conversation recorded on Contact Report by Daniel L. Wong, Bechtel Environmental, Inc., May 31, 1994.

9. Adelson, Mark, California Regional Water Quality Control Board, Santa Ana Region, Letter to Ray Sisneros, Riverside Cement Co., March 10, 1994.

10. Knox, Charlie, Fort Fremont Mutual Water Co., Telephone Conversation recorded on Contact Report by Daniel L. Wong, Bechtel Environmental, Inc., May 6, 1994.

11. Zoba, Joseph, Rubidoux Community Services District, Telephone Conversation recorded on Contact Report by Daniel L. Wong, Bechtel Environmental, Inc., May 5 and 6, 1994.

12. Rither, Ross, Crestmore Heights Mutual Water Co., Telephone Conversation recorded on Contact Report by Daniel L. Wong, Bechtel Environmental, Inc., May 10, 1994.

13. Lara, Joe S., Mutual Water Co. of Riverside, Telephone Conversation recorded on Contact Report by Daniel L. Wong, Bechtel Environmental, Inc., May 6, 1994.

14. Riverside Public Utilities, 1993 Water Quality Annual Report.

REFERENCE LIST (Cont'd)

Site: Riverside Cement Co., Crestmore Plant

15. U.S. Environmental Protection Agency, Resource Conservation and Recovery Information System, Region IX Database, April 15, 1994.

16. Makinde, Babs, Riverside Public Utilities, Telephone Conversation recorded on Contact Report by Daniel L. Wong, Bechtel Environmental, Inc., May 26, 1994.

17. California Department of Health Services, Water Quality Monitoring Database, 1991.

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APPENDIX B

CONTACT LOG

Site: Riverside Cement Co., Crestmore Plant

EPA ID: CAD 063844443

Name	Affiliation	Phone	Date	Information
Margie	California Environmental Protection Agency, Regional Water Quality Control Board (RWQCB), Santa Ana Region	(909) 782-4130	3/31/94	She will include the site file for Bechtel Environmental, Inc. (T. Johnston) review tomorrow.
Joe Cully	California Environmental Protection Agency, Department of Toxic Substances Control, Long Beach	(909) 590-5932	4/1/94	Indicated that the agency has no files for this site.
Gene Kulesza	Riverside Cement Co.	(909) 683-6458	4/4/94	Tentatively scheduled a site visit appointment for 4/20 9:00 a.m.
Gene Kulesza	Riverside Cement Co.	(909) 683-6458	4/8/94	Rescheduled the site visit appointment for 4/25 1:00 p.m.
Jana Ryan	Riverside County Environmental Health Division	(909) 358-5055	4/19/94	Indicated that the State should handle the groundwater conditions associated with the site.
Joseph Zoba	Rubidoux Community Services District, Water Dept.	(909) 684-7321	5/5/94 & 5/6/94	See Contact Report.
Joe S. Lara	Mutual Water Co. of West Riverside	(909) 682-8537	5/6/94	See Contact Report.

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CONTACT LOG (Cont'd)

Site: Riverside Cement Co., Crestmore Plant

Name	Affiliation	Phone	Date	Information
Charlie Knox	Fort Fremont Mutual Water Co.	(909) 683-6605	5/6/94	See Contact Report.
Receptionist	Riverside Planning Department	(909) 782-5371	5/6/94	I was referred to the Riverside County Planning Department at (909) 275-3200.
Dick Archaibeque	Riverside County Planning Department	(909) 275-1888	5/10/94	See Contact Report.
Dottie Pierce	San Bernardino County Planning Department	(909) 387-4280	5/10/94	See Contact Report.
Ken Sikosrki	West San Bernardino County Water District	(909) 875-1804	5/10/94	See Contact Report.
Ross Rither	Crestmore Heights Mutual Water Co.	(909) 686-6238	5/10/94	See Contact Report.
Bill Stafford	Marygold Mutual Water Co.	(909) 877-0516	5/17/94	I requested written information on groundwater usage within the company's service area.
Ray Hassel	South Coast Air Quality Management District (SCAQMD)	(909) 420-7000	5/24/94	Performed his last inspection on the site approximately 5 years ago. Indicated that Elio Torrealba of the Diamond Bar office is the lead inspector.
Dan Randall	Riverside Public Utilities	(909) 782-5427	5/25/94	Referred me to their hydrogeologist at (909) 782-5647.
Joseph Zoba	Rubidoux Community Services District, Water Dept.	(909) 684-7321	5/26/94	Referred me to Mark Messersmith of Krieger and Stewart for hydrogeologic information. His phone is (909) 684-6900.
Gene Kulesza	Riverside Cement Co.	(909) 683-6458	5/26/94	I requested additional site information be sent.
Babs Makinde	Riverside Public Utilities	(909) 782-5647	5/26/94	See Contact Report.

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CONTACT LOG (Cont'd)

Site: Riverside Cement Co., Crestmore Plant

Name	Affiliation	Phone	Date	Information
Mike Teneyck	Jurupa Community Services District	(909) 685-7434	5/27/94	The district operates no groundwater wells within 4 miles of the site, but leases one well to the E.L. Yeager Construction Co.
Elio Torrealba	SCAQMD	(909) 396-3752	5/31//94	He is the air quality inspector for the site, but indicated that I would have to contact 396-3700 for access to information on air quality issues.
Mark Adelson	RWQCB	(909) 782-4130	5/31/94	See Contact Report.
Ann Studervant	RWQCB	(909) 782-4904	6/1/94	She has become more actively involved with the site.
Jeanette Short	SCAQMD	(909) 396-2942	6/6/94	She would receive my written request for information.

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APPENDIX C

A168 0002

CONTACT REPORT

AGENCY/AFFILIATION: Rubidoux Community Services District		CODE: GW
DEPARTMENT: Water Department		
ADDRESS: 3590 Rubidoux Blvd.	CITY: Rubidoux	
COUNTY: Riverside	STATE: CA	ZIP: 92509
CONTACT(S) Joseph Zoba	TITLE Assistant General Manager	PHONE (909) 684-7321
BEI PERSON MAKING CONTACT: Daniel L. Wong DLW		DATE: 5/5/94 and 5/6/94
SUBJECT: Drinking Water Service in Rubidoux		
SITE NAME: Riverside Cement Co.	EPA ID: CAD 063844443	

DISCUSSION:

Mr. Zoba stated that the Rubidoux Community Services District Water Dept. has 5,200 connections. The water is currently extracted from eight wells. Five wells in the system have remained inactive since the late 1980s due to the presence of high levels of nitrate or total dissolved solid concentrations. The fully blended system relies entirely on groundwater with no well contributing greater than 40 percent of the supply.

The active wells are at the following locations:

- Well 1 - Crestmore Road and 34th Street
- Well 2 - Rubidoux Boulevard, north of Mission Boulevard at Arbuckle School Road
- Wells 5 and 7 - Daly Avenue and 36th Street
- Well 12 - Fort Drive
- Wells 13 and 16 - Callehermosa near Rio Road
- Well 14 - 46th Street at Jensen Road

The inactive wells are at the following locations:

- **Well 3 - 28th Street between Hall Avenue and Rubidoux Boulevard**
- **Wells 4 and 6 - Fleetwood Drive and Via Ricardo**
- **Well 8 - Daly Avenue and 35th Street**
- **Well 11 - Jensen Ranch Road and Riverview Drive**

CONTACT REPORT (Cont'd)

AGENCY/AFFILIATION: Rubidoux Community Services District		
CONTACT(S) Joseph Zoba	TITLE Assistant General Manager	DATE: 5/5/94 and 5/6/94
SITE NAME: Riverside Cement Co.		EPA ID: CAD 063844443

DISCUSSION (Cont'd):

The Water Dept. does not test each well on a programmatic basis, but tests are conducted as required and directed by the State Office of Drinking Water, San Diego Branch. In the future, the Water Dept. will extend its services to include the community of Crestmore and will take over operation of wells under the Crestmore Heights Mutual Water Co.

CONTACT CONCURRENCE: _____ **DATE:** _____

CONTACT REPORT

AGENCY/AFFILIATION: Mutual Water Co. of West Riverside		CODE: GW
DEPARTMENT: Water Department		
ADDRESS: 2475 Hall Ave.	CITY: Rubidoux	
COUNTY: Riverside	STATE: CA	ZIP: 92509
CONTACT(S) Joe S. Lara	TITLE President	PHONE (909) 682-8537
BEI PERSON MAKING CONTACT: Daniel L. Wong DLW 5/6		DATE: 5/6/94
SUBJECT: Drinking Water Service in Rubidoux		
SITE NAME: Riverside Cement Co.	EPA ID: CAD 063844443	

DISCUSSION:

Mr. Lara stated that the Mutual Water Co. of West Riverside operates one groundwater well which serves approximately 125 residences in the Belltown area within Riverside County. The well is located on Hall Avenue between Bell and El Rio avenues in Rubidoux. The well has been tested by the State Office of Drinking Water and recent findings have indicated the presence of nitrates at slightly above the state maximum contaminant level of 45 milligrams per liter. The groundwater table is at an approximate 50 foot depth and the groundwater in the vicinity of the well flows in the south-southeast direction. The well extends 160 feet below the ground surface (bgs) and the well pump extends down to 90 feet bgs.

CONTACT CONCURRENCE: _____ **DATE:** _____

~~A168 0001~~

A168 0010

CONTACT REPORT

AGENCY/AFFILIATION: Fort Fremont Mutual Water Co.		CODE: GW
DEPARTMENT: Water Department		
ADDRESS: 3918 Mennes Ave.	CITY: Riverside	
COUNTY: Riverside	STATE: CA	ZIP: 92509
CONTACT(S) Charlie Knox	TITLE Board of Director	PHONE (909) 683-6605
BEI PERSON MAKING CONTACT: Daniel L. Wong DLW		DATE: 5/6/94
SUBJECT: Drinking Water Service in Rubidoux		
SITE NAME: Riverside Cement Co.	EPA ID: CAD 063844443	

DISCUSSION:

Mr. Knox stated that the Fort Fremont Mutual Water Co. serves approximately 196 residences in the Riverside/Rubidoux area. The company operates two drinking water wells located on Fort Fremont Alley between Wallace and Mennes Aves. The system relies on 100 percent groundwater and the water is extracted utilizing a one-on and one-off approach. The choice of which well is used depends on the current demand at the time. Historically, testing of the water from these two wells has indicated the presence of nitrates at concentrations below those levels found in other wells in the vicinity. These wells have recently been tested two times per month by Babcock and Sons, Inc. under the jurisdiction of the State Office of Drinking Water and the Riverside County Department of Environmental Health.

CONTACT CONCURRENCE: Charles Knox **DATE:** May 16-94

~~A168 0006~~
A168 0012

CONTACT REPORT

AGENCY/AFFILIATION: Riverside County Planning Department		CODE:
DEPARTMENT:		
ADDRESS: P.O. Box 1409	CITY: Riverside	
COUNTY: Riverside	STATE: CA	ZIP: 92502
CONTACT(S) Dick Archaibeque	TITLE Senior Planner	PHONE (909) 275-1888
BEI PERSON MAKING CONTACT: Daniel L. Wong DLW		DATE: 5/10/94
SUBJECT: Rubidoux Area Demographics		
SITE NAME: Riverside Cement Co.	EPA ID: CAD 063844443	

DISCUSSION:

Mr. Archaibeque stated that there are 3.27 residents per household in the Rubidoux area. This data comes from the 1990 Census Bureau.

CONTACT CONCURRENCE: Richard L. Archaibeque **DATE:** May 15, 1994

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SUMMARY TAPE FILE 1A 1990 CENSUS

Total population	24,367
SEX	
Male	12,287
Female	12,080
AGE	
Under 5 years	2,491
5 to 17 years	5,732
18 to 20 years	1,139
21 to 24 years	1,420
25 to 44 years	8,071
45 to 54 years	2,169
55 to 59 years	813
60 to 64 years	816
65 to 74 years	1,142
75 to 84 years	457
85 years and over	117
Median age	28.3
Under 18 years	8,223
Percent of total population	33.7
65 years and over	1,716
Percent of total population	7.0
HOUSEHOLDS BY TYPE	
Total households	7,355
Family households (families)	5,815
Married-couple families	4,365
Percent of total households	59.3
Other family, male householder	424
Other family, female householder	1,026
Nonfamily households	1,540
Percent of total households	20.9
Householder living alone	1,227
Householder 65 years and over	440
Persons living in households	24,072
Persons per household	3.27
GROUP QUARTERS	
Persons living in group quarters	295
Institutionalized persons	246
Other persons in group quarters	49
RACE AND HISPANIC ORIGIN	
White	15,750
Black	2,357
Percent of total population	9.7
American Indian, Eskimo, or Aleut	292
Percent of total population	1.2
Asian or Pacific Islander	733
Percent of total population	3.0
Other race	5,235
Hispanic origin (of any race)	8,436
Percent of total population	34.6

Total housing units	7,872
OCCUPANCY AND TENURE	
Occupied housing units	7,355
Owner occupied	5,051
Percent owner occupied	68.7
Renter occupied	2,304
Vacant housing units	517
For seasonal, recreational, or occasional use	13
Homeowner vacancy rate (percent)	2.1
Rental vacancy rate (percent)	10.3
Persons per owner-occupied unit	3.19
Persons per renter-occupied unit	3.46
Units with over 1 person per room	1,234
UNITS IN STRUCTURE	
1-unit, detached	5,188
1-unit, attached	415
2 to 4 units	328
5 to 9 units	139
10 or more units	332
Mobile home, trailer, other	1,270
VALUE	
Specified owner-occupied units	3,840
Less than $50,000	85
$50,000 to $99,000	1,256
$100,000 to $149,000	1,276
$150,000 to $199,999	870
$200,000 to $299,999	332
$300,000 or more	41
Median (dollars)	121,300
CONTRACT RENT	
Specified renter-occupied units paying cash rent	2,209
Less than $250	236
$250 to $499	1,118
$500 to $749	644
$750 to $999	183
$1,000 or more	28
Median (dollars)	448
RACE AND HISPANIC ORIGIN OF HOUSEHOLDER	
Occupied housing units	7,355
White	5,236
Black	691
Percent of occupied units	9.4
American Indian, Eskimo, or Aleut	83
Percent of occupied units	1.1
Asian or Pacific Islander	163
Percent of occupied units	2.2
Other race	1,182
Hispanic origin (of any race)	1,879
Percent of occupied units	25.5

A168 0011
~~A168 0005~~

CONTACT REPORT

AGENCY/AFFILIATION: San Bernardino County Planning Department		CODE:
DEPARTMENT:		
ADDRESS: 385 N. Arrowhead, 3rd Floor	CITY: San Bernardino	
COUNTY: San Bernardino	STATE: CA	ZIP: 92415-0182
CONTACT(S) Dottie Pierce	TITLE Land Use Technician	PHONE (909) 387-4280
BEI PERSON MAKING CONTACT: Daniel L. Wong DLW 13		DATE: 5/10/94
SUBJECT: Bloomington's Demographics		
SITE NAME: Riverside Cement Co.	EPA ID: CAD 063844443	

DISCUSSION:

Ms. Pierce stated that Bloomington is a Census Designated Place (CDP) and includes the town of Crestmore. There are 15,116 residents and 4,445 households within this CDP. This data comes from the 1990 Census Bureau.

CONTACT CONCURRENCE: _____ **DATE:** 5-18-94

~~A168 0008~~

A168 0014

CONTACT REPORT

AGENCY/AFFILIATION: West San Bernardino County Water District		CODE: GW
DEPARTMENT: Engineering		
ADDRESS: P.O. Box 920	CITY: Rialto	
COUNTY: San Bernardino	STATE: CA	ZIP: 92377
CONTACT(S) Ken Sikorski	TITLE Superintendent	PHONE (909) 875-1804
BEI PERSON MAKING CONTACT: Daniel L. Wong DLW 5/25		DATE: 5/10/94
SUBJECT: Drinking Water Wells in Bloomington		
SITE NAME: Riverside Cement Co.	EPA ID: CAD 063844443	

DISCUSSION:

Mr. Sikorski stated that there is one drinking water well in Bloomington, Well 29, operating within the West San Bernardino County Water system. The supply system has 2,000 connections and provides water to residents in Bloomington and Rialto. Well 29 relies solely on groundwater and is blended with water primarily from Well 16. Well 29 is located at Slover and Riverside avenues and is pumped only when demand is high. At most it provides up to 10 percent of the water for the supply system. The water from Well 29 is tested monthly for nitrates, PCE, and TCE. Previous analyses have indicated the presence of nitrates up to 39 milligrams per liter, PCE up to 1 microgram per liter (µg/L), and TCE up to 3 µg/L.

CONTACT CONCURRENCE: _____ **DATE:** 5/17/94

~~A168 0007~~

A168 0013

CONTACT REPORT

AGENCY/AFFILIATION: Crestmore Heights Mutual Water Co.		CODE: GW
DEPARTMENT:		
ADDRESS: 1276 Malaga Drive MALAGA DR	CITY: Riverside	
COUNTY: Riverside	STATE: CA	ZIP: 92509
CONTACT(S) Ross Rither	TITLE President	PHONE (909) 686-6238
BEI PERSON MAKING CONTACT: Daniel L. Wong DLW 5/18		DATE: 5/10/94
SUBJECT: Drinking Water Service in Crestmore		
SITE NAME: Riverside Cement Co.	EPA ID: CAD 063844443	

DISCUSSION:

Mr. Rither stated that the Crestmore Heights Mutual Water Co. operates two groundwater wells which provide the drinking water for the Crestmore community. The wells rely solely on groundwater and are located on El Rivino Road just east of Rubidoux Boulevard approximately 70 feet apart from each other. Water usage is monitored by 103 connection meters. The wells are tested monthly under the jurisdiction of Riverside County Department of Health and results over the past few years have indicated a presence of nitrates at near or above the state maximum contaminant level of 45 milligrams per liter.

CONTACT CONCURRENCE: Ross Rither **DATE:** 5-16-94

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CONTACT REPORT

AGENCY/AFFILIATION: Riverside Public Utilities		CODE: GW
DEPARTMENT:		
ADDRESS: 3900 Main St.	CITY: Riverside	
COUNTY: Riverside	STATE: CA	ZIP: 92522
CONTACT(S) Babs Makinde	TITLE Senior Engineer/ Hydrogeologist	PHONE (909) 782-5647
BEI PERSON MAKING CONTACT: Daniel L. Wong DLW 12		DATE: 5/26/94
SUBJECT: Hydrogeological Effects of the Santa Ana River		
SITE NAME: Riverside Cement Co.	EPA ID: CAD 063844443	

DISCUSSION:

Mr. Makinde stated that the Santa Ana River may be dry during periods of the year. The amount of water in the river is dependent upon the amount of treated sewage effluent discharged into it from Colton, Rialto, and San Bernardino. To the best of his knowledge, the Santa Ana River does not serve as a hydrogeological barrier for groundwater flowing on either side of it. When the river is flowing, it flows in the southwest direction at the Riverside and San Bernardino County boundary.

CONTACT CONCURRENCE: _____ **DATE:** _____

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CONTACT REPORT

AGENCY/AFFILIATION: Regional Water Quality Control Board (RWQCB)		CODE:
DEPARTMENT: Surveillance and Enforcement Section		
ADDRESS: 2010 Iowa Ave., Suite 100	CITY: Riverside	
COUNTY: Riverside	STATE: CA	ZIP: 92507-2409
CONTACT(S) Mark Adelson	TITLE Section Chief	PHONE (909) 782-4130
BEI PERSON MAKING CONTACT: Daniel L. Wong DLW		DATE: 5/31/94
SUBJECT: Regulatory Involvement		
SITE NAME: Riverside Cement Co.	EPA ID: CAD 063844443	

DISCUSSION:

Mr. Adelson stated that the RWQCB has no intention of increasing its involvement with the Riverside Cement Co. site. Currently, the site permit to discharge water from its wastewater treatment plant is the primary focus of the RWQCB.

Mr. Adelson knows of environmental reports that have been generated for the Jensen Quarry, a plant formerly operated by the Riverside Cement Co. However, these reports did not cite concerns to prompt any RWQCB action.

CONTACT CONCURRENCE: _____ **DATE:** _____

APPENDIX D

SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT

Bechtel Environmental, Inc.
P.O. Box 193965
San Francisco, CA 94119-3965

OBSERVATIONS MADE BY: Daniel L. Wong and Tom Genolio DATE: April 25, 1994

FACILITY REPRESENTATIVE(S) and TITLE(S):

Eugene M. Kulesza, Manager of Regulatory Matters, Riverside Cement Co.
Patrick M. Hill, Plant Manager, Riverside Cement Co.
Frank T. Sheets, III, Director of Manufacturing, Riverside Cement Co.
Bruce G. Stevens, Hydrogeologist/Geologic Engineer, ERM-West, Inc.

SITE: Riverside Cement Co., Crestmore Plant

EPA ID: CAD 063844443

A site reconnaissance was conducted at the Riverside Cement Co., Crestmore Plant (Riverside Cement Co.), site on April 25, 1994. The weather was cloudy with occasional rain and the temperature was approximately 60°F. The Bechtel Environmental, Inc. (BEI) team, Daniel L. Wong and Tom Genolio, conducted the site reconnaissance with Eugene M. Kulesza, Patrick M. Hill, Frank T. Sheets, and Bruce G. Stevens at 1:00 p.m. to gather information on the site location and size, site history, processes used, and any hazardous substances generated, treated, stored, or disposed of on site. The BEI team was provided with a packet of information prepared in response to BEI's letter dated April 8, 1994. The reconnaissance included a site tour during which photographs were taken.

The following information was obtained during the site reconnaissance:

The Riverside Cement Co. site is located at 1500 Rubidoux Blvd. in an industrial area of Riverside, Calif. The site is bordered to the west by Rubidoux Boulevard, to the south by the E.L. Yeager Construction Co. and agricultural land, to the east by agricultural land, and to the north by El Rivino Road. The site occupies approximately 40 acres and is enclosed by a 6-foot chain-link fence with a main entrance gate on Rubidoux Boulevard. There are no residences, schools or daycare centers on site.

The site includes several buildings, process structures, and a wastewater treatment plant to support the production of gray and white cement. Approximately two-thirds of the site is currently not used. Portions of the site where operations currently take place or have taken place in the past include the former cement kiln dust (CKD) disposal areas, the gray and white cement kiln areas, the cement clinker storage area, a boiler blowdown pond, and Crestmore Lake. Currently, 80 people work on site in three shifts, 24 hours daily, providing continuous plant operations. The company produces white and gray cement from the raw product, cement clinker, which is trucked in from off site.

SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT (Cont'd)

Site: Riverside Cement Co., Crestmore Plant

The unused areas of the site are primarily in the eastern section. Past mining and process operations gradually ceased in these areas; however, many of the buildings and some large equipment still remain. Most of the former CKD disposal areas are located in the central portion of the site and extend to the Wet Weather Quarry. Several years ago, disposal of CKD in these areas ceased. In 1993, most of the former CKD disposal areas were capped with native soils. The current gray and white cement kiln areas are in the western portion of the site and were operating during the time of the BEI site reconnaissance. The cement clinker storage area is located in the northern section of the site and has cement clinker in outdoor storage piles. Crestmore Lake occupies approximately 8 acres of the site and was formerly the Crestmore Mine. The sides of the lake slope to a depth of approximately 100 feet below ground surface. The lake water had a clear appearance. The lake was formed by mining operations of the Crestmore Mine, which led to direct penetration of the underlying aquifer. Mining ceased in 1985 and the groundwater seeped through the excavated ground surface.

CKD is no longer produced or disposed of on site. Currently, hazardous substances stored on site include lubricants that are used for maintaining equipment operation, and other chemicals used for vehicle maintenance and equipment cleaning. Equipment cleaning solutions are supplied and brought on site by chemical distributor companies. Soiled rags used in cleaning processes and spent cleaners are usually taken off site by these haulers in bins or totes. The bins and totes are replaced with new supplies and clean rags. Site inspections by the California Integrated Waste Management Board and the California Environmental Protection Agency, Regional Water Quality Control Board, were infrequent between 1991 and 1993 and no citations were issued. Riverside Cement Co. currently maintains several operating permits from the South Coast Air Quality Management District (SCAQMD). In November 1993, the SCAQMD issued a citation for dust emissions from the cement clinker system and, in 1990, for failure of the dust collection system. These citations were immediately resolved.

Two monitoring wells, MW-1 and MW-3, were installed on site in the 1990s but are not sampled regularly. Regular sampling of these wells may occur if future plans for an additional plant to be built on the former CKD disposal areas commence.

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SITE SCREENING ASSESSMENT

Prepared by: Rania A. Zabaneh
California Department of Toxic Substances Control
Cooperative Agreement Number: V-99925205-1
DTSC Fiscal Year: 06-07

Prepared for:
United States Environmental Protection Agency
Region 9
States, Planning, and Assessment Office
San Francisco, California

Date: December 8, 2006

Site Name: Riverside Cement Company – Crestmore Plant
EPA ID Number: CAD063844443
City: Riverside
County: Riverside
DTSC Regional Office: Cypress (4)

Rania

PRIVLEGED AND CONFIDENTIAL – DELIBERATIVE

EXECUTIVE SUMMARY

Site Name:	**Riverside Cement Company – Crestmore Plant**
EPA ID Number:	**CAD063844443**

Findings and Recommendation:

FINDINGS: (new sites only) SITE IS CERCLIA ELIGIBLE - refer to section 1 3	☒	Yes	☐	No	
REFERRAL TO EMERGENCY RESPONSE - refer to section 1 4	☐	Yes	☒	No	
PRIMARY REGULATORY AGENCY INVOLVED - refer to section 3 0	☐	Federal	☒	State	☐ Local ☐ N/A
OVERALL SITE PRIORITY LEVEL	☐	High	☐	Medium	☐ Low
HAZARD FACTOR VALUE	☐	High	☐	Medium	☐ Low
VULNERABILITY FACTOR VALUE	☐	High	☐	Medium	☐ Low
OTHER INFLUENCING FACTORS - refer to section 4 0	☐	High	☐	Medium	☐ Low
RECOMMENDATION: REMEDIATION LEAD: STATE OR FEDERAL:	☒	State	☐	Federal	☐ Local
FORWARD TO TRIAGE:	☐	Yes	☒	No	☐ Hold

Signatures and Concurrence:

DTSC Screener:	Signature	Rania Zabaneh (Type Name)	December 8, 2006 (Date: MM/DD/YYYY)
DTSC Approval:	Signature	Greg Holmes (Type Name)	Date: (MM/DD/YYYY)
EPA Concurrence:	Signature	Matt Mitguard (Type Name)	6/6/07 (Date: MM/DD/YYYY)

Note: Executive Summary page to be copied to originator once EPA Concurrence block is signed. EPA concurrence approves screen for purpose of a grant deliverable.

EPA only:

Date sent to DTSC: 6-6-07

Next Triage Meeting (MM/DD/YY):

Comments: OCA START

☐ Site is eligible for CERCLA. Further assessment is recommended. Non-NPL Status = PA Start needed, NPL Status = N

☐ The site is not eligible for CERCLA. NPL Status = O for all options below

- ☐ Non-NPL Status = Not a Valid Site
- ☐ Non-NPL Status = Not a Valid Site – RCRA Lead
- ☐ Non-NPL Status = Not a Valid Site – NRC Lead
- ☐ Non-NPL Status = Not a Valid Site – State Lead

EXECUTIVE SUMMARY

Site Name:	**Riverside Cement Company – Crestmore Plant**
EPA ID Number:	**CAD063844443**

Findings and Recommendation:

FINDINGS: (new sites only)						
SITE IS CERCLIA ELIGIBLE	☒	Yes	☐	No		
- refer to section 1.3						
REFERRAL TO EMERGENCY RESPONSE	☐	Yes	☒	No		
- refer to section 1.4						
PRIMARY REGULATORY AGENCY INVOLVED	☐	Federal	☒	State	☐	Local
- refer to section 3.0					☐	N/A
OVERALL SITE PRIORITY LEVEL	☐	High	☐	Medium	☐	Low
HAZARD FACTOR VALUE	☐	High	☐	Medium	☐	Low
VULNERABILITY FACTOR VALUE	☐	High	☐	Medium	☐	Low
OTHER INFLUENCING FACTORS	☐	High	☐	Medium	☐	Low
- refer to section 4.0						
RECOMMENDATION:						
REMEDIATION LEAD: STATE OR FEDERAL:	☒	State	☐	Federal	☐	Local
FORWARD TO TRIAGE:	☐	Yes	☒	No	☐	Hold

Signatures and Concurrence:

DTSC Screener:	_____ Signature	Rania Zabaneh Type Name	December 8, 2006 Date: (MM/DD/YYYY)
DTSC Approval:	_____ Signature	Greg Holmes Type Name	_____ Date: (MM/DD/YYYY)
EPA Concurrence:	_____ Signature	Matt Mitguard Type Name	_____ Date: (MM/DD/YYYY)

Note: Executive Summary page to be copied to originator once EPA Concurrence block is signed. EPA concurrence approves screen for purpose of a grant deliverable.

EPA only:

Date sent to DTSC: _____

Next Triage Meeting (MM/DD/YY):

Comments:

☐ Site is eligible for CERCLA. Further assessment is recommended. Non-NPL Status = PA Start needed, NPL Status = N

☐ The site is not eligible for CERCLA. NPL Status = O for all options below

- ☐ Non-NPL Status = Not a Valid Site
- ☐ Non-NPL Status = Not a Valid Site – RCRA Lead
- ☐ Non-NPL Status = Not a Valid Site – NRC Lead
- ☐ Non-NPL Status = Not a Valid Site – State Lead

US EPA / CA DTSC COOPERATIVE AGREEMENT
SITE SCREENING ASSESSMENT
Table of Contents

1.0 General Instructions
- 1.1 Site Information
- 1.2 Core Locational Information
- 1.3 CERCLA Eligibility
  - Attachment A: Site Screening Assessment Contact Log
  - Attachment B: Site Evaluation Map and Backup
- 1.4 Removal Assessment Eligibility (non-time critical)

2.0 Technical Information
- 2.1 Operational History
- 2.2 Contaminants
- 2.3 Has a release as defined in CERCLA Section 101(22) occurred?
- 2.4 Pathway(s) of contaminant migration
- 2.5 Sampling History
- 2.6 Additional Information
  - Attachment C: Site Screening Assessment Observation Record
  - Attachment D: Site Type – Primary/Secondary Activity Form
  - Attachment E: Sampling Event Summary Table

3.0 Regulatory and Enforcement History
- 3.1 Regulatory Agencies: Federal
- 3.2 Regulatory Agencies: State, State Deferral
- 3.3 Regulatory Agencies: Local
- 3.4 PRP Viability
  - Attachment F: Enforcement and Regulatory Reference Documentation

4.0 Site Prioritization Worksheet
- 4.1 Hazards Identification
- 4.2 Vulnerability Analysis
- 4.3 Other Influencing Factors
- 4.4 Overall Ranking of Site

Attachment A – Site Screening Assessment Contact Report

Attachment B – Site Evaluation Map and Site Report (EPA GIS Center) Cover Page

Attachment C – Site Screening Observation Record

Attachment D – Site Type – Primary/Secondary Activity Form

Attachment E – Site Screening Assessment Sampling Event Summary Table & Analytical Results

Attachment F – Enforcement and Regulatory Agency Reference Documentation Cover Page

1.0 GENERAL INSTRUCTIONS

Complete this section electronically using readily available information and contact information from appropriate individuals. A Site Screening Assessment Contact Log (Attachment A) should be used to document information gained through correspondence, interviews, file reviews and telephone calls. Add extra pages if necessary

1.1 Origin of Site Under Assessment: Pick one

Origin		Required Information for submittal to EPA
New site from a discovery project	☐	Fill out entire SSA Form
Discovery Project Title:		
Existing CERCLIS Site which is a candidate for triage?	☒	Sections 1 and 3 minimum
New site: Independent Discovery Vehicle	☐	Fill out entire SSA Form

1.2 Core Locational Information:

Site Name: Riverside Cement Company – Crestmore Plant

Other Names:

Site Street Address: 1500 Rubidoux Boulevard

City, County, State: Riverside , Riverside , California

Zip Code: 92502 -

Primary EPA ID Number: CAD063844443

Secondary EPA ID #s:

In Calsites Database? ☒ Yes ☐ No If, yes, specify ID number 33140002

CA DTSC REGION: Cypress (4)

CA RWQCB REGION: Santa Ana (8)

Latitude: 34.02558 Longitude: -117.38991

MAD Code:

Note: Latitude and Longitude coordinates along with MAD code will be generated by the USEPA GIS Center along with an accompanying "Site Evaluation Map and Site Report (Attachment B) of this document. Latitude and Longitude coordinate and accompanying Site Evaluation Maps should be requested via email to the EPA Document Control Officer, Joan Simmons

1.3 CERCLA Eligibility

Complete the following checklist. If Ayes@ is marked, the site may not be eligible for CERCLA assessment without further justification. Please explain in the Decision / Rationale section below.		**YES**	**NO**
1	Does the site already appear in CERCLIS?	☒	☐
2	Is the release from products that are part of the structure of, and result in exposure within, residential buildings or businesses or community structures?	☐	☒
3	Does the site consist of a release of a naturally occurring substance in its unaltered form, or altered solely through naturally occurring processes or phenomena, from a location where it is naturally found?	☐	☒
4	Is the release into a public or private drinking water supply due to deterioration of the system through ordinary use?	☐	☒
5	Is some other program actively involved with the site (i.e., another Federal, State, or Tribal program)?	☐	☒
6	Are the hazardous substances potentially released at the site regulated under a statutory exclusion (i.e , petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?	☐	☒
7	Are the hazardous substances potentially released at the site excluded by policy considerations (e.g., deferral to RCRA Corrective Action)?	☐	☒
8	Is there sufficient documentation that clearly demonstrates that there is no potential for a release that could cause adverse environmental or human health impacts (e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, EPA approved risk assessment completed)?	☐	☒
9	Part of a NPL-Site?	☐	☒

Briefly explain all "yes" answers in "Decision/Rationale" section below. Use number reference.

Number **Explanation of "yes" answer:**

1 Riverside Cement Company – Crestmore Plant was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Comprehensive and Liability Information System (CERCLIS) as of August 1, 1980

	Yes	No
SITE IS CERCLA ELIGIBLE	☒	☐
Note: This recommendation should be included on Executive Summary Page		

1.4 Removal Assessment Eligibility

Use the following eligibility criteria to determine if the site should be referred for emergency response. If the answer to any question is yes, get the site may be eligible for referral emergency response If a question cannot be answered, explain why in the Comments section below.

1.	Is there actual or potential exposure to nearby populations, animals, or the food chain from hazardous substances, pollutants, or contaminants?	☐ Yes	☒ No
2.	Is there actual or potential contamination of drinking supplies or sensitive ecosystems?	☐ Yes	☒ No
3.	Are hazardous substances, pollutants, or contaminants in drums, barrels, tanks, or other bulk storage containers which may pose a threat of release?	☒ Yes	☐ No
4.	Are there high levels of hazardous substances, pollutants, or contaminants are soils largely at or near the surface, which may migrate and affect populations or the environment?	☐ Yes	☒ No
5.	Could weather conditions cause hazardous substances, pollutants, or contaminants to migrate or be released?	☐ Yes	☐ No
6.	Is there a threat of fire or explosion?	☐ Yes	☒ No
7.	Are there appropriate Federal or State response mechanisms to respond to the release or potential release?	☒ Yes	☐ No
8	Are there other situations or factors which may pose threats to public health, welfare, or the environment?	☐ Yes	☒ No
9	For the situation where there appears to be primarily a groundwater contamination problem, is there a near-surface source which can be removed?	☐ Yes	☒ No

Please explain all "yes" answer(s), noting question number (character max = 400, attach additional page if necessary):

3. Bulk tanks on site include Diethyl Glycol (DEG) and acetic acid. Used oil, oil rags and other cleanup material is stored in drums in the hazardous waste concrete storage area. DEG, gasoline, diesel oil are flammable, but they are not easily combustible or hazardous in the manner they are stored in.

Past groundwater analyses have shown that disposal activities at the Riverside Cement Co (RCC) have not significantly impacted groundwater. The results of groundwater sampling showed that the concentrations of metals and other constituents were not elevated at the quarry area with respect to upgradient and downgradient wells and also were not above drinking water action limits (MCLs).

According to Mr. Gregory A. Knapp of the Riverside Cement Company, the RCC Crestmore Plant does not generate any more waste All waste is recycled back into the kilns to become a product and there is no more land disposal. In the mid-1980's, Crestmore stopped production of grey cement and currently only produces white cement.

7 The Regional Water Quality Control Board, Santa Ana (RWQCB) is overseeing the closure of the following areas: closure of the Boiler blow down, Disposal Pond, and the CKD Dust Disposal Area. RCC still needs to supply RWQCB with site soil cover depths before closure. The Riverside County Health Services Agency oversaw the remedial excavation of the hydrocarbon impacted soil.

	Yes	No
Refer to Emergency Response	☐	☒
Note: This recommendation should be included on Executive Summary Page		

3.0 REGULATORY AND ENFORCEMENT HISTORY

Provide information regarding past and present regulatory and enforcement activity associated with the site Citations and reference documentation should be included *for **initiation, status, and certification*** documents used for substantiating site status. Web links may be used when accompanying a short narrative regarding what the document in the link states about the site. *Sections 3 1 through 3.4 are limited of 1800 characters (approximately two paragraphs). Responses requiring more space should be included as a reference to this report and identified below with the statement "See Attachment F".*

This section, along with section 1 required for Other Cleanup Activity (OCA sites ("G4 sites"))

Primary Regulatory Agency Involved ☐ Federal ☒ State ☐ Local ☐ None

Note: This recommendation should be included on Executive Summary Page

3.1 Regulatory Agencies: Federal

The site discovery date in the Comprehensive Environmental Response, Comprehensive and Liability Information System (CERCLIS) is August 1, 1980

U.S. EPA approved a Preliminary Assessment on September 1, 1988 and a Site Inspection on December 1, 1990.

The Department of Toxic Substances Control (DTSC) conducted a Site Investigation Reassessment for the U S EPA in December of 2002.

3.2 Regulatory Agencies: State

The Lahontan RWQCB enforced waste discharge requirements for the site in 1989.

The Regional Water Quality Control Board, Santa Ana (RWQCB) is overseeing the closure of the Boiler blow down, Disposal Pond, and the CKD Dust Disposal Area. RCC still needs to supply RWQCB with site soil cover depths before closure.

The South Coast Air Quality Management District (SCAQMD) permitted numerous processes at the site. RCC was in compliance with its permits SCAQMD updates the facility's permits to require further air pollution controls on open stockpiles and conveyors that contribute to the site's dust emissions

3.3 Regulatory Agencies: Local

The County of Riverside, Department of Health completed a site investigation and remedial action for the underground storage tanks at the Site in November of 1991. It was decided that no further action was required at that time.

3.4 PRP Viability

Riverside Cement Company (RCC) was established in 1906. In January of 1958, RCC became part of American Cement Corporation whose name was changed to Amcord in May 1973. In December 1979, Gifford-Hill & Co. Inc., a Texas Co , acquired Amcord and in October 1986, Beazerm Plc , an English firm, acquired Gifford-Hill & Co. Inc. In January 1991, RCC became a California General partnership. Then, in June of 1991, half of the partnership was acquired by Ssangyong Cement of Korea and the other half was controlled by Beazer West.

In February of 1995, Ssangyong Cement Industrial Co Ltd became the 100% owner of the Riverside Cement Company (RCC). On September 9, 1997, a press release from Dallas indicated that Texas Industries, Inc. reached an agreement to purchase RCC from Ssangyong Cement Industrial Co. Ltd.

The Riverside Cement Company is viable.

SITE SCREENING ASSESSMENT

Prepared by: Rania Zabaneh
California Department of Toxic Substances Control
Cooperative Agreement Number: V-97999001-0
DTSC Fiscal Year: 2008/2009

Prepared for: Matt Mitguard
United States Environmental Protection Agency
Region 9
States, Planning, and Assessment Office
San Francisco, California

Date: May 4, 2009

Site Name: Riverside Cement Co. – Crestmore
City: Riverside
County: Riverside
EPA ID Number: CAD63844443
CADTSC Envirostor ID Number: 33140002
DTSC Regional Office: Cypress (4)

The Site Screening Assessment (SSA) is used for preliminary data gathering and planning purposes. All findings and recommendations are subject to change if new information necessitating further consideration is discovered.

EXECUTIVE SUMMARY

Site Name:	Riverside Cement Co. - Crestmore
EPA ID Number:	CAD63844443
Envirostor ID:	33140002
Site Screen	**YES:** ☐ **NO:** ☒
Site Reassessment	**YES:** ☒ **NO:** ☐

Findings and Recommendation :

Pre-Triage Recommendation					
Refer to: ☐ EPA ☐ CADTSC ☒ CARWQCB ☐ Local Agency					
FORWARD TO TRIAGE:	☐	Yes	☒	No	
Post-Triage Recommendation					
Refer to: ☐ EPA ☐ CADTSC ☐ CARWQCB ☐ Local Agency					

Final Signatures and Concurrence:

DTSC Screener: _____ Rania Zabaneh (Type Name) _____

DTSC Approval: _____ (Signature) Greg Holmes (Type Name) _____ (Date: (MM/DD/YYYY))

EPA Concurrence: _____ (Signature) Matt Mitguard (Type Name) _____ (Date: (MM/DD/YYYY))

SITE SCREENING ASSESSMENT (SSA)

Site Screening: ☐ \ **Site Reassessment:** ☒

Section 1: Site Information

1.1: Site Name: Riverside Cement Company - Crestmore
Other Names: Riverside Cement Co.

1.2: Origin of Site under assessment:

Discovery Project/Name:
or
Referral from other Agency/Name:
or
Complaint/ Name:
or
In CERCLIS (for Reassessments):

1.3: Site Location Information

Street Address: 1500 Rubidoux Boulevard

City: Riverside **County:** Riverside

State: California **Zip Code:** 92502

Latitude: 34.0280 **Longitude:** -117.3867

Acres: 10 acres

1.3 Regulatory Information:

CERCLIS? Yes **RCRA site?** No

SLIC site? No **LUFT site?** No

UST site? No **WIP site?** No

Landfill site? Yes **Local Agency site?** No

Envirostor ID: CAD63844443 **EPA ID:** 33140002

Geotracker ID: T0606500166 **Geotracker Case Number:** 083301366T

Is the contamination petroleum related: No

Section 2: Operational History

Current owner: Riverside Cement Co. - Crestmore
Current operator: Riverside Cement Company
Hazardous materials used: Kiln brick-containing chromium
Hazardous materials suspected: Chromium
Dates of operation: 1914 until Present

Historical owners/operators that may have used Hazardous Materials onsite:
Specify dates and materials that may have been used:

Owners:
Operators:
Hazardous materials used:
Hazardous materials suspected:
Dates of operation:

Section 3: Site Impact Information

What is the site setting: Industrial
Details:

Land use surrounding the site: Industrial
Details:

Are there residences within 200 feet: No
Details:

Are there schools/day care centers within 200 feet: No
Details:

Surface water within 2 miles of the site? Yes
Details: The nearest surface water bodies are the Santa Ana River and the Riverside Canal which are both used for irrigation or flood control purposes.

Are there any sensitive environments or wetlands within 2 miles of site: No
Details: A habitat for the federally-listed endangered species Kangaroo Rat (Stevens Kangaroo Rat) is located 15 miles from the site. The Delhi Sands Giant Flower-Loving Fly has been recognized as endangered, but presently, no habitat has been established.

Is this site a source of contamination to surface water? No
Details:

Is surface water used for drinking water within 15 miles of the site? No

If yes, is the surface water used for public / commercial supply:

If yes, is the surface water used for private supply:

If yes, approximately how many people served by the surface water:

Details:

Is groundwater used for drinking water within 4 miles of site? Yes

If yes, are the drinking wells public / commercial: Public **or private**

If yes approximately how many people served by the ground water: 60,058

Details: The closest drinking water well is the Crestmore Heights Mutual Water Company. The closest operating down-gradient public water supply wells are 3.75 miles away in the river alluvium and are not likely to be impacted by the cement kiln dust (CKD) disposal since the proximal wells in the alluvium show no impact.

Is groundwater within 4 miles of the site known to be contaminated with hazardous substances? Yes

If yes, what hazardous substances: Chromium, lead, and manganese

If yes, do any of the levels exceed drinking water standards? No

Details: In 1991, Ecology and Environment, Inc. sampled two existing wells hydraulically upgradient and downgradient of the Wet Weather Quarry. Analyses of the samples indicated the presence of chromium, lead, and manganese in the downgradient well at concentrations greater than three times than in the upgradient well.

Is this site a source of ground water contamination? Unknown
Details: Contamination of groundwater could possibly be caused by migration of soil contamination into groundwater.

Any Community Involvement? No
Details:

Site Reconnaissance

1. **Date of visit:** March 30, 2009
2. **Adjacent properties:**

   North El Ravino Golf Course
   South Industrial
   East Industrial
   West Residential & Industrial

3. **Structures onsite (e.g. Office Bldg, Paint Booth, Repair Shop etc.):** Office building, packing house, maintenance shop, the plant (all operations idled); Railroad tracks run though the property and are operational.

4. **Any visual staining:** No

5. **Any hazardous Materials storage onsite:** Waste oil

6. **Specify any hazardous Materials used onsite:** None

7. **Indicate if following are present onsite, specify volume, content and how many:**

a) **Drums:** Yes, a number of 55-gallon drums of waste oil
b) **ASTs:** Yes, diesel & gas
c) **USTs:** No
d) **Clarifiers:** Yes, for truck wash
d) **Other:**

8. **Any transformers containing PCBs?** Possibly; Southern California Edison Company is currently leasing a portion of the facility

9. **Any previous sampling results:** Yes, see Attachment E.

Section 4: Recommendations/Conclusions

Does the site pose an immediate threat and require Removal? No

Have there been any historical releases at the site: Yes. Used kiln brick containing chromium, was disposed of in a landfill located on-site from 1955 to 1979. As of June 1984, records from the RWQCB show that well 60-1 located on-site is contaminated with chromium. Old mine shafts were also used to dispose of various wastes according to the same records.

Based on the site reconnaissance and/or regulatory search is there a potential for a release at the site? No

Summary

Riverside Cement Company (RCC) was established in 1906. In January 1958, RCC became part of American Cement Corporation whose name was changed to Amcord in May 1973. In December 1979, Gifford-Hill & Co. Inc., a Texas Co., acquired Amcord and in October 1986, Beazerm Plc., an English firm, acquired Gifford-Hill & Co. Inc. In January 1991, RCC became a California General partnership. Then, in June of 1991, half of the partnership was acquired by Ssangyong Cement of Korea and the other half was controlled by Beazer West.

In February of 1995, Ssangyong Cement Industrial Co. Ltd became the 100% owner of Riverside Cement Company (RCC). On September 9, 1997, a press release from Dallas indicated that Texas Industries, Inc. reached an agreement to purchase RCC from Ssangyong Cement Industrial Co. Ltd.

The RCC - Crestmore Plant (Crestmore) was identified as a potential hazardous waste site and entered into the Comprehensive Environmental Response, Comprehensive and Liability Information System (CERCLIS) as of August 1, 1980.

Crestmore operates a cement-manufacturing plant utilizing limestone from a mine located on-site. The Site has been in operation since approximately 1914. Four kilns are used to heat a mixture of limestone, clay, and sand, producing cement. Calcium carbonate, aluminum oxide, iron oxide, and silica oxide are mixed together and then sent through the kiln with the resulting charcoal-like substance pulverized into cement powder and then bagged. The kiln bricks are stressed by extreme heat and must be replaced every eight or nine months. According to a CERCLA form submitted by the company, used kiln brick containing chromium was disposed in a landfill located on-site from 1955 to 1979. As of June 1984, records from the Regional Water Quality Control Board (RWQCB) show that well 60-1 located on-site is contaminated with chromium. Old mine shafts were also used to dispose of various wastes according to the same records. (Department of Health Services – Toxic Substances Control Division, 1984.)

Bulk tanks on site include Diethyl Glycol (DEG) and acetic acid. Used oil, oil rags, and other cleanup materials are stored in drums in the hazardous waste concrete storage area. DEG, gasoline, diesel oil are flammable, but they are not easily combustible or hazardous in the manner they are stored in.

Past groundwater analyses have shown that disposal activities at Crestmore have not significantly impacted groundwater. The results of groundwater sampling showed that the concentrations of metals and other constituents were not elevated at the quarry area with respect to upgradient and downgradient wells and also were not above drinking water action limits (MCLs).

According to Mr. Gregory A. Knapp of RCC, Crestmore does not generate any more waste. All waste is recycled back into the kilns to become a product and there is no more land disposal. In the mid-1980's, Crestmore stopped production of grey cement and currently only produces white cement.

The Regional Water Quality Control Board, Santa Ana (RWQCB) is overseeing the closure of the following areas: closure of the Boiler blow down, Disposal Pond, and Cement Kiln Dust

(CKD) Dust Disposal Area. RCC still needs to supply RWQCB with site soil cover depths before closure. The Riverside County Health Services Agency oversaw the remedial excavation of the hydrocarbon impacted soil. (See attachment)

The South Coast Air Quality Management District (SCAQMD) permitted numerous processes at the site. RCC was in compliance with its permits. SCAQMD updates the facility's permits to require further air pollution controls on open stockpiles and conveyors that contribute to the site's dust emissions.

The County of Riverside, Department of Health completed a site investigation and remedial action for the underground storage tanks at Crestmore in November of 1991. It was decided that no further action was required at that time.

The Department of Toxic Substances Control (DTSC) conducted a number of Site Reassessments for the U.S. EPA, the last taking place in December of 2006.

In November of 1995 Ryan-Murphy, Inc. (RMI) conducted a remedial excavation for the Site in which approximately 525 cubic yards of hydrocarbon impacted soil in the area of the former white kiln fuel pipeline was removed. (See attachment)

In a letter from RRC to Mr. Johnson Abraham of DTSC dated March 14, 2003, Mr. Gregory Knapp indicated that all CKD, limestone quarry, and bricks removed from the white kilns are recycled back into kilns as feed and become product.

As of the date of the site visit conducted (March 30, 2009), for this site reassessment, all kilns and mills operations had been idled (due to the economic downturn.)

Attachment A

SITE SCREENING ASSESSMENT CONTACT REPORT

Site Name: Riverside Cement Co. – Crestmore **Site Screener:** Rania Zabaneh

Contact Name	Affiliation	Telephone Number	Date	Discussion
Desirea Haggard	TXI - Riverside Cement Company	(760) 245-5321 ext. 319	3/30/ 2009	Main contact at RCC – Crestmore Plant. Met with Desirea for a walk though of the site and to take pictures of the facility.

Attachment B

SITE EVALUATION MAP AND BACKUP COVER PAGE

Attachment C

SITE SCREENING ASSESSMENT ATTACHMENT INDEX

Site Name: Riverside Cement Co. - Crestmore **Site Screener:** Rania Zabaneh

Attachment #	Document Title	Date	Details of Attachment
1-	Google Earth	N/A	Bird's eye view of the site.
2-	Geotracker	2/9/2009	Printout of SWRCB Geotracker info from the internet.
3-	CERCLIS	3/2/2009	Printout of Superfund Site Information regarding the site.
4-	Appendix E	11/4/2002	Site Reconnaissance Interview and Observations Report from a previous Site Reassessment of the site.
5-	DTSC Letter to RP	2/9/2009	Information Request Letter from DTSC to RCC company.
6-	Correspondence Letters & other site information	12/31/2002	Correspondence letters and other information regarding the site taken from a Preliminary Assessment done by Johnson Abraham of DTSC.

Attachment D

SITE TYPE – PRIMARY/SECONDARY ACTIVITY FORM

Fed Fac Indicator: ☐ Federal Facility ☒ Not A Federal Facility ☐ Status Undetermined

RCRA Status: ☐ Generator ☐ TSDF ☐ Transporter ☒ Not listed in RCRIS

SITE TYPES **(Designate one dominant primary category (*PC*). Designate all secondary subcategories (*SS*) that apply.) Site type designations for both primary & secondary should pertain to the operation(s) on site of environmental consequence.**

P C	S S	Manufacturing/Processing/Maintenance (Subcategory)
☐	☐	Chemicals and allied products
☐	☐	Coal gasification
☐	☐	Coke production
☐	☐	Electric power generation and distribution
☐	☐	Electronic/electrical equipment
☐	☐	Fabrics/textiles
☐	☐	Lumber and wood products/pulp and paper
☐	☐	Lumber and wood products/wood preserving/treatment
☐	☐	Metal fabrication/finishing/coating and allied industries
☐	☐	Oil and gas
☐	☐	Ordnance production
☐	☐	Plastics and rubber products
☐	☐	Primary metals/minerals processing
☐	☐	Radioactive products
☐	☐	Tanneries
☐	☐	Trucks/ships/trains/aircraft and related components

P C	S S	Waste Management (Subcategory)
☐	☐	Radioactive waste treatment, storage, disposal
☐	☐	Municipal solid waste landfill
☐	☒	Mine tailings disposal
☐	☒	Industrial waste landfill
☐	☐	Industrial waste facility (non generator)
☐	☐	Illegal disposal/open dump
☐	☐	Co-disposal landfill (municipal and industrial)

P C	S S	Other (Subcategory)
☐	☐	Agricultural
☐	☐	Contaminated sediment site with no identifiable source
☐	☐	Dust control
☐	☐	Ground water plume site with no identifiable source
☐	☐	Military/other ordinance
☐	☐	Product storage/distribution
☐	☐	Research, development, and testing facility
☐	☐	Retail/commercial
☐	☐	Spill or other one time event
☐	☐	Transportation (e.g. railroad yards, airports, barge docking site
☐	☐	Treatment works/septic tanks/other sewage treatment

P C	S S	Mining (Subcategory)
☐	☐	Coal
☐	☐	Metals
☒	☐	Non-metals minerals
☐	☐	Oil and gas

P C	S S	Recycling (Subcategory)
☐	☐	Automobiles/tires
☐	☐	Batteries/scrap metals/secondary smelting/precious metal recovery
☐	☐	Chemicals/chemicals waste (e.g. solvent recovery)
☐	☐	Drums/tanks
☐	☐	Waste/used oil

SITE TYPES **(Designate one dominant primary category (*PC*). Designate all secondary subcategories (*SS*) that apply.)**

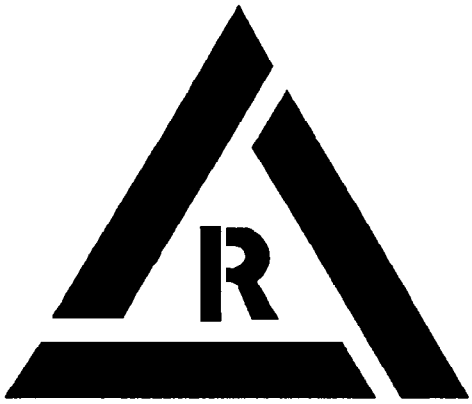
Attachment E

SITE SCREENING ASSESSMENT SAMPLING EVENT SUMMARY TABLE

Site Name: Riverside Cement Co. - Crestmore **Site Screener:** Rania Zabaneh

Date	Event	Media	Location	Depth	Method	Quality	Result	Benchmark
Oct 28, 1996	Annual Groundwater Monitoring by ERM-West, Inc. (ERM)	Groudwater	MW-3	Unknown	EPA method 6010	Unknown	Total Chromium 21 µg/L (ppb)	MCL CA 50 µg/L (ppb)

G-922



Riverside Cement Company

TECHNICAL EVALUATION 9/30/90 EPA FIT REPORT RIVERSIDE CEMENT COMPANY CRESTMORE PLANT

Prepared for

Crestmore Facility
Riverside Cement Company
Riverside County, California

Prepared by

ERM-West, Inc.

1920 Main Street, Suite 600
Irvine, California

November 1991

TABLE OF CONTENTS

	Page
LIST OF FIGURES	iii
LIST OF TABLES	iv
EXECUTIVE SUMMARY	v
SECTION 1	
1 0 INTRODUCTION	1-1
1.1 EPA Contractor Activities	1-1
1 2 Focus of Technical Evaluation	1-2
1.3 Generation and Disposal of CKD and Basic Brick	1-2
1.3.1 Wet Weather Quarry	1-3
1.3.2 Commercial Quarry	1-3
1.3 3 North Side of Crestmore Mine	1-4
1.4 Chemical Analyses and Properties of CKD	1-4
1.5 Other Factors	1-5
SECTION 2	
2.0 GEOLOGY AND HYDROGEOLOGY	2-1
2.1 Geology and Hydrogeology of the Crestmore Plant Area	2-1
2.2 Review of Historical Studies for Mine Dewatering Activities	2-2
2.3 Hydrogeologic Effect of Final Mining Activities and Mine Closure	2-3
2.3.1 Chino Limestone	2-4
2.3 2 Wet Weather Limestone	2-5
2.3.3 Santa Ana River Alluvium	2-5
2.4 Summary	2-6
SECTION 3	
3.0 GROUND WATER CHEMISTRY	3-1
3.1 Available Data Prior to EPA Site Screening Investigation	3-1
3.1.1 Well Sampling Data	3-1
3 1.2 Surface Water Sampling Data	3-2
3 2 Data Generated During the EPA Investigation	3-2

TABLE OF CONTENTS

	Page
3.2.1 Ground Water Well Data Presented in the FIT Report	3-3
3.2.2 CKD Leachability Testing	3-4
3.3 Collection of Recent Ground Water Data	3-5
3.3.1 Installation and Sampling Procedures	3-5
3 2.2 Analytical Results	3-5
SECTION 4	
4 0 EVALUATION OF GROUND WATER CONDITIONS	4-1
4.1 FIT Report Hazard Ranking System Factors	4-1
4.2 Hazard Posed by CKD and Basic Brick Disposal	4-1
4.3 Evidence from Chemical Analysis of Ground Water and Surface Water Samples	4-2
4.4 Location of Crestmore Heights Public Water Supply Well	4-3
4.5 Ground Water Target Population	4-4
4.6 Summary of Key Technical Findings	4-4
APPENDIX A	
EPA FIT REPORT	
APPENDIX B	
SURFACE WATER ANALYTICAL DATA	
APPENDIX C	
ERM-WEST INVESTIGATION METHODS AND FIELD SHEETS	
APPENDIX D	
LABORATORY RESULTS	
APPENDIX E	
ERM-WEST FIELD QA/QC PROCEDURES	

LIST OF FIGURES

Figure		Following Page
FIGURE 1-1	Site Location	4-5
FIGURE 1-2	Location of Wells and Cement Kiln Dust Disposal Areas	4-5
PLATE I	Geologic Map of the Eastern Portion of the Jurupa Mountains California	4-5
FIGURE 2-1	Detailed Geologic Map	4-5
FIGURE 2-2	Cross-section A-A' at 1350N	4-5
FIGURE 2-3	Cross-section B-B' at 2000E	4-5
FIGURE 2-4	Cross-section C-C' at 3230E	4-5
FIGURE 2-5	Ground Water Contour Map	4-5
FIGURE 3-1	Well Location Map	4-5
FIGURE 3-2	Ground Water Well Location Map	4-5

LIST OF TABLES

Table		Following Page
TABLE 1-1	Comparison of CKD with Background Soil Trace Metals	1-4
TABLE 3-1	Selected Analytical Results from EPA Ground Water Samples	3-3
TABLE 3-2	Selected Analytical Results from Ground Water Samples Collected 6/11/91	3-5

EXECUTIVE SUMMARY

The United States Environmental Protection Agency, Region IX (EPA) issued a Field Investigation Team (FIT) report in September 1990 which recommended that the Riverside Cement Company (RCC) Crestmore facility be assigned a higher priority for a Listing Site Investigation (LSI). The primary basis for this recommendation was the conclusion that disposal operations at the RCC site had adversely impacted ground water with chromium. ERM-West, Inc. (ERM-West) has reviewed the FIT Report and after further analysis and extensive hydrogeological studies, has found significant differences in the technical analyses, the underlying assumptions, and the resulting conclusions of the FIT Report

ERM-West concludes through their extensive analysis of existing and new information that the RCC facility has not impacted ground water with chromium. This would close the case for RCC's Crestmore Facility with an EPA finding of NO FURTHER ACTION

The important findings of the FIT Report were the following:

- The predominant waste stream from the cement manufacturing operations was cement kiln dust (CKD);
- A minor waste stream was waste refractory brick containing 10% hexavalent chromium. Approximately 48 cubic yards of this brick was codisposed with 250,015 tons of CKD between 1955 and 1979; and
- Ground water has apparently been impacted by the facility

ERM-West reviewed the geology and hydrogeology in the vicinity of the Crestmore facility and determined that the field conditions were much more complex than presented in the FIT report and did not support the conclusions in the FIT report. ERM-West installed and sampled two new monitoring wells, MW-1 and MW-3, which are immediately upgradient and downgradient of the former CKD disposal area. ERM-West also collected ground water samples from the wells originally sampled for the FIT report.

Based on the ground water analyses from samples collected by ERM-West (Table 3-2 and Appendix D), the disposal activities at the RCC site have not significantly impacted ground water. In summary, the results of ground water sampling showed that the concentrations of metals and other constituents were not elevated at the quarry area with respect to upgradient and downgradient wells, and further were not above drinking water action limits. The data collected by ERM-West confirms that concentrations of trace metals of any health

concern are below EPA maximum contaminant levels (MCLs) even in MW-1, MW-3, and the Yeager Construction Company (YCC) well.

Based on ERM-West's technical review of the information presented in the FIT Report and the data collected during ERM-West's field investigation, the FIT Report conclusions and summary of significant HRS factors are not supported by site conditions. The RCC site does not warrant further action by the EPA under CERCLA for the following reasons:

- The data do not support the FIT Report conclusion that ground water has been impacted by disposal of CKD and basic brick.

- Chromium concentrations in the ground water and surface water samples collected at the RCC facility and in the ground water from the YCC well are well below the drinking water standard of 50 µg/l (Tables 3-1 and 3-2) and may be attributable to natural conditions. The fact that no chromium was detected in the monitoring wells directly upgradient (MW-1) and downgradient (MW-3) of the CKD disposal areas supports this conclusion and confirms that the disposal has not impacted the ground water in the river alluvium.

- The YCC well may not be directly downgradient of the CKD disposal areas based on the hydrologic interpretation by Rowe as shown on Figure 2-5 MW-3 is directly downgradient and shows no impact by chromium (Table 3-2).

- The volume of basic (refractory) brick containing hexavalent chromium that was disposed of in the quarries was extremely small (less than 0.02%) compared to the large volume of CKD. Due to the property of CKD and cement to hydrate in the presence of water and to neutralize acid, the potential to leach trace metals from CKD or from basic brick codisposed with CKD is minimal

- The closest operating downgradient public water supply wells are 3.75 to 4 miles away in the river alluvium and are not likely to be impacted by the CKD disposal since the proximal wells in the alluvium (MW-1, MW-3 and the YCC well) show no impact.

SECTION 1

1.0 INTRODUCTION

The Riverside Cement Company (RCC) Crestmore Facility is owned and operated by RCC. The facility, as indicated in Figure 1-1, is located approximately 2.5 miles south of Interstate 10, and south of the City of Crestmore in Riverside County (Township 2 West, Range 5 West, Sections 2 and 3, San Bernardino Base Line and Meridian)

The United States Environmental Protection Agency, Region IX (EPA) issued a Field Investigation Team (FIT) report in September 1990 which recommended that a further investigation be performed at the Crestmore facility, which would be considered a Listing Site Investigation (LSI) The primary basis for this recommendation was the conclusion that disposal operations at the RCC site had adversely impacted ground water with chromium. ERM-West, Inc. (ERM-West) has reviewed the FIT Report and, after further analysis and extensive hydrogeological studies, has found significant differences in the technical analyses, the underlying assumptions, and the resulting conclusions Our technical evaluation of the FIT Report is presented below and demonstrates that the disposal operations have had no significant impact on ground water

1.1 EPA Contractor Activities

On August 11, 1989, personnel from Ecology and Environment, Inc. (E&E), the EPA contractor, met with facility representatives from RCC and toured the Crestmore Plant (Figure 1-1). This visit was the Screening Site Inspection (SSI) at RCC's Crestmore Plant. The SSI was conducted under the authority of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA).

The FIT collected soil and ground water samples during the second visit to the plant on May 30, 1990. A report summarizing the findings of the FIT was issued on September 30, 1990. The important findings of the FIT Report were the following:

- The predominant waste stream from the cement manufacturing operations was cement kiln dust (CKD);

- A minor waste stream was waste refractory brick containing 10% hexavalent chromium. Approximately 48 cubic yards of this brick was codisposed with 250,015 tons of CKD between 1955 and 1979; and

- Ground water has apparently been impacted by the facility

The EPA recommendation based on the FIT Report was to perform a further site investigation at RCC's Crestmore facility within the Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS). The primary technical basis for this decision was the conclusion that ground water was impacted by the CKD disposal.

1.2 Focus of Technical Evaluation

This technical evaluation concentrates on the hydrogeology and potential impacts to ground water. In developing this evaluation, ERM-West reviewed the following information in addition to that presented in the FIT Report.

- Unpublished mine dewatering and ground water reports on the Crestmore Mine;

- Boring logs of diamond drill holes, mine dewatering wells and ground water wells in the immediate vicinity of the mine;

- Historical mining and water handling plans;

- Correspondence with the Santa Ana Regional Water Quality Control Board (RWQCB); and

- Ground water and surface water chemical analyses from Crestmore Lake, the Commercial Quarry and ground water wells in the area.

Based on the review of available data, ERM-West installed three new monitoring wells around the CKD disposal areas. ERM-West sampled two of the new monitoring wells and several key ground water wells in the area (see Section 3).

1.3 Generation and Disposal of CKD and Basic Brick

During the operation of the kilns, off-specification materials were generated in the form of CKD, raw feed materials and cement. Refractory brick in the cement kilns was physically abraded at high

temperatures by the clinker moving across the surface The brick was replaced when it was so thin (2-3 inches) that insulation protection to the outer steel shell was compromised. The approximately 48 cubic yards of refractory (basic) brick that were codisposed with approximately 250,000 tons of CKD were normally small fragments.

Figure 1-2 shows the disposal areas for CKD at the Crestmore Plant. In the three Crestmore Plant disposal areas (Commercial Quarry, Wet Weather Quarry and Crestmore Lake) the CKD was disposed of along the edges of steeply mined areas. The disposal area boundaries are modified from Figure 2-2 in the FIT Report to reflect the fact that nearly all of the CKD and raw feed adjacent to the Commercial Quarry was recovered and used as a mill or kiln feed supplement.

1.3.1 Wet Weather Quarry

The Wet Weather Quarry (Figure 1-2) was the main CKD disposal area. The CKD ranges in thickness from two feet to greater than 60 feet. RCC last used this disposal area in 1990 when they ceased disposal and has since capped and covered the CKD on site A closure plan for this disposal area has been submitted to the Santa Ana Regional Water Quality Control Board.

After the available CKD at the Commercial Quarry was exhausted, CKD and off-specification cement was recovered for mill and kiln feed supplement from the west central portion of the Wet Weather Quarry. This area was chosen because of accessibility to trucks and front-end loaders Recovery of CKD was halted in this area in 1987.

1.3.2 Commercial Quarry

The Commercial Quarry (Figure 1-2) was a secondary CKD disposal area used primarily during the 1960s The Commercial Quarry was mined again in the 1970s, and the majority of the CKD was removed Nearly all of the remaining CKD was recovered in the late 1980s for mill or kiln feed supplement. The disposal area shown on Figure 1-2 represents the area where only traces of CKD are found.

Limestone crops out along the western edge of the Commercial Quarry, and the limestone/alluvium contact is present on the western edge of the excavated area. Mining records indicate that a pocket of limestone was planned to be mined out to an approximate elevation of 790 feet on the west side of the excavation. This mined out area is now partially covered by water and is referred to as Sky Blue Pond.

1.3.3 North Side of Crestmore Mine

The north side of the Crestmore Mine was not designated as a disposal area for CKD. Some spillage may have occurred in this area from trucks transporting CKD to the Wet Weather Quarry, or CKD may have been temporarily stored in this area prior to disposal. The small amount of CKD which appears to be present on the slope at the north end of the Crestmore Mine was probably pushed over the slope by heavy equipment when this area was leveled for storage of clay, limestone and other raw materials.

1.4 Chemical Analyses and Properties of CKD

Metals analyses of CKD were summarized in the FIT Report in Tables 5-1 (page 5-2) and 5-5 (page 5-8). These analyses demonstrated that CKD is not a hazardous waste under total or leachable metals tests. However, the FIT Report tables do not compare CKD metals concentrations with similar results from the background soil sample BD-1 (FIT Report, Appendix D, Table 1A in the ICF Technology August 3, 1990 laboratory report).

Table 1-1 summarizes the trace metals concentrations in CKD from the data presented in the FIT Report and total threshold limit concentration (TTLC) waste evaluation criteria. Table 1-1 demonstrates that the concentrations of trace metals in the background sample exceeds those in the CKD sample by the following percentages:

- Aluminum (by 23.5%)
- Chromium (by 69.0%)
- Nickel (by 27 5%)
- Vanadium (by 820.4%)

The majority of the soil in the area is derived from the natural processes of mechanical and chemical breakdown of the granitic and metasedimentary bedrock present at the surface. CKD generated at the Crestmore Plant resulted from processing of metamorphosed limestone and related granitic rocks that were mined from the same bedrock terrain. The presence of these metals in the background sample at concentrations exceeding those in CKD is therefore not surprising.

The concentrations of some trace metals in CKD are higher relative to the concentrations in background sample BD-1. This is due to the fact that the raw materials used in the kiln process (i.e., on-site

Table 1-1

COMPARISON OF CKD WITH BACKGROUND SOIL TRACE METALS CONCENTRATIONS, TOTAL AND SOLUABLE THRESHOLD LIMIT CONCENTRATIONS

Metal	Total Metals in Background Soil Sample BD-1 (mg/kg)	Total Metals in CKD (mg/kg)	TTLC* (mg/kg)	Soluable Metals CKD (mg/L)	STLC** (mg/L)
Aluminum	12,600	10,200	none	17 30	none
Arsenic	3 60	3 30	500	0 0098	5
Barium	112	529	10,000	0 419	100
Cadium	<0 21	1 70	100	0 006	100
Chromium	12	7 10	2,500***	0 195	560***
Copper	10	2	2500	0 059	25
Iron	17,500	1,340	none	5 93	none
Lead	16 80	96 40	1,000	0 012	5
Manganese	336	38	none	1 61	none
Nickel	8 80	6 90	2,000	0 341	20
Selenium	<0 6	0 91	100	0 0332	1
Vanadium	44 30	5 40	2,400	0 194	24

* Total Threshhold Limit Concentration

** Soluble Threshold Limit Concentration

*** TTLC for Hexavalent Chromium is 500 mg/kg, STLC for Hexavalent Chromium is 5 mg/kg

limestone and off-site clays, sands, etc.) are, in many cases, totally unlike the background material as far as trace metals are concerned. Even though some of the metals are higher in concentration than in the background sample, all of the metals concentrations in the CKD are less than 10% of the applicable TTLC

Since CKD is a calcined material (containing silicates and oxides), water that comes in contact with the extremely fine-grained CKD causes the CKD to form a cement-like mass. Based on this property, CKD naturally binds water that comes in contact with it and creates a barrier to further water penetration.

1.5 Other Factors

In the following sections, the factors that affect E&E's assessment of the HRS factors are presented. The complex hydrogeology of the site is presented in Section 2. Ground water chemistry is discussed in Section 3 with particular emphasis on the sample collection performed by E&E and later by ERM-West, Inc. The conclusions of the technical evaluation are summarized in Section 4.

SECTION 2

2.0 GEOLOGY AND HYDROGEOLOGY

During the course of aboveground and underground mining operations at the Crestmore Plant, a large amount of information has been compiled concerning geology and ground water. This research was conducted because the flow of ground water into the open quarry areas and Crestmore Mine directly affected the feasibility of mining and cement production.

The majority of the data was organized and reported in 1928 by W P Rowe and in the 1950s by W. P. Rowe and Son. The water level data used in interpreting the hydrogeology was based on numerous small diameter diamond drill holes completed in the alluvium and bedrock and on mine dewatering wells.

2.1 Geology and Hydrogeology of the Crestmore Plant Area

Plate I shows the surface geology of the eastern portion of the Jurupa Mountains, including the Jensen Quarry and Crestmore Mine. The Crestmore Mine is located in the east central portion of the map with mine coordinates superimposed over the bedrock exposure. The Crestmore facility is located in an area which constitutes an isolated extension of the Jurupa Mountains surrounded by alluvial deposits. The Jurupa Mountains consist of granitic bedrock containing isolated metamorphosed limestone units, including the exceptionally high-quality Chino, Wet Weather and Commercial Limestone deposits at the Crestmore facility.

Figure 2-1 shows the surface geology at the Crestmore facility that existed in 1930 prior to extensive development of the Wet Weather and Commercial Quarries (Daly, 1931). Figure 2-1 shows a slightly larger exposed area of bedrock compared to Plate I because the exposure of the Chino Limestone in the Crestmore mine workings is included in the detailed geologic map. Ground water occurs in three distinct hydrologic units at the Crestmore Plant:

- Santa Ana River Alluvium;
- Wet Weather and Commercial (upper) Limestone; and
- Chino (lower) Limestone

Figures 2-2, 2-3 and 2-4 are cross-sections (located on Figure 2-1) that show the stratigraphic relationships of these hydrologic units.

The Chino Limestone originally cropped out where the Crestmore Mine is located (Figure 1-2). Since this limestone was of exceptionally high quality, two detailed dewatering feasibility studies were conducted by W.P. Rowe in 1928 and 1950. These studies involved detailed geologic interpretation of the numerous core holes in the area, installation of new wells, pump tests and large scale laboratory models.

2.2 Review of Historical Studies for Mine Dewatering Activities

W P Rowe (1928) demonstrated in his studies that the quartz diorite layers (granite) above and below the Chino Limestone acted as confining layers (Figure 2-2). Only a small portion of the Chino Limestone comes into contact with alluvial deposits (Figure 2-5 and cross-sections 2-2, 2-3, 2-4) of the Santa Ana River Inflow to the Chino Limestone from the alluvial deposits is extremely limited due to clay layers in the lower portion of the alluvium and natural clay seals within the cracks and fissures along the Chino Limestone-alluvium contact.

The limestone in the Wet Weather and Commercial Quarries (Figure 2-5) is in contact with the alluvium over a wide area east of the outcrop as shown on Figure 2-1. Figure 2-5 presents Rowe's 1928 interpretation of ground water levels prior to large volume pumping of ground water to dewater the Crestmore Mine. Water levels in wells screened in the two upper limestone units (Wet Weather and Commercial) were identical in elevation and demonstrated that the shallow limestone was in direct hydraulic contact with the river alluvium. In contrast the deeper limestone unit (Chino Limestone) was demonstrated to be effectively isolated from the river alluvium because wells screened in the Chino Limestone vary in elevation only a few hundredths of a foot over nearly the same map area (well elevation numbers in parentheses in Figure 2-5).

The northern portion of Figure 2-5 indicates the alluvial water level is approximately 9 feet higher than the Chino water level at drill hole 20. Rowe concluded that the vast majority of the water in the Chino Limestone originated from direct percolation of rainwater at the mine and influx from a deep source somewhere below the Santa Ana River to the east based on his 1928 observations of well water temperature measurements and of aquifer response to precipitation events. During the course of dewatering the mine between 1928 and 1950, the influx of water from the northern Chino Limestone contact with the alluvium was minor Water levels in alluvium wells dropped approximately 10 feet during the initial stages of mine

dewatering Subsequent lowering of the Chino Limestone water table had no further impact on alluvial water levels.

By 1950, underground mining had been successfully accomplished to an elevation of 660 feet above sea level or approximately 165 feet below the water table in the river alluvium. Using water quality data obtained from several wells and the mine sump combined with water balance calculations, W.P. Rowe (1950) concluded that inflow to the mine from the Santa Ana River alluvium was approximately 400 gallons per minute (gpm) The southern contact of the Chino Limestone with the alluvium covers a much smaller area than the northern contact (Figure 2-5) and represents the area over which the limestone aquifer discharged to the alluvium prior to mine dewatering activities. Based on sulfate ion concentrations, W.P Rowe (1950) concluded that the southern contact of the Chino Limestone to the alluvium provided only 30 gpm of the calculated total alluvium contribution of 400 gpm to the Chino Limestone during mine dewatering.

During mining, the upper limestone unit (Figure 2-1) was considered to be two separate limestones. The Wet Weather and Commercial Limestones are actually part of a continuous limestone unit in cross-section (Figure 2-4) that were partially separated at the original surface outcrops by a lobe of granite. The lobe of granite is shown on Figure 2-1 as the protuberance between WD8 and diamond drill hole 32.

According to W P Rowe (1928), the Commercial Limestone was more dense and massive, analogous to the structure of the Chino Limestone but the Wet Weather Limestone was honeycombed and fissured. Hydraulic connection of lower portions of the wet weather limestone and the alluvium were inferred to be very strong, but since many of the fractures and fissures were filled with clay, the hydraulic connection was restricted. and W.P Rowe noted a small decrease in gallons pumped per foot of drawdown in the Wet Weather Limestone as drawdown in the pumping well increased. Dewatering efforts at the Wet Weather Quarry confirmed that ground water influx to the quarry decreased as the water table was lowered. The sealing properties of the clay layers in the alluvium above the contact with the Wet Weather Limestone allowed mining down to an elevation of approximately 780 feet.

2.3 Hydrogeologic Effect of Final Mining Activities and Mine Closure

Aboveground and underground mining activities at the Crestmore facility have affected the hydrogeology of the Chino Limestone, the Wet Weather Limestone and the Santa Ana River alluvium. Overall,

the pre-mining primary sources of water to these aquifers have not changed. The following sections describe the current sources of water and hydrologic conditions for these aquifers.

2.3.1 Chino Limestone

In 1985, a 12-foot diameter drift approximately 200 feet above sea level was cut across from the deeper limestone unit (Chino Limestone) in the Crestmore Mine to the upper limestone unit that was mined in the Wet Weather and Commercial Quarries. The drift was installed because mining in the Chino Limestone had reached to approximately 65 feet below sea level, and mining at deeper levels was not feasible.

Unfortunately after the drift was cut, water from the alluvium and the upper limestone unit began to flood the Crestmore Mine through the drift. An attempt was made to seal the drift, but the seal was only partially successful, and the mine was allowed to flood to the present water level in Crestmore Lake.

Since the drift was not completely sealed between the upper and lower limestone units, the sources of recharge for Crestmore Lake and the Chino Limestone water used on site from Well 88-1 (formerly Chino Test Well #1) now include:

- Precipitation;
- Northern Chino Limestone contact with the river alluvium;
- Water from within the Chino Limestone aquifer deeper to the east; and
- Drift to the Wet Weather Limestone at 220 feet above sea level.

The relative contributions from these sources to balance the water withdrawal in production well 88-1 vary seasonally The southern contact of the Chino Limestone with the river alluvium (Figure 2-5) has probably resumed its pre-1930s role as a minor ground water discharge point to the river alluvium. This southern contact is certainly less efficient in allowing discharge than in pre-mining conditions because of efforts to seal off this zone during mining to reduce pumping costs.

The contribution of ground water from the upper limestone unit and the river alluvium to the Chino Limestone through the drift to the upper limestone is probably minor because of the following factors:

- Efforts to seal the drift,

- Historically higher water levels in the Chino Limestone compared to the Commercial and Wet Weather Limestone since the hydrologic conditions have reverted back to pre-mining conditions;

- Greater storage capacity of the Chino Limestone created by the underground mining activities; and

- Easier flow path through the Chino Limestone from deeper levels due to grouting operations to control water inflow in the upper areas of the mine during mining operations.

2.3.2 Wet Weather Limestone

Surface mining of the Wet Weather Limestone in both the Wet Weather and Commercial Quarries relied on the partial sealing effect of degraded granite overlying the limestone to the east and the presence of a clayey zone in the lower portion of the river alluvium. No grouting was reportedly required to enhance dewatering activities. The sources for water in the Wet Weather Limestone are therefore the same as before mining activities began and include the following·

- Precipitation;

- Wet Weather Limestone contact with the river alluvium (partially sealed by degraded granite and clay); and

- Water from within the Wet Weather Limestone aquifer deeper to the east.

Although the relative contributions of these sources vary seasonally, the contact with the alluvium provides the primary source for ground water and the surface water in the Commercial Quarry as demonstrated on Figure 2-5

2.3.3 Santa Ana River Alluvium

Aboveground and underground mining activities have affected the sources of water to the alluvium over time. Some alluvium was directly excavated during surface mining, but the majority of this material was above the historic water table The sources of water to the alluvium include the following:

- Precipitation;

- Upgradient ground water from within the Santa Ana River alluvium to the north and northeast;

- Southeastern contact of the Wet Weather Limestone in the Commercial Quarry with the alluvium;

- Surface recharge from the Riverside Irrigation Canal southwest of the Crestmore Mine. A significant portion of the water in this canal in the past was treated water from the Chino Limestone during active underground mining; and

- Southern Chino Limestone contact with the river alluvium (partially sealed with grout during active underground mining).

The base flow of ground water and precipitation are the primary sources for ground water in the Santa Ana River alluvium in the area. The additional sources may significantly contribute to the alluvium ground water only in the immediate area where these sources are present.

2.4 Summary

The hydrogeology at and in the vicinity of the Crestmore plant is extremely complex. An understanding of that hydrogeology is essential to understanding the source of the ground water in the nearby wells and of the surface water found in the Sky Blue Pond and Crestmore Lake.

Based on the hydrogeology discussed in this section, the El Rivino Country Club well, the Yeager Construction Company well, well 60-1, MW-1 and MW-3 are all installed in the alluvium However, although the Yeager Construction Company well appears to be generally downgradient of the Crestmore facility (particularly Well 60-1), it is probably not directly downgradient of wells MW-1 and MW-3 or the former kiln dust disposal areas. Surface water in Sky Blue Pond is comprised of alluvium water and water from the upper limestone unit.

Well 88-1 draws primarily from the deep limestone unit (Chino Limestone) with minor contributions from the alluvium and upper limestone unit through the drift. Similarly, water in Crestmore Lake (the flooded mine) primarily consists of water from the deep limestone unit. The Crestmore Heights water well is screened in deep bedrock, but is not screened in either the deep limestone unit, the upper limestone unit, or the alluvium.

SECTION 3

3.0 GROUND WATER CHEMISTRY

The evidence cited in the FIT Report was primarily used to support the assertion that a release to ground water was observed (FIT Report, page 8-1). Before further action is undertaken by EPA, a thorough technical evaluation should be made to determine whether a basis exists substantiating that an impact has occurred or is occurring on the ground water. An understanding of the ground water (and surface water) chemistry and of the hydrogeology that controls ground water flow, is therefore critical to evaluating whether the site should remain in the EPA CERCLA program.

3.1 Available Data Prior to EPA Site Screening Investigation

E&E reviewed the data from the public water supply wells in the vicinity of the Crestmore Mine. The closest well is operated by the Crestmore Heights Mutual Water Company, which serves approximately 100 households. This well, which is located near the entrance to the cement plant on El Rivino Road (Figure 3-1), was installed in bedrock but not in the Chino Limestone. Ground water from this well is therefore not likely to be in hydraulic connection with the Chino Limestone. Although E&E assumed that this well could be impacted, ground water gradients clearly demonstrate that the well is upgradient. This well could not therefore be impacted by activities at the Crestmore Plant.

3.1.1 Well Sampling Data

RCC voluntarily sampled the on-site wells in 1976 and has sampled well 60-1 every year since 1984 because this water is used for industrial purposes on site. In the FIT Report (Table 5-2 on page 5-5 and Table 5-3 on page 5-6), chromium data are presented which indicate elevated chromium concentrations in 1976. No details are available on how the ground water samples were collected or whether the water collected in 1976 was filtered. The analyses for total chromium were high enough to justify subsequent analytical testing for hexavalent chromium, the valence state for which the federal maximum contaminant level (MCL) was set at 0.05 mg/l This subsequent sampling showed concentrations of hexavalent chromium below the MCL. The hexavalent chromium is normally a

low percentage of the total chromium. In this case, the hexavalent chromium comprised 33% of the total chromium concentration

Since 1984, RCC has sampled well 60-1, and well 88-1 has been sampled since 1988. Total chromium concentrations have remained at or below 0.02 mg/l over that entire period of time. The 1976 analyses for total chromium therefore represent an anomaly that has not been repeated.

The FIT Report states that chromium was detected in plant wastewater in 1973. The chromium detected at that time was due to an unusual one-time release to the facility water treatment unit of recirculated cooling water treated with a chromate corrosion inhibitor. The outfall for the water treatment plant is located on the Riverside Irrigation Canal southwest of the Crestmore Mine. This outfall location is definitely downgradient of alluvial well 60-1, and consequently the 1973 chromium discharge from the wastewater treatment plant would not have impacted this well.

3.1.2 Surface Water Sampling Data

Several recent water samples were collected from Sky Blue Pond, which is the standing water in the Commercial Quarry, and from Crestmore Lake (Appendix B). Although in close proximity to the former kiln dust disposal areas, these analyses have shown similar chromium concentrations to analytical results from water samples collected from the wells and are well below drinking water action levels. In most cases, the chromium test results are either below the minimum detection limit (0.01 mg/l) or barely above that concentration.

The pH and general water chemistry from Crestmore Lake shows strong similarity to the water chemistry from ground water samples collected from Well 88-1, which draws water directly from the flooded Crestmore Mine workings. The pH and general water chemistry from Sky Blue Pond show some differences from the general water chemistry of ground water samples collected from alluvium wells, but the concentration of chromium is also well below drinking water action levels.

3.2 Data Generated During the EPA Investigation

During the two site visits associated with the SSI, E&E collected samples of CKD and background soil, plus water samples from two wells: one they assumed was an upgradient irrigation well in the river alluvium at the El Rivino Country Club (ERCC) and the other

they assumed was a downgradient well in the alluvium used for truck washing at the Yeager Construction Company (YCC) site Figure 3-1 shows the location of these wells.

3.2.1 Ground Water Well Data Presented in the FIT Report

Table 3-1 summarizes the complete results from the FIT Report for the metals discussed in the FIT Report plus a few other important metals. As stated in Section 3.2.1, no field observations were made concerning the appearance of the ground water samples. These analyses are therefore considered for the purpose of this discussion to represent total metal concentration in the sample collected and may therefore include trace metals leached from sediment during sample preservation.

In the FIT Report (Table 5-4, page 5-7), E&E chose to present selected analyses for aluminum, chromium and manganese Arsenic and copper concentrations are actually slightly lower in the YCC well than in the ERCC well, and barium and iron are higher in the YCC well compared to the ERCC well.

Chromium concentrations were the critical item presented on Table 5-4 in the FIT Report. Table 3-1 shows the chromium concentrations from all water samples analyzed as part of the SSI. Chromium concentrations in the ground water samples from the YCC well are slightly higher than in the ERCC well, but the difference in concentrations is not significant and does not demonstrate that RCC has impacted ground water to the extent that any further actions (including investigation) are required. The slightly higher concentrations of 10 µg/l could be attributable to any combination of the following circumstances:

- Impact from local alluvial aquifer recharge by YCC use of truck wash water for dust control;
- Impact from gravel pit operations adjacent to the YCC site,
- Leaching of chromium from sediment in the unfiltered water sample as a result of field sample preservation with nitric acid; and
- Natural local ground water conditions.

In the May 1990 E&E Sampling Plan (page 3-7), the potential for on-site wastewater at the YCC site to adversely impact the ground water collected from the downgradient well was discussed and dismissed. ERM-West concludes that this potential should not be dismissed. All evidence must be considered for the investigation and its conclusions to be considered technically thorough and sound. The wastewater

TABLE 3-1

SELECTED ANALYTICAL RESULTS FROM EPA GROUND WATER SAMPLES

Parameter	ERCC (1)	YCC (2)	Dup YCC	Confirmation (3)			Avg ERCC	Avg YCC
				ERCC	YCC	YCC Dup		
Aluminum	26 9 (4)	109	155				26 9 (4)	132
Arsenic	3 4	2 5	<2				3 4	<2 2
Barium	54 5	80 5	76 9				54 5	78 7
Cadium	<1	<1	1 2	<0 1	<0 1	<0 1	<0 6	<0 6
Chromium	6 9	16 3	12 9	3 8	19 4	12 2	5 4	15 2
Copper	8 7	<5	5 6				8 7	<5 3
Iron	54 1	719	614				54 1	667
Lead	<2	<2	<2				<2	<2
Manganese	<1	34 4	26 5				<1	30 4
Nickel	<5	<5	<5				<5	<5
Selenium	<6	3 9	7 6				<6	5 8

1 El Rivino Country Club Well
2 Yeager Construction Company Well
3 Performed by Keystone Lab - Houston
4 All analyses are in µg/l

that is generated from the truck wash (located above the well) comes in contact with grease, oils and hydraulic fluids in addition to finished asphalt product. Trace heavy metals are associated with these products and could account for some increased metal concentrations detected in ground water at the YCC site.

Regardless of source, the highest concentration of chromium detected in the YCC well (less than 20 µg/l), is considerably lower than the chromium MCL of 50 µg/l.

Aluminum, barium, manganese and iron are also present at higher concentrations in the YCC well compared to the ERCC well (Table 3-1), but these higher concentrations could all be attributable to one or any combination of the sources listed above. Indeed the concentrations of these metals were higher in background soil sample BD-1 compared to the two samples of CKD collected by the FIT. E&E assumed that the YCC well was downgradient and being impacted by CKD. However, a comparison of the chromium test results for the YCC well, 60-1 and 88-1 (FIT report Table 5-2 page 5-5) indicates that no leaching of chromium from the CKD has occurred since all of the chromium test results are in the same range.

In a telephone conversation on September 7, 1990 (Appendix A to the FIT Report), E&E reported that Mr. Adelson at the RWQCB stated that the concentrations were not high enough to warrant action by the RWQCB at the RCC facility. Mr. Adelson also noted that the trace metals in the YCC and ERCC wells were inconsequential and could be attributable to natural ground water conditions.

3.2.2 CKD Leachability Testing

To evaluate the potential for CKD to impact ground water, E&E requested that S&S analyze the CKD samples using the California Department of Health Services (DHS) WET procedure, which is analogous to the federal EP Toxicity analysis. The results were presented on Table 5-5 (page 5-8) in the FIT Report, and other metals from the E&E testing are combined in Table 1-1 to show leachability tendencies. The units for both Total and Leachable metals have been changed to mg/L so that an easier comparison can be made

The extraction procedure demonstrated that an extremely small (5% or less) of the total metals were leachable and all were considerably below the STLC limits. This WET procedure was developed by the DHS to simulate the leachability of metals under general landfill conditions. At the RCC site, the CKD (and basic brick) is codisposed with off-specification cement, and the entire mass of disposed materials has a high potential for acid neutralization. In addition, the materials naturally harden to a cement-like mass in the presence of water, which would further reduce the leachability of the

materials. Under the conditions of disposal, in-situ acid leaching of the disposed materials is extremely unlikely, and the STLC concentrations presented in Table 1-1, while very low in absolute terms, overstate what the actual leachability of CKD would be.

3.3 Collection of Recent Ground Water Data

In June 1991, ERM-West installed three monitoring wells in the river alluvium on the east side of the RCC facility as shown on Figures 1-2 and 3-2. Each well was installed for the following purpose

- MW-1 was installed upgradient of the disposal areas in the Wet Weather and Commercial Quarries.
- MW-2 was installed adjacent to the southeastern Wet Weather Quarry disposal area. After review of the hydrogeology, it was decided that MW-2 would not be the best representative upgradient or downgradient well location. MW-1 and MW-3 were determined to be the best choices for upgradient or down gradient wells, respectively.
- MW-3 was installed downgradient of the disposal areas in the Wet Weather and Commercial Quarries.

ERM-West also collected samples from the ERCC and YCC wells for comparison with analytical results from the FIT sampling efforts and from the new monitoring wells installed as part of this investigation.

3.3.1 Installation and Sampling Procedures

Well installation and sampling procedures are presented in Appendix C. The complete analytical results from the ground water sampling performed by ERM-West is included in Appendix D. Since MW-2 was not appropriately located upgradient or down-gradient, no water samples were collected from this well. The QA/QC procedures followed during ERM-West's investigation are summarized in Appendix E.

3.3.2 Analytical Results

Table 3-2 summarizes selected data from the analytical results of ground water samples collected by ERM-West. The data presented on Table 3-2 corresponds to similar parameters on Table 3-1.

TABLE 3-2

SELECTED ANALYTICAL RESULTS

FROM GROUND WATER SAMPLES COLLECTED 6/11/91

Parameter	ERCC (1)	YCC (2)	WELL 60-1	WELL 88-1	MW-1	MW-3
Aluminum	<100	<100	<100	<100	<100	<100
Arsenic	<10	<10	<10	<10	<10	<10
Barium	56	67	86	27	62	110
Cadium	<5	<5	<5	<5	<5	<5
Chromium	<10	12	12	13	<10	<10
Copper	<10	12	<10	<10	<10	<10
Iron	<100	220	<100	310	<100	<100
Lead	<3	<3	<3	<3	4 3	<3
Manganese	<4	10	<4	<4	84	140
Selenium	<5	<5	<5	6 8	<5	<5

1 El Rivino Country Club Well
2 Yeager Construction Company Well
3 All analyses are in µg/l

The ERCC well and well 60-1 are the upgradient alluvial wells on Figure 3-1, whereas, well 88-1 primarily draws water from the lower limestone unit (Chino Limestone). Chromium, which is the metal of most interest for this site given the co-disposal of chromium bricks with the CKD, was found in almost identical concentrations in well 60-1, well 88-1, and the YCC well but was found at slightly lower concentrations in the El Rivino Country Club well This pattern suggests that the chromium concentrations in 60-1, 88-1, and the YCC wells are naturally-occurring, resulting from close contact with the bedrock (i.e., Chino limestone and granite) at the bottom of those wells.

In any event, the chromium concentrations the 60-1, 88-1, and YCC wells is not related to the former CKD disposal area since none of those wells are located downgradient from that area. Chromium concentrations in MW-1 and MW-3, which are immediately upgradient and downgradient of the former CKD disposal area, were below detection limits (as were the chromium concentrations in Sky Blue Pond and Crestmore Lake), further indicating that the former CKD disposal area is not releasing chromium into the ground water The concentrations of other metals (except barium) listed on Table 3-2 for the ERCC well and well 60-1 are below laboratory detection limits

As in the previous ground water sample analyses presented on Table 3-1, iron and manganese were higher in concentration in the YCC well compared to their concentration in the ERCC well The iron and manganese concentrations in the YCC well were less than one-third the concentrations in the sample collected in the YCC well by E&E in 1990. Since these water samples were collected toward the end of the work day when the well had been pumped all day long, the concentrations presented in Table 3-2 may more accurately report actual aquifer conditions due to more complete purging.

The water quality for all the ground water samples collected by ERM-West was good as all of the metal concentrations were considerably below the Primary Drinking Water MCL standards. The data from the new wells, as well as the existing wells, show that chromium is not being leached from the brick within the CKD or from the CKD itself. In fact, there is no data to indicate that any metals are being leached from the CKD area.

SECTION 4

4.0 EVALUATION OF GROUND WATER CONDITIONS

This section summarizes the evidence cited in the FIT Report and the ground water data collected more recently by ERM-West and presents a technical basis for evaluating the ground water data for the Crestmore facility.

4.1 FIT Report Hazard Ranking System Factors

The FIT Report (page 8-1) presented a summary of significant HRS considerations based on the results of the SSI The conclusion drawn by E&E that primarily impacts the HRS considerations was that an observed release to ground water has occurred. The most significant HRS considerations consist of the following:

- High toxicity of hexavalent chromium;
- Observed release to ground water,
- Community supply well located 0 4 miles from site, and
- Moderate ground water target population.

The following sections address these significant HRS factors raised in the FIT Report and demonstrate that the waste materials placed in the quarries have not impacted ground water in the area

4.2 Hazard Posed by CKD and Basic Brick Disposal

Based on the chemical analyses from Section 1.4, CKD does not pose a significant hazard due to metals content. The hazard is further mitigated by the properties of the CKD and codisposed off-specification cement. These materials tend to hydrate in the presence of water to form a hard and dense cement-like mass. Under natural conditions this material is relatively impermeable.

Since a maximum of 48 cubic yards basic brick was codisposed with 250,015 tons of CKD, this material is encased within the cement-like CKD and off-specification cement. The relatively small volume of

basic brick is therefore not likely to leach hexavalent chromium to ground water. The ground water analyses presented in Table 3-2 support the conclusion that an observed release to ground water did not occur and is therefore not a significant factor.

4.3 Evidence from Chemical Analysis of Ground Water and Surface Water Samples

The FIT Report states that the ground water analyses indicate an impact on ground water downgradient of the RCC site Table 3-1 summarized the ground water data from the SSI and indicated that many trace metals that are also present in CKD were not detected above the laboratory detection limits. Arsenic and copper were in fact detected at reduced concentrations in the YCC well compared to the ERCC well.

Chromium concentrations were the critical item presented on Table 3-1 Chromium concentrations in the ground water samples from the YCC well are only slightly higher than those of the ERCC well, but the difference in concentrations does not demonstrate that RCC has impacted ground water to the extent that any further actions (including investigation) are required. The net average increase in concentrations of 10 µg/l could be attributable to any combination of the following circumstances:

- Natural local ground water conditions;
- Impact from local alluvial aquifer recharge by YCC use of truck wash water for dust control;
- Impact from gravel pit operations adjacent to the YCC site; and
- Leaching of chromium from sediment in the unfiltered water sample as a result of field sample preservation with nitric acid

Regardless of source, the highest concentration of chromium detected in the YCC well was less than 20 µg/l, while the MCL for chromium in drinking water is 50 µg/l.

In addition, Mr. Mark Adelson at the CARWQCB stated that the concentrations of trace metals were inconsequential and could be attributable to natural ground water conditions. This statement provides independent technical confirmation that the downgradient concentrations of metals in Table 3-1, particularly the aluminum, chromium and manganese cited in the FIT Report as the primary evidence for ground water impact, do not constitute evidence of downgradient ground water impact. The data presented in Table 3-2 from the ground water sampling performed by ERM-West further

confirms that the concentrations of metals may be completely natural and do not support a conclusion that ground water in the alluvium has been adversely impacted by disposal of CKD.

The field investigation performed by ERM-West confirmed that existence of fill materials on the eastern side of the Wet Weather and Commercial Quarries. The investigation of previous ground water studies provided information from Rowe's field work in 1928 which indicated the presence of a fault (Figure 2-5). Based on Rowe's interpretation, the YCC well may not be directly downgradient of the CKD disposal areas due to the potential influence of the fault on the flow of ground water in the alluvium.

However, the ground water samples collected from MW-1 and MW-3 provide ground water data immediately adjacent to the main CKD disposal areas. Chromium concentrations in these wells were below the laboratory detection limit of 10 µg/l. Chromium concentrations in the YCC well and the upgradient on-site production wells from the alluvium (60-1) and Chino Limestone (88-1) were consistent at the 12-13 µg/l level and well below the 50 µg/l MCL.

The pH and general water chemistry from Crestmore Lake show strong similarity to the water chemistry from ground water samples collected from well 88-1, which draws water directly from the flooded Crestmore Mine workings. The pH and general water chemistry from Sky Blue Pond represent a mixture between Chino Limestone water from Crestmore Lake and alluvium ground water. The concentration of chromium is well below drinking water action levels in both locations, and the analytical results do not indicate any impact from disposal of CKD in these areas. This again supports the fact that an observed release to ground water did not occur and is therefore not a significant factor.

4.4 Location of Crestmore Heights Public Water Supply Well

Figure 3-1 shows the location of the Crestmore Heights water supply well. The well is located upgradient (northwest) of the RCC disposal sites. Any potential impact on ground water from the disposal of CKD and basic brick would be to the east of the Crestmore Mine based on the direction of ground water flow (as determined from the extensive records collected for mine dewatering efforts presented in Section 2). The presence of this public water supply well upgradient of the facility is therefore not a significant factor In addition this well is not completed in either the alluvium or the deep limestone unit (Chino Limestone) so that, in any event there is no hydraulic connection between that well and the Crestmore facility aquifers

4.5 Ground Water Target Population

The technical analysis by E&E (Table 5-7 on page 5-11 in the FIT Report) regarding the population statistics for the area was reasonable. As discussed in Section 4.4, the closest water supply well is upgradient of the disposal operations at the RCC site

The floodplain of the Santa Ana River is downgradient of the site. This area is zoned for industrial and agricultural use because of the potential for flooding. Due to the long agricultural history of the area, excess nitrate concentrations are a problem further downgradient of the site. On page 5-3 of the FIT Report, the two wells operated by the Rubidoux Community Service District (RCSD) approximately 3.75 miles downgradient of the RCC site are discussed without implication concerning any adverse impact from the RCC site on these wells. In the FIT Report Contact log, the RCSD reported that one of these wells was shut down in 1988 due to nitrate contamination. However, the highest nitrate concentration detected during the ERM-West's investigation was in the upgradient ERCC well, thus demonstrating that no adverse nitrate impact on ground water has occurred from the RCC operations (Appendix D).

Due to the potential for nitrate contamination, it is unlikely that any additional public water supply wells will be installed east or south of the RCC site. Since the EPA has declared the Santa Ana River a Toxic River, installation of public water supply wells in the river alluvium is even less likely. The target population downgradient of the RCC site will probably remain the same or decrease as river alluvium wells are retired due to contamination from agricultural nitrate and pesticide application or storm water and city sewer outfalls.

4.6 Summary of Key Technical Findings

Based on ERM-West's technical review of the information presented in the FIT Report and the data collected during ERM-West's field investigation, the FIT Report conclusions and summary of significant HRS factors are overstated. The RCC site does not warrant further action by the EPA under CERCLA for the following reasons:

- The data do not support the FIT Report conclusion that ground water has been impacted by disposal of CKD and basic brick. The chromium concentrations in the YCC well which serve as the primary basis for the E&E conclusions are approximately equal to the chromium levels in wells 60-1 and 88-1, and the concentrations in all three wells appear to be naturally-occurring.

- Chromium concentrations in the ground water and surface water samples collected at the RCC facility and in the ground water from the YCC well are well below the drinking water standard of 50 µg/l (Tables 3-1 and 3-2) and may be attributable to natural conditions. The fact that no chromium was detected in the monitoring wells directly upgradient (MW-1) and downgradient (MW-3) of the CKD disposal areas supports this conclusion and confirms that the disposal has not impacted the ground water in the river alluvium.

- The YCC well may not be directly downgradient of the CKD disposal areas based on the hydrologic interpretation by Rowe as shown on Figure 2-5. MW-3 is directly downgradient and shows no impact by chromium (Table 3-2).

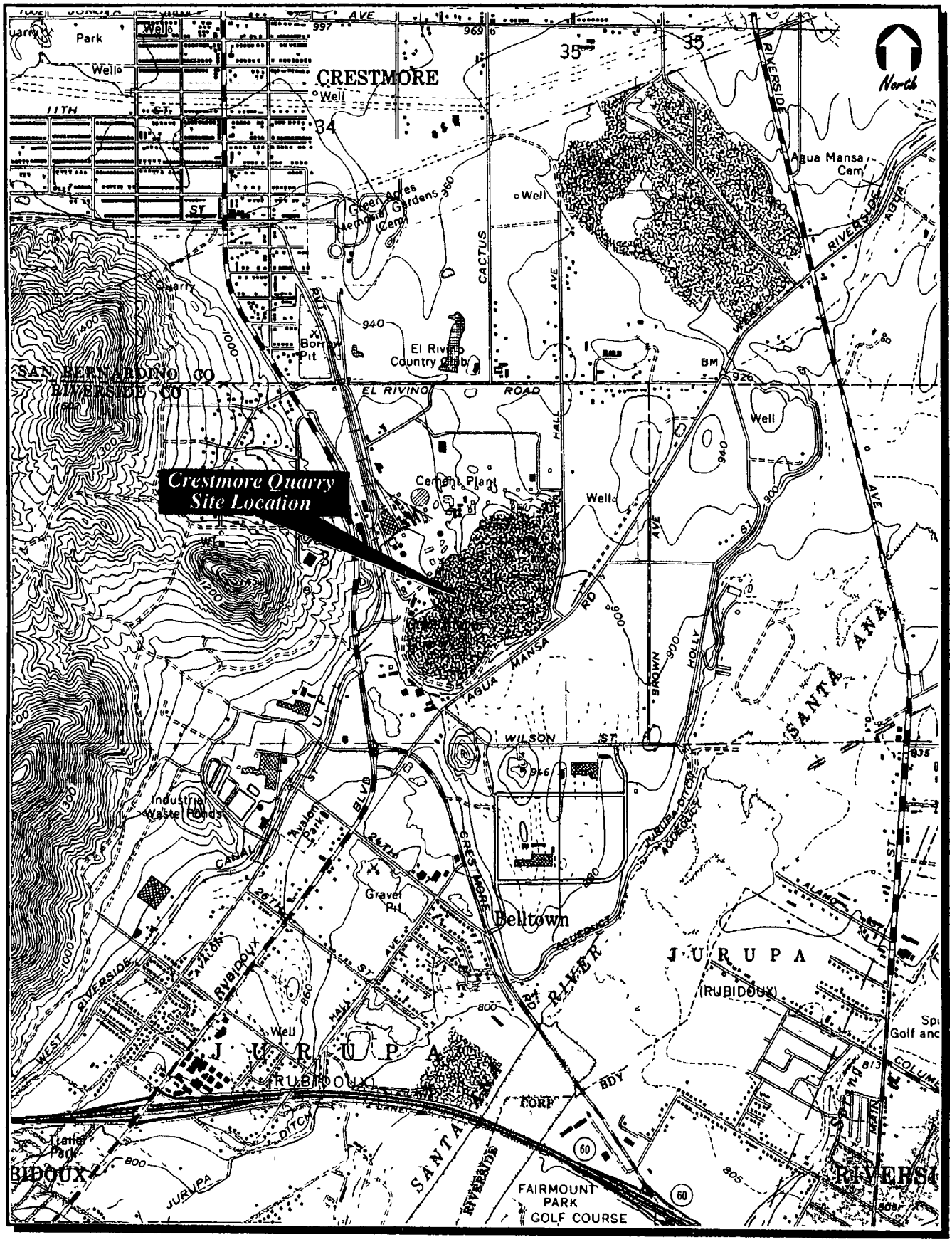
- The volume of basic (refractory) brick containing hexavalent chromium that was disposed of in the quarries was extremely small compared to the volume of CKD. Due to the property of CKD and cement to hydrate in the presence of water and to neutralize acid, the potential to leach trace metals from CKD or from basic brick codisposed with CKD is minimal.

- The one-time 0.55 mg/l chromium release from the wastewater treatment plant in 1973 could not have impacted well 60-1 (as inferred in the FIT report, page 5-5) because that well is located substantially upgradient of the treatment plant outfall.

- The closest operating downgradient public water supply wells are 3.75 to 4 miles away in the river alluvium and are not likely to be impacted by the CKD disposal since the proximal wells in the alluvium (MW-1, MW-3 and the YCC well) show no impact.

After reviewing all the existing and new technical information, ERM-West concludes that the former kiln dust disposal area at the Crestmore facility has had no impact on metal concentrations in ground water, including chromium, and recommends that EPA should close the case at Crestmore by declaring NO FURTHER ACTION.

FIGURES



1" = Approx 2000'

0 2000'

Base From USGS
7 5 Minute Topographic Map Series
Fontana and San Bernadino So ,
California Quadrangles (1980)

FIGURE 1-1
SITE LOCATION

ERM-West, Inc. 3'91
1231 10/GCF/02 08 91

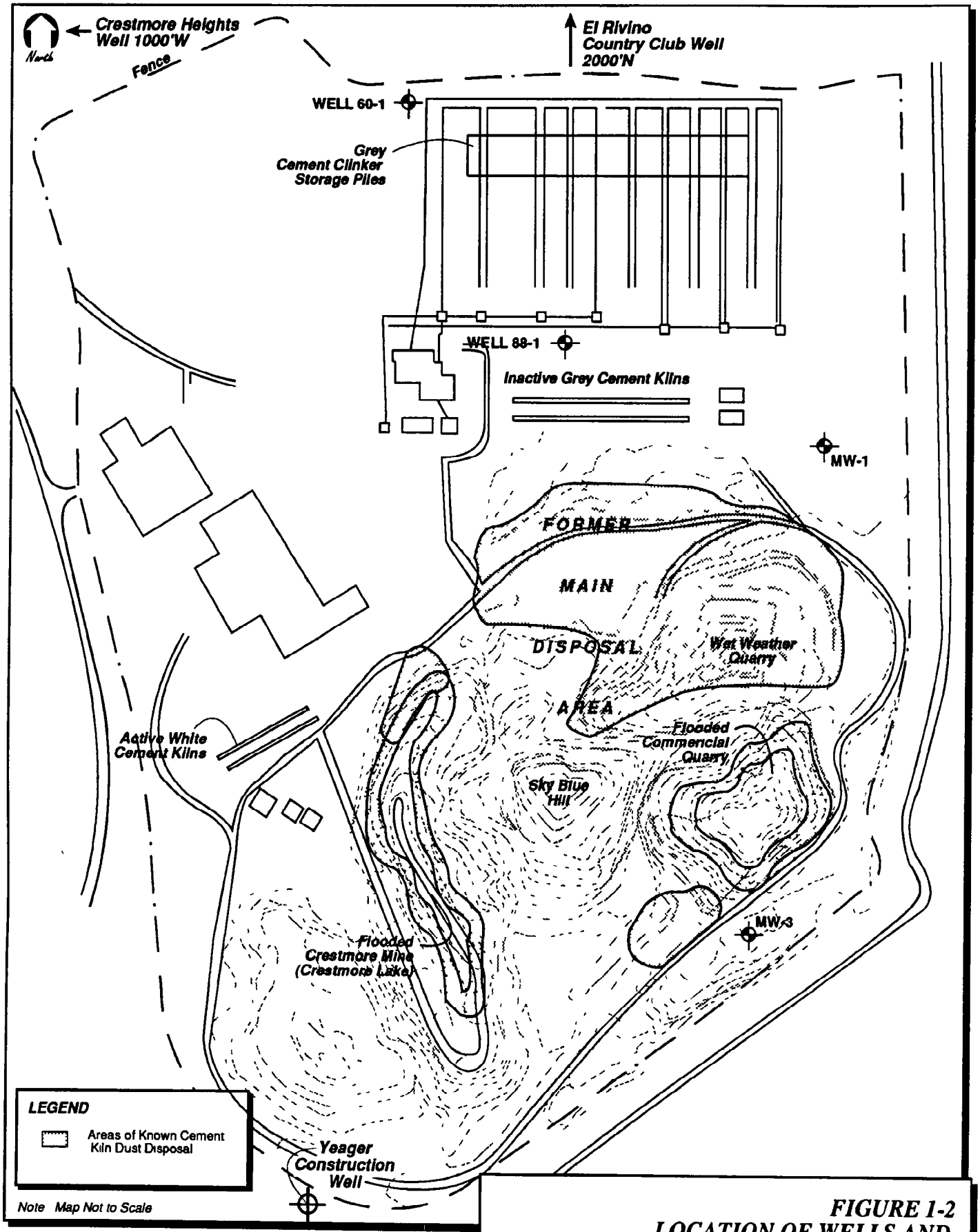
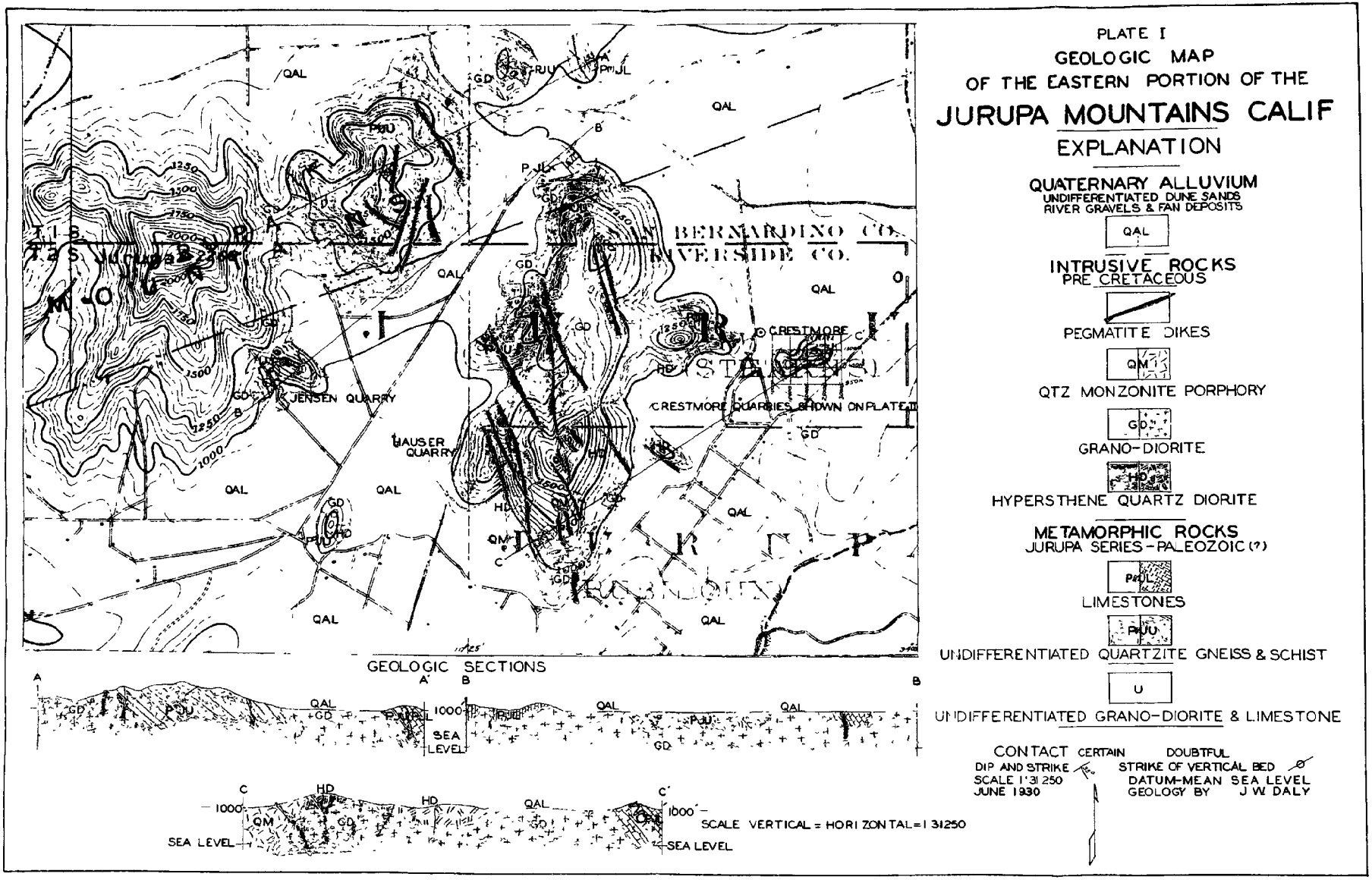
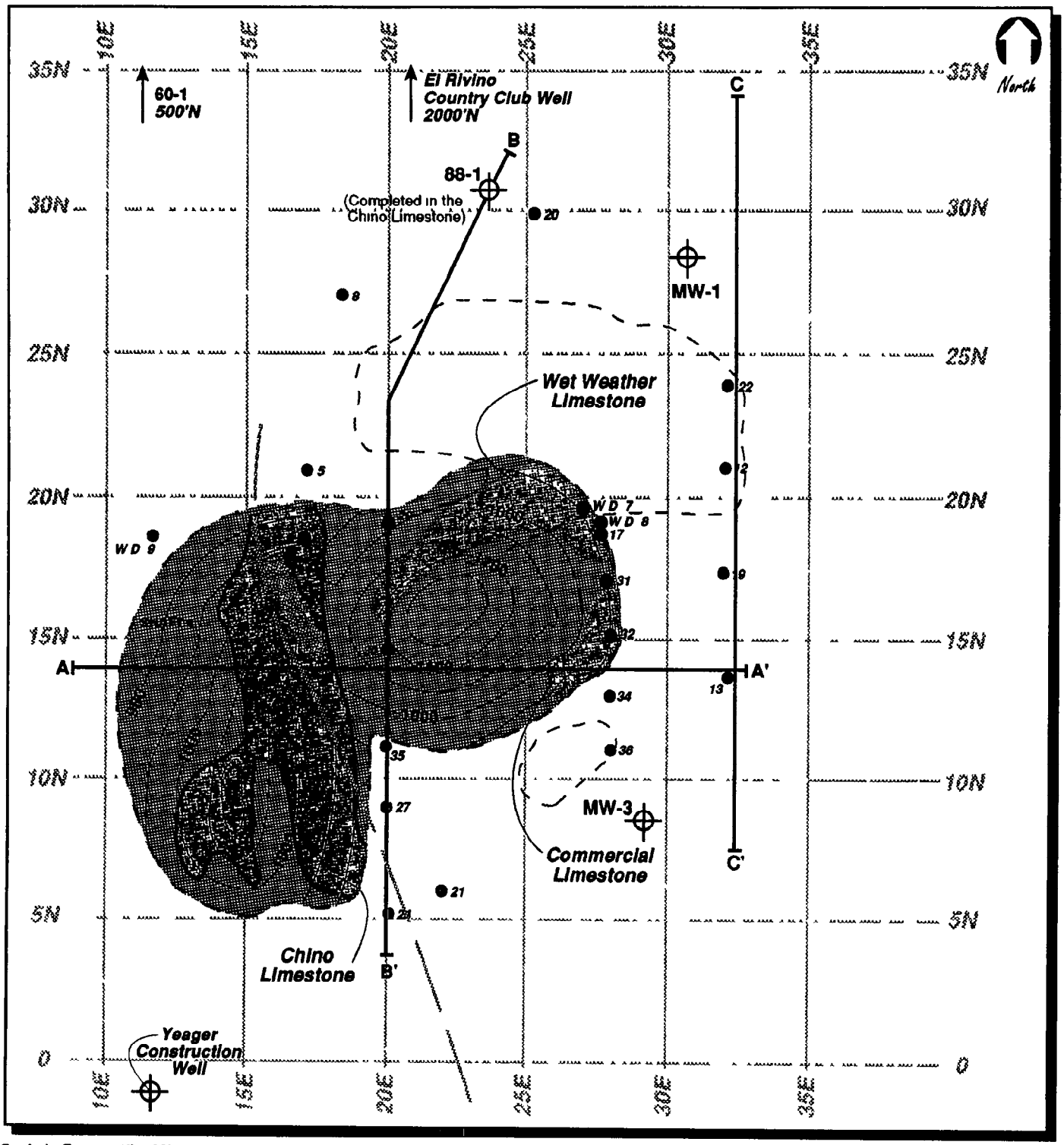


FIGURE 1-2
LOCATION OF WELLS AND
CEMENT KILN DUST DISPOSAL AREAS
RIVERSIDE CEMENT CRESTMORE PLANT
RIVERSIDE, CALIFORNIA

ERM-West, Inc 11'91
1231/DMPV/7 29 91


PLATE I
GEOLOGIC MAP
OF THE EASTERN PORTION OF THE
JURUPA MOUNTAINS CALIF
EXPLANATION
QUATERNARY ALLUVIUM
UNDIFFERENTIATED DUNE SANDS
RIVER GRAVELS & FAN DEPOSITS
QAL
INTRUSIVE ROCKS
PRE CRETACEOUS
PEGMATITE DIKES
QM
QTZ MONZONITE PORPHORY
GD
GRANO-DIORITE
HD
HYPERSTHENE QUARTZ DIORITE
METAMORPHIC ROCKS
JURUPA SERIES - PALEOZOIC (?)
PJL
LIMESTONES
PJU
UNDIFFERENTIATED QUARTZITE GNEISS & SCHIST
U
UNDIFFERENTIATED GRANO-DIORITE & LIMESTONE
CONTACT CERTAIN DOUBTFUL
DIP AND STRIKE
STRIKE OF VERTICAL BED
SCALE 1:31250
JUNE 1930
DATUM-MEAN SEA LEVEL
GEOLOGY BY J.W. DALY
GEOLOGIC SECTIONS
SEA LEVEL
SCALE VERTICAL = HORIZONTAL = 1:31250
JENSEN QUARRY
HAUSER QUARRY
CRESTMORE QUARRIES SHOWN ON PLATE II
CRESTMORE
SAN BERNARDINO CO.
RIVERSIDE CO.



Scale in Feet 1"=500'

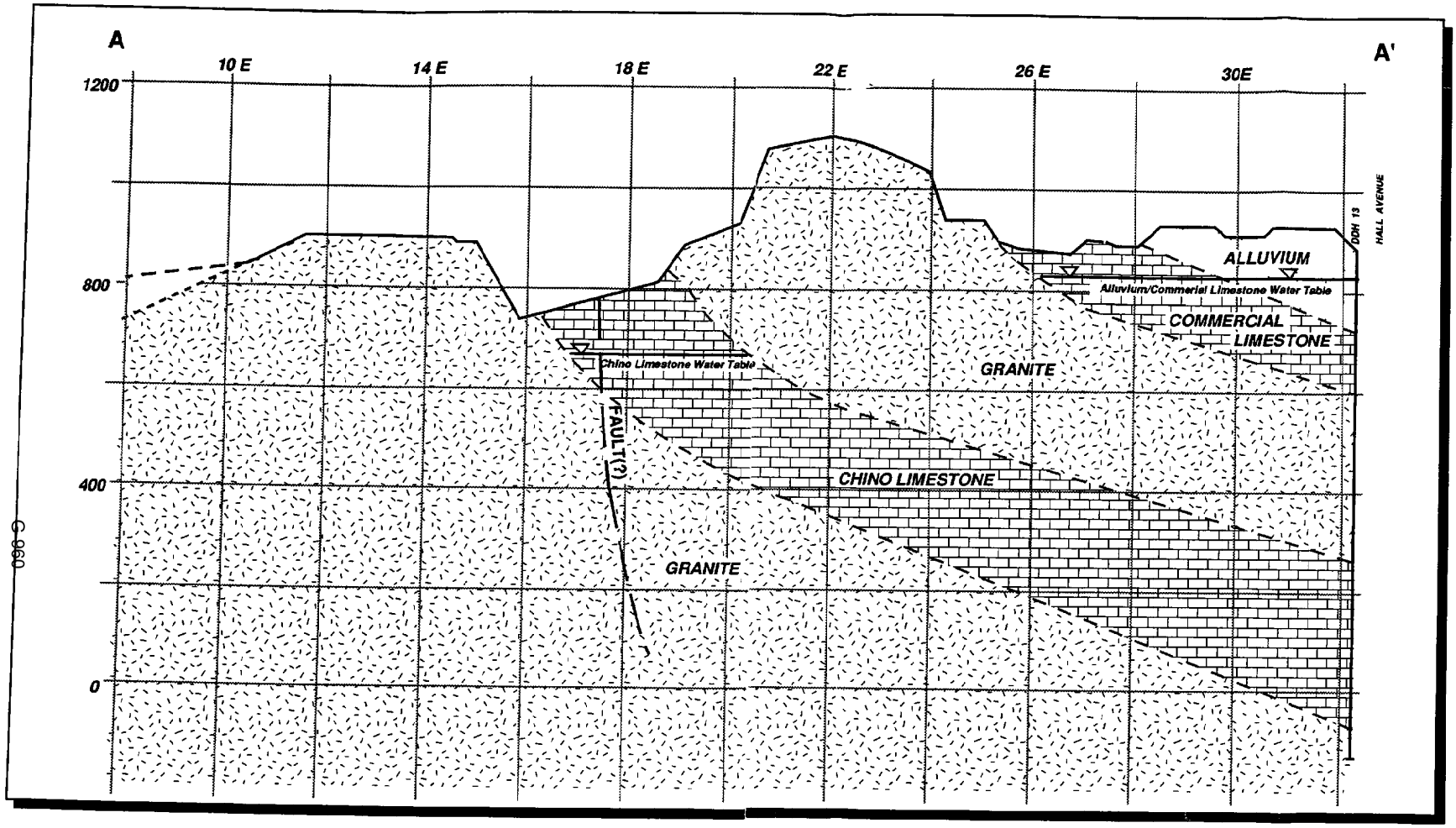
0 500

LEGEND

- Ground Water Well
- 24 Drill Hole Location
- Alluvium
- Granite
- Limestone
- A — A' Cross section Location
- Cement Kiln Dust Disposal Areas

ERM-West, Inc 11/91
1231/DMPV 7 29 91

FIGURE 2-1
DETAILED GEOLOGIC MAP
(Adapted from Daly, 1931)
RIVERSIDE CEMENT CRESTMORE PLANT
RIVERSIDE, CALIFORNIA

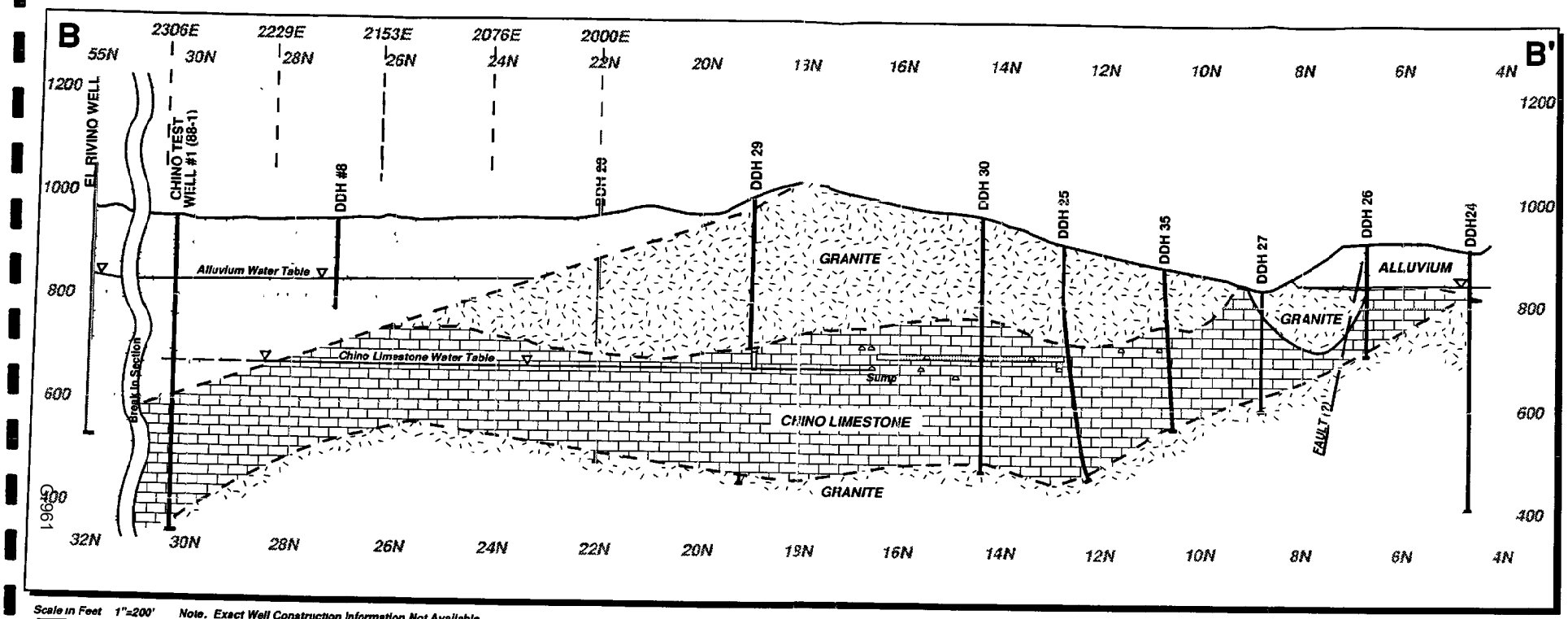


Scale in Feet 1"=200'

0 200'

ERM-West, Inc. 11/91

FIGURE 2-2
CROSS-SECTION A-A' AT 1350N
(Adapted from W. P. Rowe, 1950)
RIVERSIDE CEMENT
CRESTMORE PLANT
RIVERSIDE, CALIFORNIA



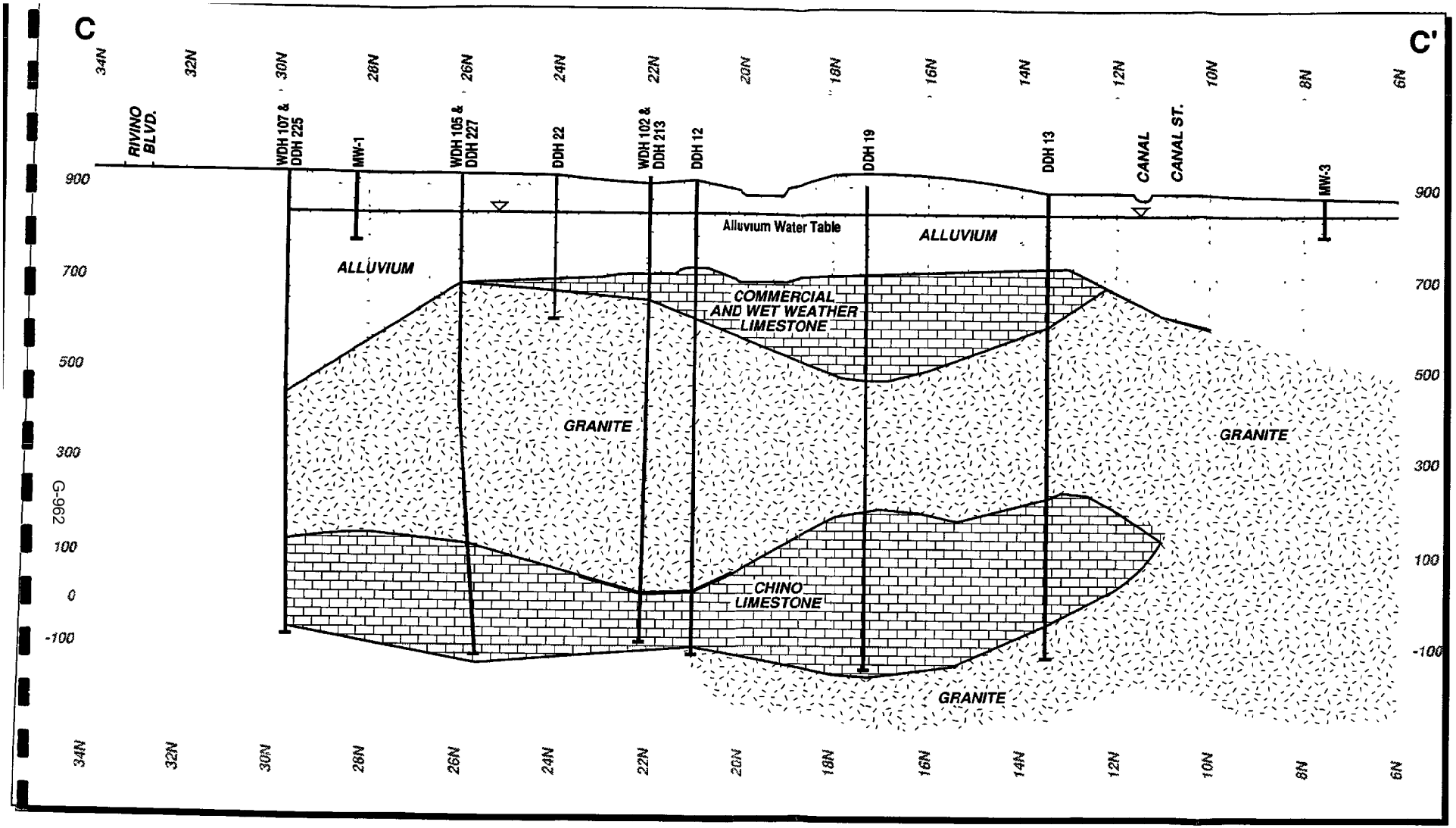
Scale in Feet 1"=200'

0 200'

Note. Exact Well Construction Information Not Available for the El Rivino Country Club Well

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1241/DMPV-7 29 91

FIGURE 2-3
CROSS-SECTION B-B'AT 2000E
(Adapted from W.P. Rowe, 1950)
RIVERSIDE CEMENT
CRESTMORE PLANT
RIVERSIDE, CALIFORNIA

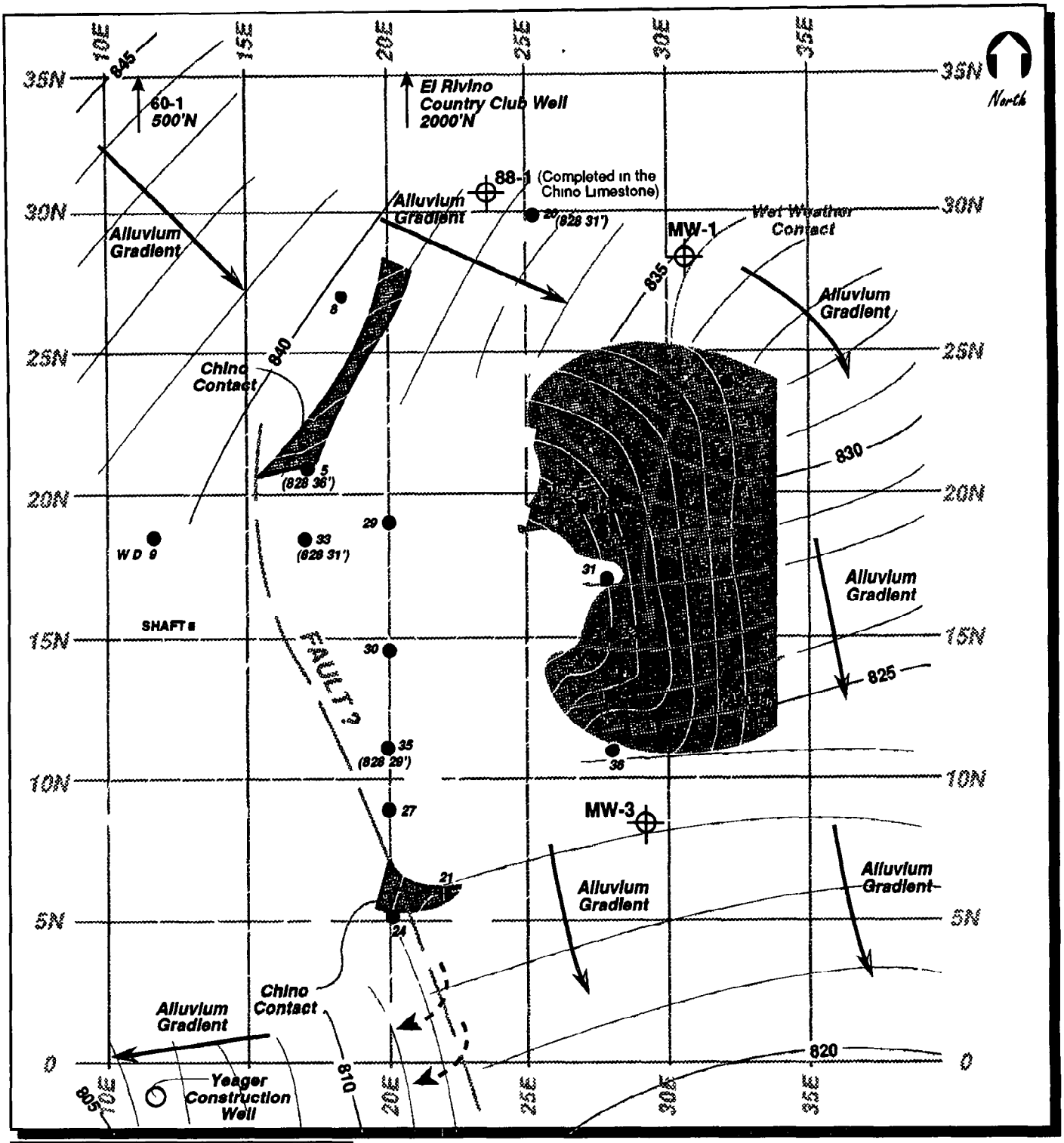


Scale In Feet 1"=200'

0 200'

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FIGURE 2-4
CROSS-SECTION C-C' AT 3230E
(Adapted from 1953 Ore Maps)
RIVERSIDE CEMENT
CRESTMORE PLANT
RIVERSIDE, CALIFORNIA



LEGEND

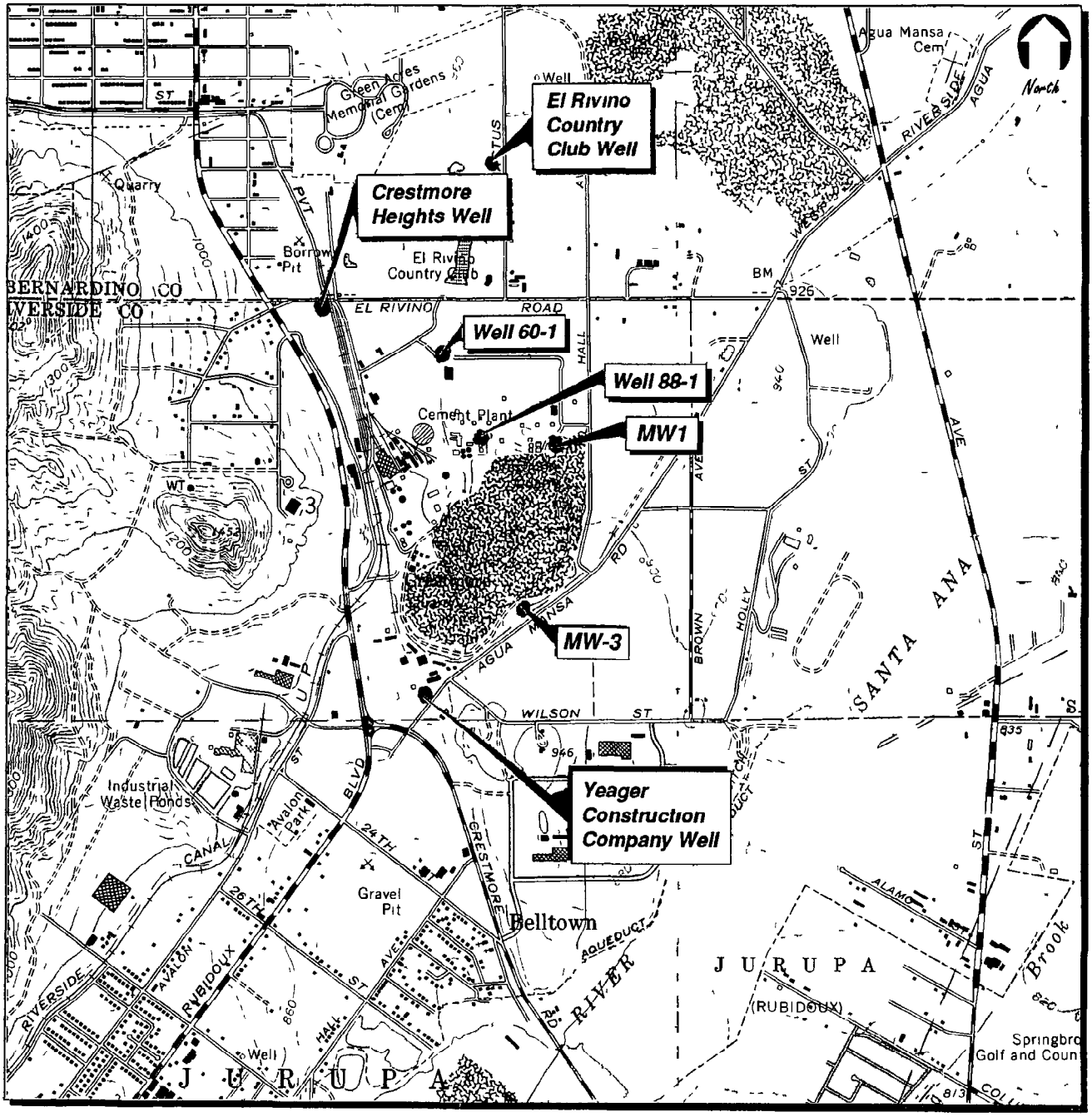
- Ground Water Well
- 828 36 — Chino Limestone Ground Water Elevation
- Wet Weather Hydrographic Contour
- Alluvium Hydrographic Contour
- Bed Rock Contour
- Chino Contact
- Wet Weather Contact
- Ground Water Flow Direction in Alluvium
- Ground Water Flow Direction in Commercial and Wet Weather Limestone
- Inferred Leakage of Ground Water Across Fault Boundary

Scale in Feet 1"=500'

0 500'

ERM-West, Inc 11/91
1231/DMPV 7 29 91

FIGURE 2-5
GROUND WATER CONTOUR MAP
(Adapted from W. P. Rowe, 1928)
RIVERSIDE CEMENT CRESTMORE PLANT
RIVERSIDE, CALIFORNIA



Base From USGS
7 5 Minute Topographic
Map Series, Fontana & San Bernardino
South Quadrangles, California (1980)

FIGURE 3-1
WELL LOCATION MAP
RIVERSIDE CEMENT COMPANY
RIVERSIDE, CALIFORNIA

ERM-West, Inc 11'91
1231/DMPV-10 10 91

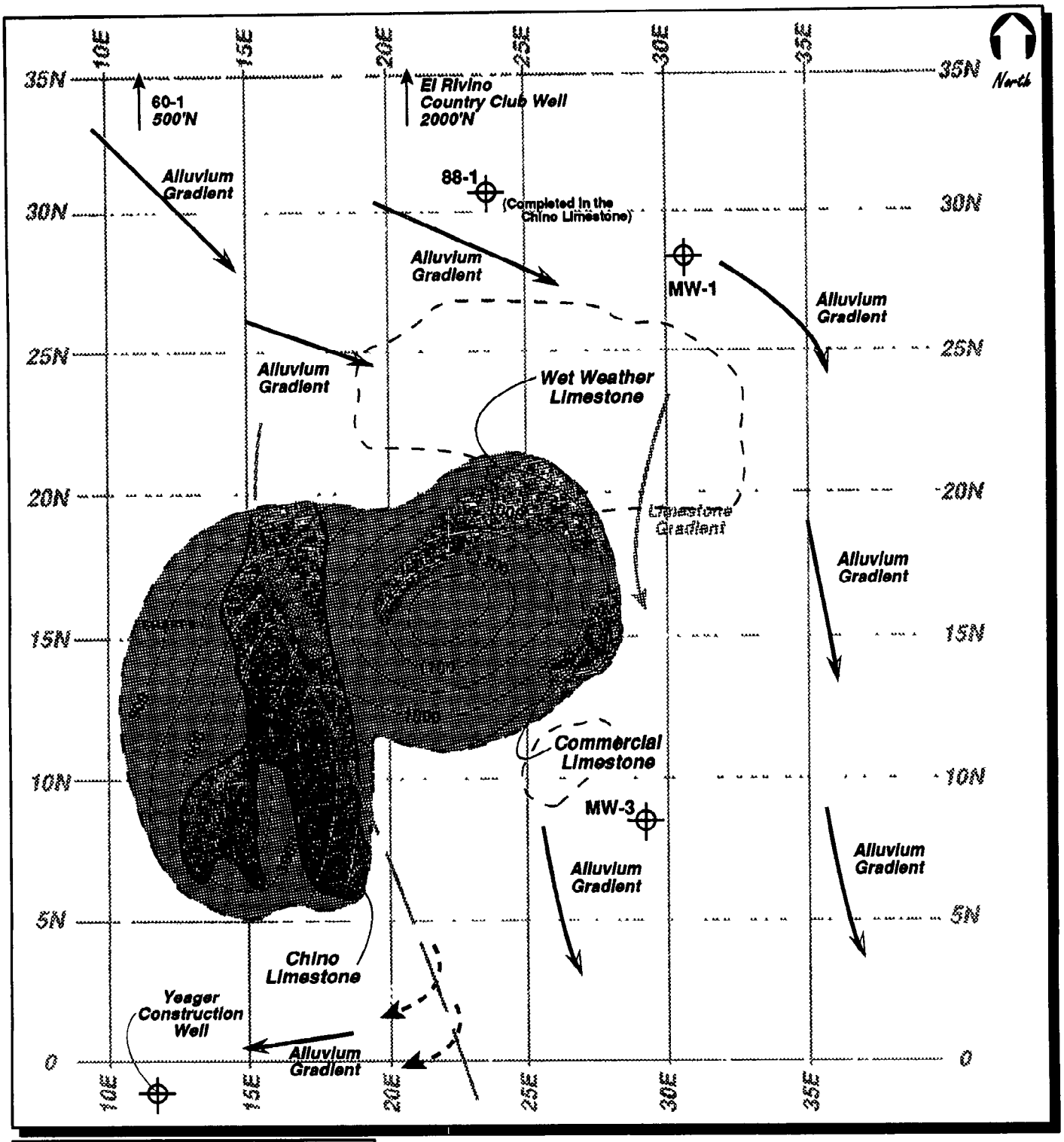


FIGURE 3-2
GROUND WATER WELL LOCATION MAP
(Geology Adapted from Daly, 1931)
RIVERSIDE CEMENT CRESTMORE PLANT
RIVERSIDE, CALIFORNIA

ERM-West, Inc 11/91
1231/DMPV-7 29 91

APPENDIX A

EPA FIT REPORT

P91123

Purpose: CERCLA Screening Site Inspection

Site: Riverside Cement Co. Crestmore Plant
1500 Rubidoux Blvd.
Riverside, CA 92502
Riverside County

RECEIVED
DEC 11 1990
PLANT
MANAGERS OFFICE

Site EPA ID Number:	CAD063844443
TDD Number:	F9-8906-067
Program Account Number:	FCA1233SAA
FIT Investigators:	Paul H. Brown Janet Kaps Peter Towle Toner Mitchell Laurie Campbell
Date of Inspection:	May 30, 1990
Report Prepared By:	Paul H. Brown
Report Date:	September 30, 1990
FIT Review/Concurrence:	Patty Cook 9/27/90
Submitted To:	Carolyn Douglas Site Assessment Manager EPA, Region IX 415-744-2343

ecology and environment, inc.
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International Specialists in the Environment

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TABLE OF CONTENTS

Section		Page
1	INTRODUCTION	1-1
2	SITE DESCRIPTION	2-2
	2.1 SITE LOCATION AND OWNERSHIP HISTORY	2-1
	2.2 FACILITY PROCESSES AND WASTE MANAGEMENT HISTORY	2-3
3	APPARENT PROBLEM	3-1
4	REGULATORY INVOLVEMENT	4-1
5	HRS FACTORS	5-1
	5.1 WASTE TYPE AND QUANTITY	5-1
	5.2 GROUNDWATER	5-2
	5.2.1 Groundwater Sampling Results	5-6
	5.2.2 CKD Leachability Sampling Results	5-7
	5.3 SURFACE WATER	5-7
	5.4 AIR	5-9
	5.5 ON-SITE	5-11
6	SUMMARY OF FIT INVESTIGATIVE ACTIVITIES	6-1
	6.1 AGENCIES CONTACTED	6-1
	6.2 RECONNAISSANCE OBSERVATIONS	6-1
	6.3 SAMPLING	6-2
	6.3.1 SUMMARY AND OBJECTIVE	6-2
	6.3.2 SAMPLE PLAN AMENDMENTS	6-3
	6.3.3 SAMPLING PROCEDURES	6-4
7	EMERGENCY RESPONSE CONSIDERATIONS	7-1
8	SUMMARY OF HRS CONSIDERATIONS	8-1
9	EPA RECOMMENDATION	9-1
10	REFERENCES	10-1

Appendix

A	Contact Log and Reports
B	Photodocumentation
C	Sampling and Analysis Plan
D	Analytical Results of Groundwater and Soil Sampling

LIST OF ILLUSTRATIONS

Figure		Page
2-1	SITE LOCATION MAP	2-2
2-2	FACILITY DIAGRAM WITH WASTE DISPOSAL AND SOIL SAMPLE LOCATIONS	2-4
2-3	AREAS OF KNOWN OR SUSPECTED WASTE DISPOSAL AND SOIL SAMPLE LOCATIONS AT THE JENSEN QUARRY	2-6
5-1	GROUNDWATER FLOW DIRECTION AND GROUNDWATER SAMPLE LOCATIONS	5-4

Table		Page
5-1	CONCENTRATIONS OF SELECTED CERCLA HAZARDOUS SUBSTANCES DETECTED IN CKD	5-2
5-2	CHROMIUM LEVELS IN WELL 60-1	5-5
5-3	CHROMIUM LEVELS IN THE CRESTMORE MINE WATER	5-6
5-4	SELECTED RESULTS OF FIT GROUNDWATER SAMPLING	5-7
5-5	SELECTED RESULTS OF CKD ANALYSIS FOR TOTAL METALS AND LEACHABLE METALS	5-8
5-6	LISTED ENDANGERED AND THREATENED SPECIES AND CANDIDATE SPECIES THAT MAY OCCUR ON OR IN THE VICINITY OF RIVERSIDE CEMENT	5-10
5-7	NEARBY POPULATION	5-11

1. INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA) the U.S. Environmental Protection Agency (EPA) has tasked Ecology and Environment Inc.'s Field Investigation Team (FIT) to conduct a Screening Site Inspection (SSI) of Riverside Cement Co., Crestmore Plant in Riverside, California. This report summarizes FIT's investigative efforts.

2. SITE DESCRIPTION

2.1 SITE LOCATION AND OWNERSHIP HISTORY

The Riverside Cement Company's Crestmore Plant is an active cement manufacturing facility located at 1500 Rubidoux Boulevard in Riverside, California (Township 2 South, Range 5 West, Sections 2 and 3, San Bernardino Base Line and Meridian; Latitude: 34° 1′ 30", Longitude: 117° 23′ 6")(1,2). The site includes two facilities: the Crestmore facility and the Jensen Quarry. The Crestmore facility includes two inactive limestone quarries: the Wet Weather Quarry and the Commercial Quarry; and two cement processing plants: an inactive gray cement plant and an active white cement plant. The entire Crestmore facility covers 10 acres of land approximately 1 mile west of the Santa Ana River (see Figure 2-1 Site Location Map). The Jensen Quarry is a separate quarry and solid waste dump area which is currently inactive. It was formerly owned by Riverside Cement, and is located approximately 3 miles west of the Crestmore facility in the Jurupa Mountains. (Township 2 South, Range 5 West, Section 5)(see Figure 2-1 Site Location Map) (3).

Cement has been manufactured at the Crestmore facility in 12 on-site kilns since 1909 except for a 13-year period between 1929-1942. The site ownership has passed from several corporations. Originally incorporated as Southern California Cement Company in 1906, the company changed its name to Riverside Portland Cement Company in 1909 and to Riverside Cement Company in 1928. There are several Riverside Cement operations in the Southern California area which handle all phases of cement production and distribution. In 1958 Riverside Cement merged with Peerless Cement and Hercules Cement and bought Phoenix Cement. These companies then became American Cement Corporation, or Amcord. Amcord was bought out by Giffard-Hill in 1979. In 1987 Beazer Holdings Ltd. purchased the Giffard-Hill company which included Riverside Cement (4). Throughout this report "Riverside Cement" will refer to these past and current owners and operators of the site.

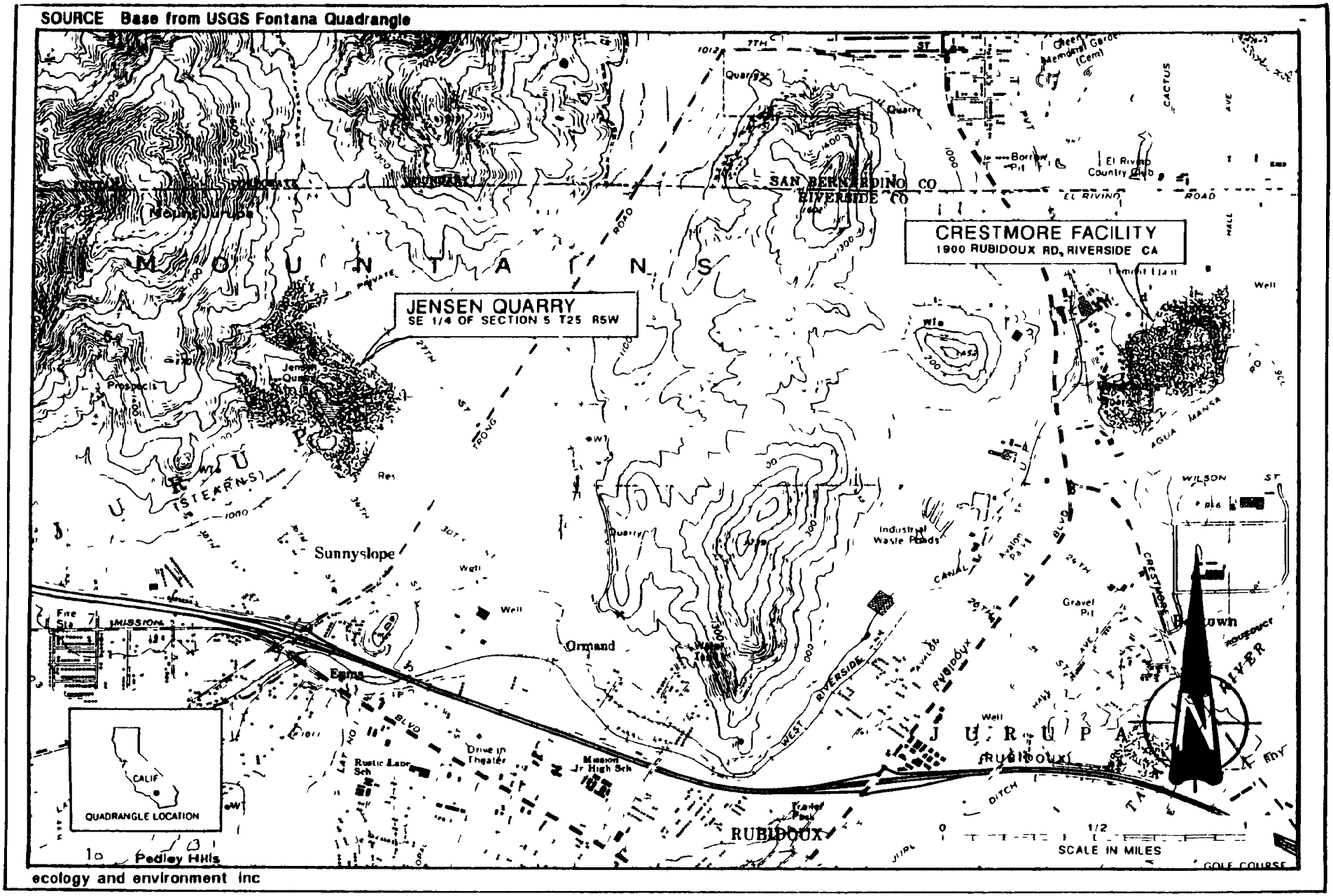


Figure 2-1 SITE LOCATION MAP
RIVERSIDE CEMENT JENSEN QUARRY AND CRESTMORE FACILITY

The Jensen Quarry was developed during World War I by the Riverside Cement Company and operated until 1927. Large scale operations at the quarry began again in 1948 and were discontinued sometime in the early 1950s (5,4). A California Department of Water Resources report indicated that in 1966 the quarry was used for riprap mining and as a disposal area for waste from cement processing at the Crestmore facility (4). Jensen Quarry was sold by Riverside Cement some time after 1964 and is currently owned by Walter and Elizabeth Taylor of Fountain Valley, California (6).

Limestone, the principal constituent of cement, has been mined on site both at the Jensen Quarry and at the Crestmore facility by various methods including block caving, room and pillar, and surface extraction quarrying. A large room and pillar mine at the Crestmore facility, the Crestmore Mine, flooded in 1986. Currently a small lake covers the mine entrance (3). Mining at the Commercial and the Wet Weather surface quarries extracted limestone deposits until production was halted when groundwater was encountered (7). Since 1986, only cement manufacturing and packaging from imported raw materials has occurred at the Crestmore facility (3). (See Figure 2-2 Facility Diagram).

2.2 FACILITY PROCESSES AND WASTE MANAGEMENT HISTORY

The cement manufacturing process involves homogenizing and blending raw feed composed of 90% limestone with 9% clay and 1% iron oxide. This raw feed is then heated in a sloped rotary kiln to a temperature of 2700° F where it undergoes a chemical reaction. When the mixture is rapidly cooled, it forms into marble-sized balls called "klinker". It is stored in this form until crushed and mixed with gypsum to form cement (3).

The predominant waste stream generated in this process is cement kiln dust (CKD). CKD is extracted from the kiln to lower the pH of the final cement product. CKD is collected in baghouses and has been disposed of at several disposal areas on site including the quarry excavations at the Jensen, Commercial, and Wet Weather quarries and in a depression near the

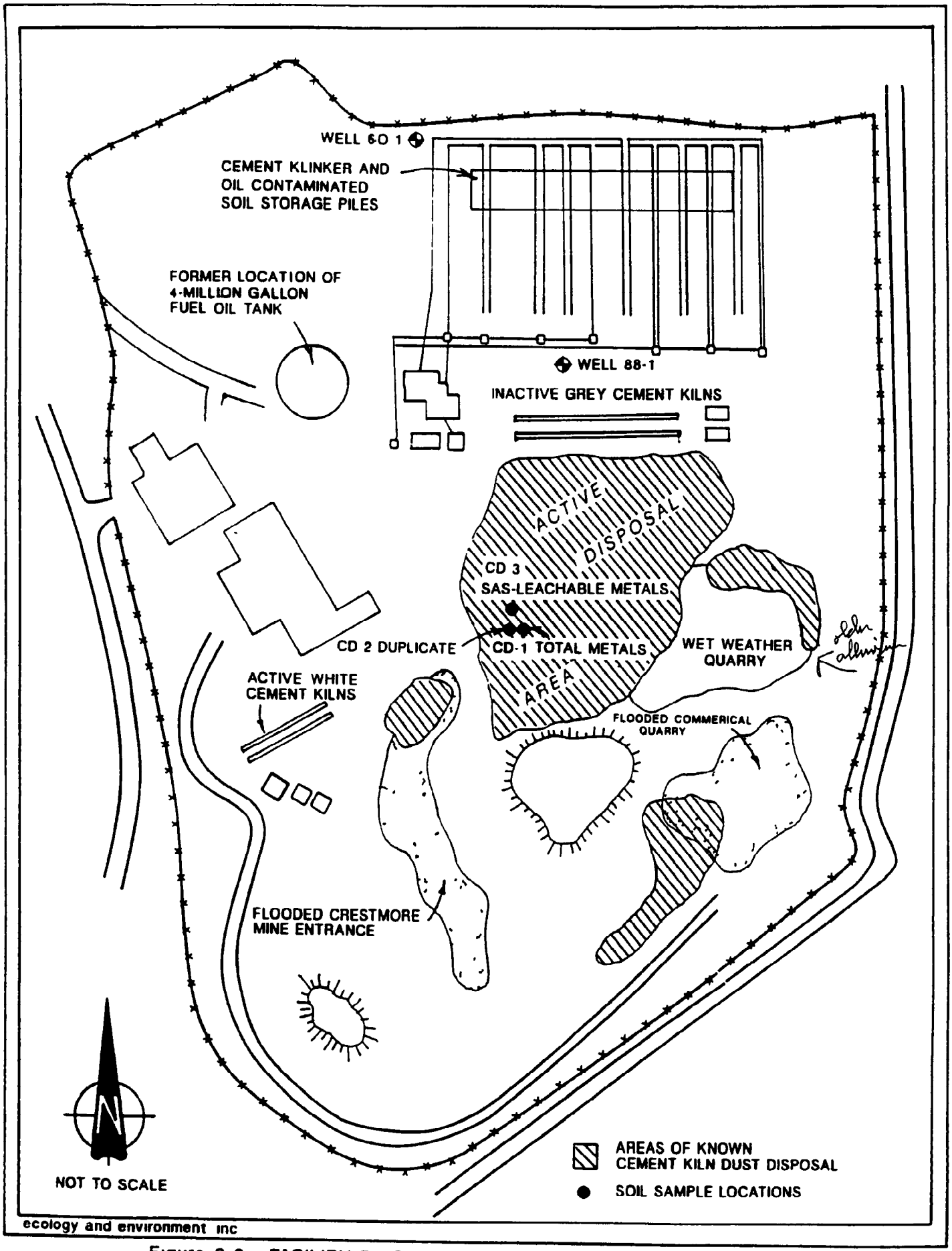


Figure 2-2 FACILITY DIAGRAM WITH WASTE DISPOSAL AND SOIL SAMPLE LOCATIONS
RIVERSIDE CEMENT CRETMORE PLANT
1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA

G-92

entrance to the Crestmore Mine (see Figure 2-2, Facility Diagram and Figure 2-3 Disposal Areas at Jensen Quarry) (9,7). Disposal at the Jensen and Commercial Quarries was discontinued sometime prior to 1969. At that time Riverside Cement began disposing of CKD in a ravine between the Crestmore mine entrance and the Wet Weather Quarry (9). A dam was constructed from demolition debris across the lower end of this ravine by Riverside Cement in 1968 (9). Disposal of CKD waste in this area has continued to the present (3). This disposal area will be referred to as the active CKD dump. Some recovery and reuse of CKD and raw feed disposed of in the commercial quarry area has been done by Riverside Cement (3). Riverside Cement has estimated that 250,019 tons of CKD was disposed of at the Crestmore facility between 1964 and 1987 (8). One set of analytical results indicated the presence of several CERCLA-defined hazardous substances in CKD. (See Section 5.1, Waste Type and Quantity).

Another waste stream of concern at the facility is waste refractory brick, also known as "basic brick," containing 10% hexavalent chromium. Basic brick is used to line the hottest area of the rotary kiln due to it's resistance to heat and abrasion. These bricks wear down periodically and are replaced. From 1955 until 1979, approximately 48 cubic yards of basic brick was disposed of at unspecified on-site disposal areas along with CKD (1). From 1980 to 1987, these bricks were either recycled back into the raw feed and made into cement or manifested for off-site disposal (8).

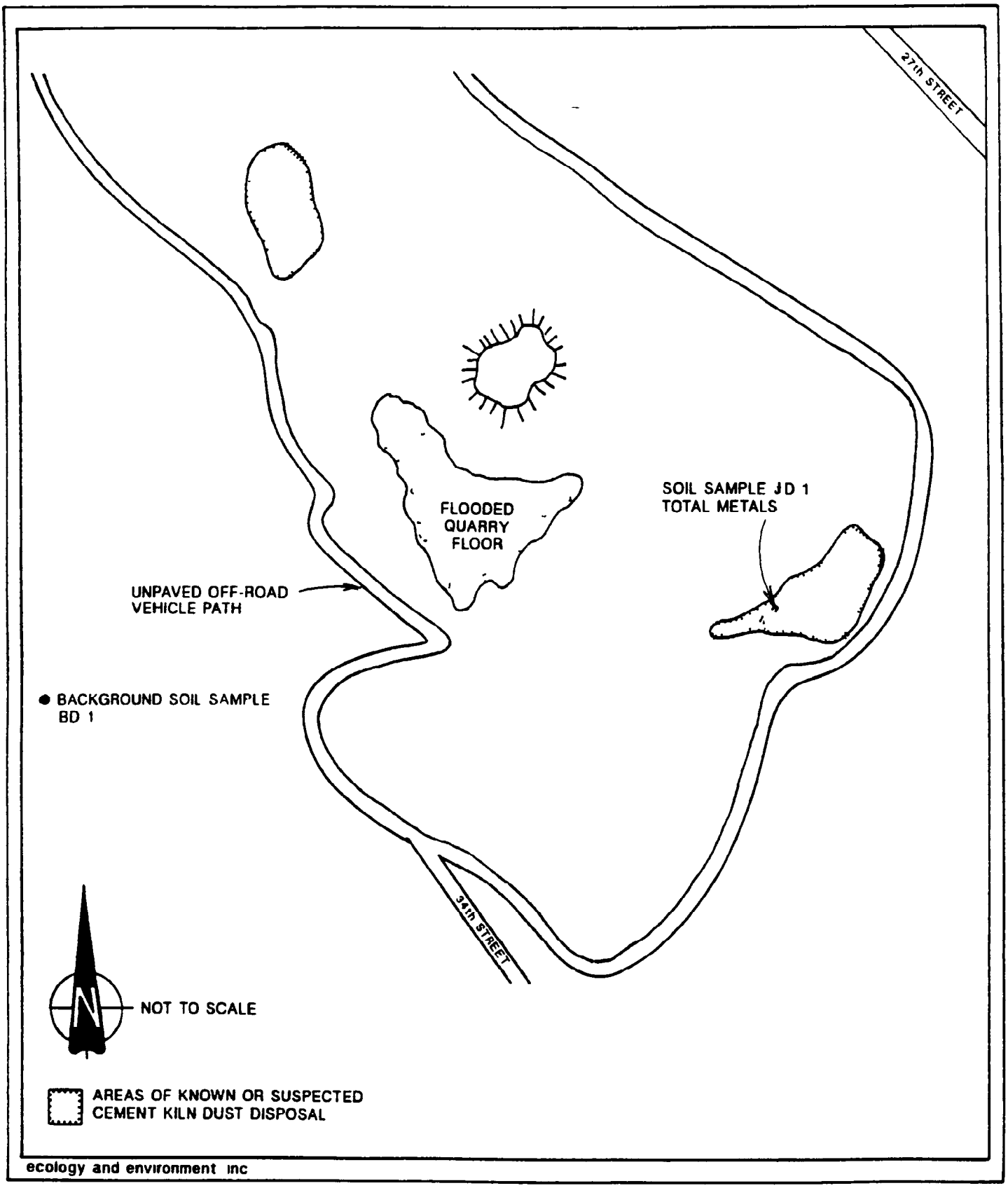


Figure 2-3 AREAS OF KNOWN OR SUSPECTED WASTE DISPOSAL AND SOIL SAMPLE LOCATION JENSEN QUARRY

G-976

3. APPARENT PROBLEM

The waste material disposal areas on site are centered around three limestone quarries: the Wet Weather Quarry, the Commercial Quarry, and the Jensen Quarry (3,7).

The Wet Weather and Commercial Quarries are located adjacent to the Crestmore cement plant. The Jensen Quarry is located two miles west of the cement plant in the Jurupa Hills (see Figure 2-1) (5).

Wastes including basic brick and CKD were possibly disposed of in excavations at the Wet Weather Quarry at or near the historical groundwater elevation. Saturation of these wastes could cause the leaching of soluble heavy metal contaminants into the alluvial aquifer serving Riverside Basin groundwater users (see Section 5.2, Groundwater Pathway). Chromium contamination was detected by Santa Ana Regional Water Quality Control Board (RWQCB) monitoring in two on-site production wells in 1973. Subsequent monitoring by RWQCB revealed that chromium levels in these wells have diminished (10,11). FIT sampling confirmed that groundwater downgradient from the Wet Weather Quarry CKD disposal area contains higher levels of heavy metals relative to upgradient groundwater samples. (See Section 5.2 Groundwater).

4. REGULATORY INVOLVEMENT

Riverside Cement has been regulated by RWQCB since approximately 1959 (12). RWQCB attention has been directed to numerous water quality-affecting processes on site including on-site disposal of CKD and chromium-containing refractory brick, as well as discharge of chromium-contaminated cooling water and sanitary waste disposal (13).

The South Coast Air Quality Management District has numerous active permits covering Riverside Cement's raw feed stockpiles and processing equipment and kilns (14).

The facility is also regulated by the Riverside County Air Pollution Control Board (4).

The California Department of Health Services (DHS) has been involved in the closure removal and clean-up of the facility's 6-million-gallon oil tank (3,10,26).

The Riverside Cement Company is listed as a generator in the Resource Conservation and Recovery Act (RCRA) data base as of May 8, 1990. RCRA hazardous wastes generated on-site include basic brick, asbestos insulation from plant refurbishing, and some PCB containing transformers. CKD is excluded from being a hazardous waste under RCRA. The Riverside County Sanitation District has designated CKD disposed on-site as inert waste (4). Riverside Cement is not listed on the 1989 California State Bond Expenditure Plan.

5. HRS FACTORS

The Hazard Ranking System (HRS) is a scoring system used to assess the relative threat associated with actual or potential releases of hazardous substances from sites. It is the principal mechanism EPA uses to place sites on the National Priorities List (NPL). EPA has proposed revisions to the HRS, pursuant to the Superfund Amendments and Reauthorization Act of 1986 (SARA). FIT has evaluated the following proposed revised HRS factors relative to this site.

5.1 WASTE TYPE AND QUANTITY

FIT identified two sources of potentially uncontained hazardous substances at the Riverside Cement Crestmore Plant: CKD and Basin Brick.

Riverside Cement managers have estimated that approximately 250,015 tons of CKD have been disposed of on site. There has been no effective barrier constructed to contain the waste CKD which had been disposed of in quarry excavations, one of which was at or near the historical groundwater elevation (7,8).

FIT obtained and analyzed a sample of CKD through a CLP laboratory. The sample location is identified as CD-1 on Figure 2-2. A complete listing of the analytical results is in Appendix D. Table 5-1 shows the most significant concentrations of CERCLA-defined hazardous substances detected.

Table 5-1

CONCENTRATIONS OF SELECTED CERCLA HAZARDOUS SUBSTANCES DETECTED IN CKD (in mg/kg)

	CKD	*TTLC
Aluminum	9270	N/A
Barium	473	10,000
Cadmium	2.9	100
Chromium	4.6	2500
Lead	106	1000
Vanadium	5.5	2400

*TTLC - California Title 22 Total Threshold Limit Concentration

Constituent data is not available for the basic brick disposed of on site. In a notification of Hazardous Waste site activity, Riverside Cement indicated that its waste refractory kiln brick contained approximately 10% hexavalent chromium and that approximately 48 cubic yards of basic brick have been disposed of on site. The exact location of this basic brick disposal is unknown.

5.2 GROUNDWATER

The Crestmore site is located in the Riverside Hydrologic Subarea at the base of an isolated rock outcropping at the eastern end of the Jurupa Mountains. Local ground surface elevations range from 900 to 920 feet above mean sea level (msl), not including quarry excavations. Two limestone beds, separated by a 500-foot bed of quartz diorite striking north and slightly east, directly underlie the area. The upper limestone bed is called the Sky Blue Limestone. The lower bed is called the Chino Limestone. Both formations range in thickness from 200 to 300 feet (7).

The Wet Weather Quarry mined the Sky Blue Limestone formation prior to the quarry's use as a CKD disposal area. The quarry excavation exposed Aeolian sand dune deposits to the southeast. Underlying these deposits near the facility are granite and limestone beds. As these beds dip into the valley floor, older alluvium directly underlies the Aeolian deposits. The underlying older alluvium is composed of lenses of unconsolidated, poorly sorted gravel, sand, silt, and clay. These older alluvial

deposits are the major source of groundwater in the Riverside Basin. Although the aquifer of concern is found in the older alluvium, on-site production wells that have previously shown contamination, may extract water from both the Sky Blue and the Chino limestones. A California Department of Water Resources memorandum concerning waste disposal at the Crestmore facility stated that differences in water quality and static water elevations between the limestone aquifers and the alluvial water-bearing zones indicate that these formations may be isolated from each other. The regional groundwater flow gradient in the alluvial aquifer is to the southwest (see Figure 5-1) (7).

In 1965, the depth of limestone excavations in the Wet Weather Quarry was at an elevation of 825 feet above msl. Excavation ceased at this elevation likely due to the presence of groundwater (7). It is unclear if the water encountered at that elevation was in communication with the alluvial aquifer or with the Sky Blue Limestone aquifer. A well located 2,000 feet east of the site, screened in the alluvial aquifer, had a static water level of 800 feet above msl in 1965 and a historic high level of 830 feet above msl in 1945 (7).

The Rubidoux Community Service District operates two wells approximately 3.75 miles south from the site that contribute to a well system which serves over 5,000 households. These wells are screened, beginning at 60 feet below ground surface (bgs) (15). Recent sampling data do not indicate that elevated levels of heavy metals exist in these wells (16). The Crestmore Heights Mutual Water Company operates a well located on Riverside Cement Property which serves approximately 100 households. This well is located approximately 0.4 miles from the Crestmore active CKD dump. This well was originally constructed as a Mine de-watering well for the Crestmore Mine. It has an open-ended casing at approximately 250 feet bgs. The high detection limits of sampling data from this well is inadequate for determining levels of specific heavy metals (17).

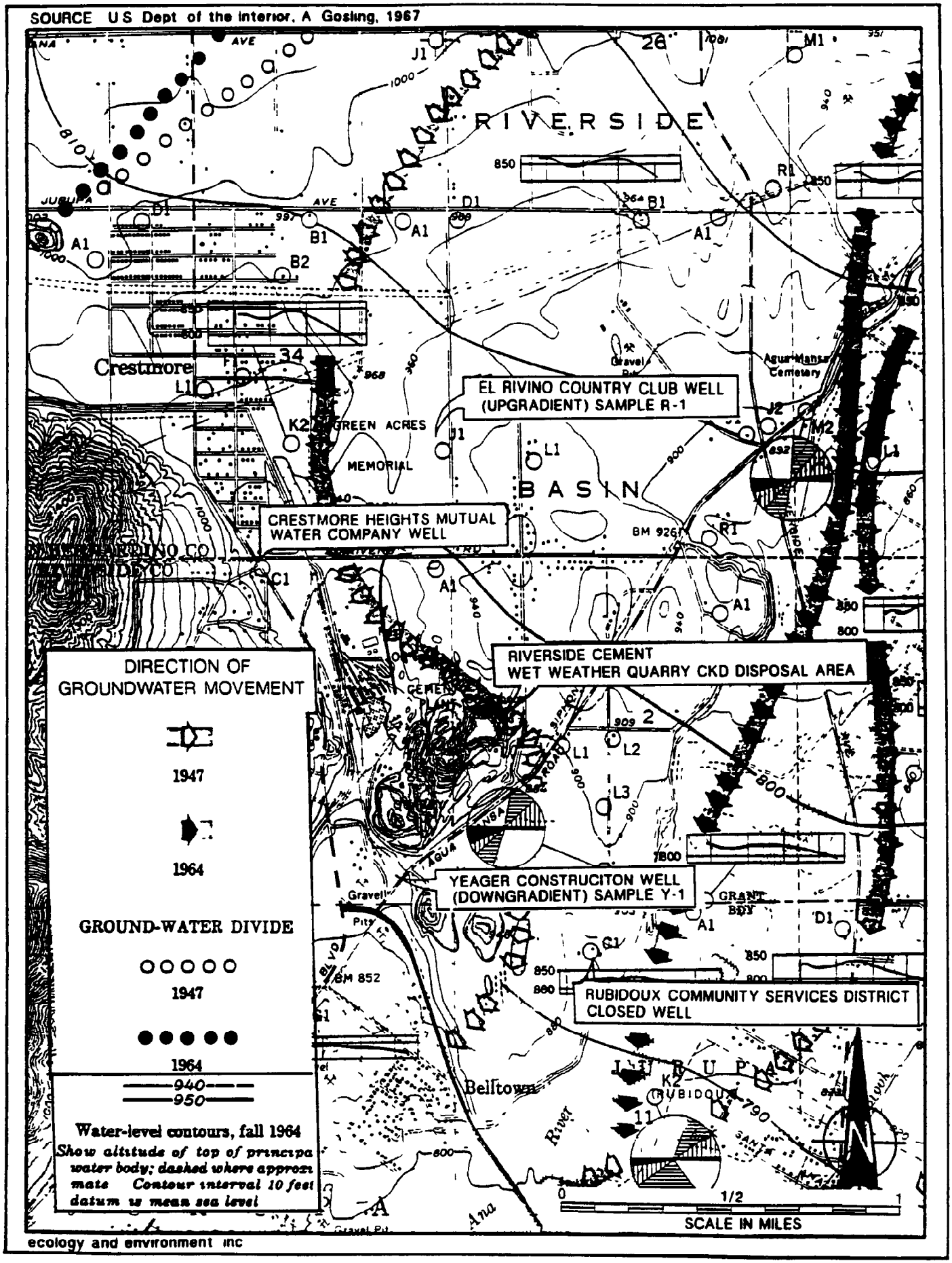


Figure 5-1 GROUNDWATER FLOW DIRECTION AND GROUNDWATER SAMPLE LOCATIONS

Possible groundwater contamination at the site came to the attention of RWQCB in 1973 when a high level of chromium (0.55 mg/L) was detected in the facility's wastewater which is released to the Riverside Irrigation Canal. Riverside Cement investigated this incident and determined it to be an unusual release of recirculated cooling water treated with chromate (18). However, subsequent sampling by Riverside Cement of its on-site well, #60-1 (see Figure 2-2), revealed levels of chromium as indicated in Table 5-2 (11):

Table 5-2

CHROMIUM LEVELS IN WELL #60-1 (mg/L)

Year of Sample	Hexavalent Chromium	Total	Current Maximum Contaminant Level for Chromium
1976 (January)	.03	.09	.05
1976 (June)	.04	*	
1984	*	.03	
1985	*	.02	
1986	*	.02	
1988	*	.02	
1989	*	.01	

* Analyses not performed.

Another on-site well, #88-1, has shown total chromium levels of .02 mg/L in 1988 and in 1989. (See Figure 2-2).

Well logs for these wells are unavailable and it is unknown if these wells are screened in limestone or alluvial deposits (7).

Water from the flooded Crestmore Mine was also sampled by Riverside Cement. Table 5-3 lists the analyses results.

Table 5-3

CHROMIUM LEVELS IN CRESTMORE MINE WATER (mg/L)

Year of Sample	Hexavalent Chromium	Total	Current Maximum Contaminant Level for Chromium
1976	.03	.05	.05
1984	*	.01	
1987	*	.01	
1989	*	.02	

* Not analyzed

Additionally, in 1988 a well owned by the Rubidoux Community Services District, located 0.5 miles southeast of the site showed levels of lead at .01 mg/L and total chromium at .01 mg/L (see Figure 5-1). This well was closed in 1989 due to high nitrate levels (16).

Background levels of chromium and lead in other on-site wells sampled by Riverside Cement were not detected with detection limits of 0.01 mg/L (11).

5.2.1 GROUNDWATER SAMPLING RESULTS

Despite the availability of local groundwater analytical data, no wells directly downgradient from the disposal area, screened in the alluvial aquifer, were previously sampled. FIT sampled the Yeager Construction Company's well, located 0.5 miles southwest and downgradient of the active waste disposal area.

Several CERCLA-defined hazardous substances were detected in the downgradient Yeager well at concentrations significantly greater than those detected in the upgradient El Rivino Country Club well. Table 5-4 presents selected results of FIT's groundwater sampling. Appendix D contains the complete results of groundwater sampling.

Table 5-4

SELECTED RESULTS OF FIT GROUNDWATER SAMPLING (µg/L)[1]

Constituent	Y-1 Downgradient Concentration	R-1 Background Upgradient Concentration	IDL[2]	CRDL[3]
Aluminum	155	26.9	13	200
Chromium	19.4	3.8		
Manganese	34.4	<1	1	15

1 All units are micrograms per liter
2 Instrument detection limit
3 Contract Required Detection limit

The elevated levels of metals detected in the downgradient well relative to the upgradient well indicate an observed release to groundwater. However, the limestone outcropping which is located in the active CKD disposal area possibly contributes to the elevated metals in downgradient samples (19).

5.2.2 CKD LEACHABILITY SAMPLING RESULTS

To more accurately determine the potential for on-site waste CKD disposal to leach toxic metals into groundwater, FIT performed a California Waste Extraction Test (Cal Wet) on a sample of CKD. A duplicate of this sample was also analyzed for total metals. The analysis was conducted by the EPA Region IX laboratory. Table 5-5 lists the total concentration of extracted metals detected and the total concentration of metals leached from the CKD in the Cal Wet test for several metals of concern at Riverside Cement. Appendix D contains the complete results of this test.

5.3 SURFACE WATER PATHWAY

While analytical data documenting the site's past chromium release to surface water is available, it is unlikely that any further sampling would document subsequent surface water contamination.

Table 5-5

Selected Results of CKD Analysis for Total Metals and Leachable Metals[a] (CD-3)

	Total Metals in mg/kg[b]	TTLC[c] in mg/kg	Leachable Metals[a] in µg/L[d]	STLC[e] in µg/L[d]
Aluminum	10,200	g	17,300	g
Barium	529	10,000	419	100,000
Cadmium	1.7	100	ND	1,000
Chromium	7.1[h]	500f	195[h]	50,000
Lead	96.4	1,000	ND	5,000
Nickel	6.9	2,000	ND	20,000
Selenium	.91	100	33.2	1,000
Vanadium	5.4	2,400	194	24,000

a - Cal Wet process
b - Milligrams per kilogram
c - Total threshold limit concentration
d - Micrograms per liter
e - Soluble threshold limit concentration
f - Concentration for hexavalent chromium
g - No standard

None of the metal concentrations detected exceeded either TTLCs or STLCs. However, this test does indicate that CKD has the potential to leach out several metals including aluminum, barium, chromium, selenium, and vanadium.

A release of cooling water containing .55 mg/L chromium to the Riverside Irrigation Canal was documented by RWQCB in 1973 (see Section 5.2, Groundwater Pathway) (20,27). The Riverside Canal is unlined and runs adjacent to the Crestmore facility's southern boundary and is used for irrigation only (21).

The Santa Ana River is located 1 mile east of the Crestmore plant. This river has no use other than flood control and wildlife habitat. Several listed and Candidate Federal Endangered and Threatened Plant and Animal species likely exist in this area. Table 5-6 lists those species (22).

5.4 AIR PATHWAY

Although there is a moderate potential for documenting an air release at the site, air sampling was not within the scope of this Screening Site Inspection.

The Crestmore facility's uncovered storage piles of cement raw materials and "klinker" cover approximately 20 acres. However a large part of this area is currently used to store contaminated soil from Riverside Cement's closure of its 6-million-gallon aboveground fuel storage tank. This waste is excluded from CERCLA under Section 104(a) (18) of the National Contingency Plan. The active CKD disposal area covers approximately another 18 acres (3,23). Both of these areas are sources of potential releases to the air. The storage piles are continuously homogenized with large earth moving conveyers. Dumping of CKD at the disposal area is also ongoing. Both of these processes likely contribute to the entrainment of particulate emissions (3,24).

The federally designated endangered species possibly found within 4 miles of the site are listed in Table 5-6.

Table 5-7 shows the population distribution within 4 miles of the site (25).

Table 5-6

LISTED ENDANGERED AND THREATENED SPECIES AND CANDIDATE SPECIES THAT MAY OCCUR ON OR IN THE VICINITY OF RIVERSIDE CEMENT (22)

LISTED ENDANGERED SPECIES	
Mammals	
Stephen's kangaroo rat	*Dipodomys stephensi*
Birds	
least bell's vireo	*Vireo bellii pusillus*
Plants	
Slender-horned spineflower	*Centrostegia leptoceras*
Santa Ana River woolly-star	*Eriastrum densifolium sanctorum*
CANDIDATE THREATENED SPECIES	
Mammals	
spotted bat	*Enderma maculatum*
greater mastiff bat	*Eumops perotis californicus*
Los Angeles pocket mouse	*Perognathus longimembris brevinasus*
Birds	
white-faced ibis	*Plegadis chihi*
Swainson's hawk	*Buteo swainsoni*
Ferruginous hawk	*Buteo regalis*
long-billed curlew	*Numenius americanus*
tricolored blackbird	*Agelaius tricolor*
Reptiles	
orange-throated whiptail	*Cnemidophorus hyperythrus*
San Diego Horned Lizard	*Phrynosoma coronatum blainvillei*
western pond turtle	*Clemmys marmorata*
Amphibians	
California red-legged frog	*Rana aurora draytoni*
Invertebrates	
greenest tiger beetle	*Cincindela tranquebarica viridissima*

Table 5-7 Nearby Population

Distance From Site (miles)	Population
0 - 0.25	937
.25 - 0.5	0
0.5 - 1	7
1 - 2	6962
2 - 3	28,156
3 - 4	33,384
Total	69,446

Riverside Cement is actively regulated by the South Coast Air Quality Management District and the Riverside County Air Pollution Control Board. Riverside Cement has a good record of compliance with these agencies (4,14).

5.5 ON-SITE PATHWAY

The on-site pathway is not a concern at the Crestmore area of the site. This area is fenced, guarded, patrolled and in continuous operation, thereby restricting on-site access. However, the Jensen Quarry area is unfenced and in use as a recreation lake and off-road vehicle area by trespassers (3). FIT collected samples at a suspected CKD dump area at the Jensen Quarry to determine if uncontained CKD, containing elevated levels of heavy metals, poses a potential for exposure to humans entering this area.

No significantly increased levels of CERCLA hazardous substances were detected in the sample from the suspected CKD dump area relative to the background sample (see Appendix D). The on-site pathway therefore does not appear to be of acute concern at the Jensen Quarry.

6. SUMMARY OF FIT INVESTIGATIVE ACTIVITIES

6.1 AGENCIES CONTACTED

FIT contacted RWQCB to interview the project manager for the site and copy the agency's files (13). FIT also contacted the Riverside County Health Department Sanitation District regarding the regulation of Riverside Cement's landfill, and the Environmental Health Department concerning possible complaints about the facility. FIT contacted the local enforcement office of the South Coast Air Quality Management District concerning the permit and enforcement status of Riverside Cement (14). FIT contacted the Department of Health Services concerning the facility's aboveground tank removal and other information about the site. FIT also contacted the California Department of Water Resources and obtained well logs of nearby wells.

6.2 RECONNAISSANCE OBSERVATIONS

FIT conducted a site reconnaissance at Riverside Cement on August 11, 1989. A meeting with facility representatives was conducted during which FIT explained the scope and purpose of the site inspection and identified the areas and pieces of specific information required for the investigation. Riverside Cement representatives were very helpful in providing an overview of the plant's history, waste disposal practices, sampling data, and site specific hydrology both at the meeting and in subsequent correspondence following the interview. A tour of the plant site was conducted by Pat Hill, the plant manager. Several areas of concern were identified during the tour. The active CKD disposal area, which may have received waste refractory kiln brick, partially fills in the Wet Weather Quarry. Water visible at the bottom of the quarry is likely to be at historic groundwater levels. However, Riverside Cement representatives have indicated that the source of this water is a leak at a nearby process building (8). This situation appeared to pose a potential for waste disposal on site to effect groundwater quality. Another area of concern identified during the site visit was the

potential for an air release from the site emanating from the earth moving activities at the site's open raw material stockpiles and active CKD dump. Drainage from the site would either be to the quarry floors or into the West Riverside Canal which would prevent any surface water runoff to the Santa Ana River. The entire Crestmore facility was fenced, and guarded. After departing the Crestmore facility, FIT inspected the Jensen Quarry site and located areas of CKD disposal. The Jensen Quarry floor is flooded and is used as a recreational area for swimming and off-road vehicle use by trespassers. Barriers to entry of the facility are ineffective. Appendix A contains a complete account of the information obtained during the site reconnaissance. A second visit to the Riverside area was made to coordinate the groundwater sampling at the two adjacent facilities and the soil sampling at the Jensen Quarry.

6.3 SAMPLING

6.3.1 SUMMARY AND OBJECTIVE

FIT members collected soil and groundwater samples for this investigation on May 30, 1990. Upgradient groundwater was sampled from an irrigation well at the El Rivino Country Club approximately 0.5 miles north of the Crestmore Plant. Downgradient groundwater was sampled from the Yeager Construction Company's industrial well located approximately 0.2 miles south of the Crestmore Plant. Soil samples were collected at a suspected CKD disposal area at the Jensen Quarry, and from native soil adjacent to the quarry for background comparison. Soil samples of CKD were collected to document the levels of CERCLA-defined hazardous substances in this waste stream.

The objective of the sampling was to collect groundwater and soil samples to provide information about groundwater and on-site contamination, as well as waste characteristics information, to complete an rHRS evaluation of the site.

The specific objectives of the sampling effort were to:

- Sample existing upgradient and downgradient wells to document an observed release to groundwater from on-site disposal of CKD and refractory brick.
- Analyze samples of CKD to determine the leachability of metals from this waste and its total metal content.
- Analyze other accessible wastes for heavy metals to determine if a direct contact threat is posed by the site.

6.3.2 SAMPLE PLAN AMENDMENTS

Some derivation from the sample plan occurred. The location of the CKD sample was specified in the Sample Plan as the active CKD dump. However waste "raw feed" which is indistinguishable from CKD was also being disposed of in this location. Therefore the CKD sample was taken from the baghouse unloading hopper area where a more representative sample of this waste stream could be obtained.

At the time that the sample plan was written, the construction and static water level of the Yeager Construction well were unknown; however, during the FIT sampling visit to the Yeager facility, recent well maintenance records were located.

On May 24, 1988 the well was serviced and had a total depth of 217 feet with a 12-inch diameter and 65-foot depth to static water level. This yielded a wet casing volume of 294 gallons, necessitating a purge volume of 883 gallons prior to sampling. This information and the pumping rate of over 1,500 gallons per minute, as measured by FIT, eliminated the need for the 15 to 20 minutes of pumping specified in the sample plan to ensure proper purging.

Due to the unavailability of a Contract Laboratory Program (CLP) laboratory, the groundwater analysis for hexavalent chromium was not performed as specified in the sample plan (28).

6.3.3 SAMPLING PROCEDURES

Both wells sampled were sounded and then purged while pH, temperature, and conductivity were monitored. After these parameters were stabilized and at least three wet well casing volumes were evacuated, groundwater samples including duplicates and splits were collected in bottles, labeled, preserved to a pH of less than 2, taped, custody-sealed, packaged, and stored in sealed coolers. A field blank was collected and handled in the same manner at the downgradient sample location.

Soil samples, including the background, from the suspected CKD disposal area fill and the Crestmore CKD were all handled in a similar manner. Surface debris was removed from the collection point and a 6-inch by 6-inch area of soil was collected by trowel in a paper bucket and homogenized. Sample collection jars were then filled, labeled, taped, custody sealed, packaged, and stored in a sealed cooler. At the completion of sampling, splits were turned over to Riverside Cement representatives and the samples collected for CLP analysis were shipped to the laboratories.

7. EMERGENCY RESPONSE CONSIDERATIONS

The Riverside Cement Co. Crestmore Plant does not present any apparent circumstances which would warrant emergency response action. Levels of heavy metals in groundwater have not exceeded any health based benchmarks. The facilities air discharges are regulated by the Riverside County Air Pollution Control District and Riverside Cement has a good record of compliance. The Crestmore facility is fenced and continuously guarded reducing the potential for on-site exposure.

8. SUMMARY OF HRS CONSIDERATIONS

The Riverside Cement Co. Crestmore Plant has been an active cement manufacturing facility located in an outlying community of Riverside California since 1909.

Two waste streams from the manufacturing process have been disposed of on site. Approximately 250,015 tons of cement kiln dust have been disposed of in several disposal areas at the plant. Disposal of this material is ongoing (1,8). From 1955 until 1979, 48 cubic yards of basic refractory kiln brick containing approximately 10% hexavalent chromium were disposed of along with the cement kiln dust (1,3). One on-site disposal area is a limestone quarry which appears to have received waste at the historic groundwater elevation (3). Sampling by FIT of downgradient wells indicate that an observed release to groundwater has occurred (see Appendix D).

The facility generates dust in the process of managing large stockpiles of cement components and from disposing of waste cement kiln dust on site. However it is unlikely that this dust contains significant levels of CERCLA hazardous substances and the facilities dust generating processes are regulated by the local Air Quality Management District.

The site's most significant rHRS considerations include:

- Large waste quantity;
- High toxicity of hexavalent chromium;
- Observed release to groundwater;
- Community supply well located 0.4 miles from site;
- Moderate groundwater target population;
- Observed release to surface water; and
- Surface water used for agriculture.

9. EPA RECOMMENDATION

	Initial	Date
No Further Action Under CERCLA		
Higher-Priority LSI Under CERCLA	eyd	12/11/90
Lower-Priority LSI Under CERCLA		
Defer to Other Authority (e.g., RCRA, TSCA, NRC)		

Notes:

10. REFERENCES

1. Notification of Hazardous Waste Site, EPA form 8900-1, submitted by John K. Schmidt, Riverside Cement Co., June 8, 1990.

2. U.S. Geologic Survey, map of Fontana, California 7.5-minute quadrangle.

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5. Mackevett, Edward M., California Division of Mines, Geology of the Jurupa Mountains, February, 1951.

6. Riverside County Assessor's Office, assessment roll for the year 1989-1990.

7. California Department of Water Resources, to Richard A. Buerman, Santa Ana Regional Water Quality Control Board (RWQCB), letter, November 1, 1966.

8. Kulesza, Eugene, Riverside Cement Co., to Paul H. Brown, E & E FIT, letter, February 9, 1990.

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10. Soukprash, Suwan, California Department of Health Services, and Paul H. Brown, E & E FIT, telephone conversation, September 3, 1990.

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12. Poulter, S.E., Riverside Cement Co. to John M. Zasadzinski, Santa Ana Regional Water Pollution Board, letter, August 13, 1959.

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14. Hassel, Ray, South Coast Air Quality Management District, and Paul H. Brown, E & E FIT, telephone conversation, October 6, 1989.

15. O'Toole, Pat, Rubidoux Community Services District, and Paul H. Brown, E & E FIT, telephone conversation, May 3, 1990.

16. O'Toole, Patrick, Rubidoux Community Services District, to Paul H. Brown, E & E FIT, facsimile transmission, October 11, 1989.

10. REFERENCES (continued)

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18. Herring, John A., Riverside Cement Co. to John C. Boehm, RWQCB, Santa Ana Region, letter, January 14, 1990.

19. Adelson, Mark, RWQCB, Santa Ana Region, and Paul H. Brown, E & E FIT, telephone conversation, September 7, 1990.

20. Anderson, James W., RWQCB, Santa Ana Region, to Riverside Cement Co., letter, July 27, 1973.

21. Nakayama, Lillian, West Riverside Canal Company, to John A. Hering, Riverside Cement Co., letter, January 7, 1976.

22. Harper, Brooks, U.S. Fish and Wildlife Service, to Paul H. Brown, E & E FIT, letter, September 21, 1989.

23. Riverside Cement Company, topographic map of the Crestmore Plant and vicinity, general revision: February 7, 1990.

24. American Cement Corporation, "Crestmore, From Mine To Market" (undated).

25. U.S. EPA, Office of Toxic Substances, Graphical Exposure Modeling System, March 1989.

26. Ashbury, Joe, Riverside County Health Department, and Paul H. Brown, E & E FIT, telephone conversation, June 27, 1988.

27. Babcock, James K., Edward S. Babcock and Sons Laboratories, Analysis Results of Crestmore Wastewater, July 2, 1973.

28. Hedeen, Robie, U.S. EPA, and Paul H. Brown, E & E FIT, telephone conversation, May 24, 1990.

APPENDIX A

Contact Log and Reports

CONTACT LOG

Facility Name: Riverside Cement
Facility ID: CAD063844443

Name	Affiliation	Phone #	Date	Information
Joe Ashbury	Riverside County Health Department	714-369-1141	6/27/88	See Contact Report.
Henry Snyder	Rubidoux Comm. Serv. District	714-684-7321	7/6/88	See Contact Report
Gene Kulesza	Riverside Cement Diamond Bar	714-683-3660	7/10/89	Kulesza is the Cement Divisions regulatory manager. He suggested I contact Pat Hill, the plant manager and direct my inquiries through him.
Pat Hill	Riverside Cement	714-683-3600	7/12/89	Looking forward to site visit on August 9 and responding to our correspondence.
Mark Adelson	RWQCB	714-782-4130	7/12/89	See Contact Report.
Judy Iverson	Riverside County Health Hazardous Waste	714-358-5055	7/12/89	Iverson indicated that her office was not actively regulating Riverside Cement; but she is interested in following progress.
Bill Briaz	Riverside County Health Solid Waste	714-787-6543	7/13/89	Briaz indicated that Riverside Cement has been exempt; CKD's are an RCRA inert waste. He will make file copies and send them on.

pb/rc/clcr

CONTACT LOG (Cont.)

Facility Name: Riverside Cement Crestmore Plant
Facility ID: CAD063844443

Name	Affiliation	Phone #	Date	Information
Pat Hill	Riverside Cement	714-683-3660	7/21/89	Hill indicated that the 9 Aug. date for the visit was fine, and that he would be able to get his materials together by then and send them to me in advance. Pictures OK also; OK to dump sampling garbage in his trash.
Pat Hill	Riverside Cement	714-683-3660	7/27/89	Hill indicated that we would receive his response by Aug. 2 via Fed Ex. The visit is on for 8/9/90.
Mark Adelson	RWQCB Santa Ana	714-782-4130	8/2/89	Not sure about meeting Wednesday.
Ed Lau	DWR-LA	213-590-5132	8/3/89	Will send well logs directly to Doug Frazer.
Receptionist	SCAQMD Colton	714-877-1444 Perm 877-4677	8/4/89	Will have an agent call back.
Pat Hill	Riverside Cement		8/7/89	Visit is fine for 9:00 a.m. August 11.
Ray Hassell	SCAQMD	714-872-6000	8/7/89	See Contact Report.
Mark Adelson	RWQCB	714-782-4130	8/10/89	See Contact Report
Dick Zembel	U.S. Fish and Wildlife Service	714-643-4270	8/30/89	Zembel will send a letter describing habitats in the area.
Jack Cooper	U.C. Riverside Earth Sciences Library	714-787-1012	10/3/89	Copper will research groundwater data for the area.
David Lopez	Rubidoux Comm. Ser. District	714-684-7321	10/6/89	See Contact Report.

pb/rc/clcr

CONTACT LOG (Cont.)

Facility Name: Riverside Cement Crestmore Plant
Facility ID: CAD063844443

Name	Affiliation	Phone #	Date	Information
Pat Hill	Riverside Cement	714-861-2174	10/6/89	Hill indicated that by the end of November he would have the rest of the requested data sampling results.
Ted Pray	Yeager Const.	714-684-5360	10/9/89	See Contact Report.
Pat O'Toole	Rubidoux Comm. Service District	714-684-7321	10/11/89	O'Toole will send well logs and metal analysis of Scotty wells.
Bill Provenre	McCullach Bros. Pump and Drilling	714-793-2913	10/12/89	Will send logs and info. on Yeager and Riverside Cement wells.
Bill Provenre	McCullach	714-793-2913	10/30/89	Repeated request.
Jean White	Bookkeeper Crestmore Heights Water Company	714-686-2285	1/9/90	Wells on Riverside Cement Property are mine de-watering wells. Between 98 and 102 household service connections. Travis Oltman is President: 787-0309. Paul Tossetti, former Water Co. press., and Riverside Cement worker is familiarly with well construction.
Travis Oltman	President Crestmore Heights Water Company	714-787-0309	1/10/90	Two wells were put in in the 1950s; 250' and 300' deep. They are open-bottomed no screen, water level is approximately 20' bgs. The County requires analysis for BOD etc. The wells were originally mine de-watering wells.
Tom Yeager	Yeager Const.	714-684-5360	1/17/90	Tentatively OK for sampling on-site well.

pb/rc/clcr

CONTACT LOG (Cont.)

Facility Name: Riverside Cement Crestmore Plant
Facility ID: CAD063844443

Name	Affiliation	Phone #	Date	Information
Ted Pray	Yeager Const.	714-684-5360	1/18/90	See Contact Report.
Chuck Townsend	Green Acres Memorial Park	714-825-3024	1/26/90	A better well might be the El Rivino Country Club well; John Tuntland, is the Supervisor there.
Joane Davis/ Lea Laramore	Sunnyslope Ranchos	714-688-0050	2/7/90	Sunnyslope Ranchos does not own Quarry, only parcel to the west.
Walter Taylor	Pomona Valley Equipment (Site owner- Jensen Quarry)	714-591-7879	2/9/90	OK to collect sample; call the week ahead of time to arrange site access. Realtor in Pomona has key. No split necessary.
Bill Anderson	El Rivino Country Club	714-684-8905	2/15/90	See Contact Report.
Gene Kuleza	Riverside Cement	714-861-2179	4/19/90	OK to sample May 30.
Pat O'Toole	Rubidoux Community Services District	714-684-7321	5/3/90	See Contact Report.
Robbie Hedeen	EPA	415-556-5034	5/24/90	See Contact Report
Sam Bose	National Refractories	415-294-7544	8/30/90	Unable to give constituent data on refractory brick (10% CR+6) without type name.
Gene Kuleza	Riverside Cement	714-861-2174	8/30/90	Will call back with product name of refractory brick.
Suvan Soakprash	DHS	213-590-4989	9/3/90	See Contact Report.

pb/rc/clcr

CONTACT LOG (Cont.)

Facility Name: Riverside Cement Crestmore Plant
Facility ID: CAD063844443

Name	Affiliation	Phone #	Date	Information
Matthew Fry	City of Riverside Planning Dept.	714-782-5371	9/6/90	The average number of persons per household in Riverside is 2.835.
Mark Adelson	RWQCB	714-782-4130	9/7/90	See Contact Report.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Riverside County Public Health		
DEPARTMENT: Hazardous Waste		
ADDRESS/CITY: Riverside		
COUNTY/STATE/ZIP: California		
CONTACT(S)	**TITLE**	**PHONE**
1. Joe Ashbury	Health Officer	(714) 369-1141
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 6/27/88
SUBJECT:		
SITE NAME: Riverside Cement, Crestmore Plant		**EPA ID#:** CAD063844443

Mr. Ashbury indicated that Riverside County Health Dept. is the lead agency in the closure of Riverside Cement's 6-million-gallon #6 heating oil tank cleanup. 50,000 cubic yards of soil were excavated from 45 feet below the tank. The soil is stored in the on-site piles and will either be burned in the kiln on-site or at the Riverside Cement Oro Grande facility. The Ca. alternative technology office of DHS also oversaw the cleanup. The South Coast Air Quality Management District permitted the burning of the contaminated soil. No monitoring well was required as areas of contamination were obvious and easily removed. There was likewise no post removal sampling. A clay layer was present 45 feet below ground surface.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Rubidoux Community Services District		
DEPARTMENT:		
ADDRESS/CITY:		
COUNTY/STATE/ZIP: Riverside, California		
CONTACT(S)	**TITLE**	**PHONE**
1. Henry Snyder	President	(714) 684-7321
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 7/6/88
SUBJECT: Wells near Riverside Cement		
SITE NAME: Riverside Cement, Crestmore Plant		**EPA ID#:** CAD063844443

Mr. Snyder indicated that the Rubidoux county service area provides trash, garbage, sewer, and water services for the Rubidoux area. There are over 5,000 customers. Water for these people comes from two wells located at Via Ricard and Fleetwood Road and at Wilson Road and Fleetwood. These are slightly less than 1 mile from Rubidoux and El Rivino Road. (Riverside Cement) to the east, near the water. These wells are 250′ deep. They have a cement sanitary seal down to 50′ and are screened from 50′- 250′.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: RWQCB Santa Ana Region		
DEPARTMENT: Staff Engineering		
ADDRESS/CITY: Riverside		
COUNTY/STATE/ZIP: Riverside/California		
CONTACT(S)	**TITLE**	**PHONE**
1. Mark Adelson	Staff Engineer	714-782-4130
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 7/12/89
SUBJECT: Enforcement actions at Riverside Cement		
SITE NAME: Riverside Cement Crestmore		**EPA ID#:** CAD0063844443

Mr. Adlerson indicated that RWQCB is in the process of starting an investigation into hexavalent chromium contamination migrating from the plant to an off-site irrigation well.

Within 45 days he is planning to do some sampling of nearby wells and a groundwater flow analysis. He also plans to sample water in the open pits. He is looking forward to going on the site visit.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: South Coast Air Quality Management District (SCAQMD)		
DEPARTMENT: Colton office Enforcement Branch		
ADDRESS/CITY: Colton		
COUNTY/STATE/ZIP: Riverside/California		
CONTACT(S)	**TITLE**	**PHONE**
1. Ray Hassel		714-872-6000
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 8/7/89
SUBJECT: Permits/Violations		
SITE NAME: Riverside Cement Crestmore		**EPA ID#:** CAD063844443

Mr. Hassel indicated that he has overseen the Riverside Cement Plant's enforcement for the past two years. No violations have been issued in that time. He knew of one dust emission violation three years ago but no others.

The only violations he could possibly cite the plant for would be visible dust emissions (rule 403) migrating off Riverside Cement property. In the past year he has received two dust complaints. Both times he went out to inspect and did note this as a problem. He indicated that the Cement plant is located on the west side of the facility property. The wind blows from west to east; so most dust settles within the property boudaries. Some nearby junkyards are covered in dust, indicating that dust generally does migrate offsite. The SCAQMD's permits cover the facility's stockpiles and processing equipment, conveyors, crashers, kilns, etc.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: CA RWQCB, Santa Ana Region		
DEPARTMENT:		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Mark Adelson	Staff Engineer	(714) 782-4130
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 8/10/89
SUBJECT: Interview notes concerning Riverside Cement		
SITE NAME: Riverside Cement, Crestmore Plant		**EPA ID#:** CAD063844443

Mr. Adelson indicated that the 1965 sampling that showed Cr^{+6} in well #60-1 had very questionable QA/QC and was therefore unreliable. This data has continued to keep Riverside Cement in the focus of public attention however. He is therefore recommending to the Board that a sampling of several nearby wells be conducted in the near future. In addition to the wells most likely to contain Cr^{+6}, the flooded quarry and fish from the quarry will also be recommended for sampling.

The quarry area is geologically very complex. The quarry (Crestmore) was flooded when excavations met a very deep artesian aquifer which is of excellent quality. He is unaware of any disposal of CKD in the Crestmore quarry.

Mr. Adelson Mark does not believe chromium or lead will be a problem in CKD due to the covalent bonding effect of the highly alkaline minerals in CKD. RWQCB regulation has covered several on-site processes including disposal of waste kiln brick, CKD, cooling water, sanitary waste and mine de-watering wastewater.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Rubidoux Community Service District		
DEPARTMENT: President		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Dave Lopez	President	714-684-7321
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 10/6/89
SUBJECT: Well Use		
SITE NAME: Riverside Cement		**EPA ID#:** CAD063844443

Mr. Lopez indicated that the Scotty Well on Via Ricard and Fleetwood was shut down in 1988 by DHS due to high nitrate levels. The District still uses a well field at the corner of Daily and 34th streets (approximately 2 miles south of site). He will have Pat O'Toole contact me to forward results of DHS sampling and well logs.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Yeager Construction		
DEPARTMENT: Facilities		
ADDRESS/CITY: Riverside		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Ted Pray	Supervisor	714-684-5360
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 10/9/89
SUBJECT: Wells on Yeager Property		
SITE NAME: Riverside Cement Crestmore		**EPA ID#:** CAD063844443

Mr. Pray indicated that he believed a well was installed on site in the 1960s but that it was shut down. The company is hooked up to the Jurupa Community Service District Water Service. He will try to locate the well log and a location diagram and find out if the pump still works.

10/12/87

Mr. Pray indicated that the well is located 50' to 100' from their gate on Agua Mansa, North, and that it was recently refurbished by McCulloch Bros. Drilling-Redlands: 714-793-2913.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Yeager Construction		
DEPARTMENT: Operations		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Ted Pray	Supervisor	714-684-5360
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 1/18/90
SUBJECT: On-site Well use		
SITE NAME: Riverside Cement, Crestmore		**EPA ID#:** CAD063844443

Mr. Pray indicated that the on-site well pumps into a pressurized tank. This water system is used only to wash off trucks and other equipment in a drive through wash rack. The pump is usually in operation from 8-11 and from 1-5. The wash rack runoff goes into a sump/clarifier and is then used for road spray to control dust. This system is approved by the RWQCB. The pump switch is in a separate area. He suggested that, upon arriving on site, I should either contact him, Tom Yeager, or Jerry Dunbar. There is no problem with sampling and he is looking forward to meeting, possibly the week of 2/27/90.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: El Rivino Country Club		
DEPARTMENT:		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Bill Anderson	Maintenance Manager	714-684-8905
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 2/15/90
SUBJECT: Well sampling		
SITE NAME: Riverside Cement		**EPA ID#:** CAD063844443

Mr. Anderson indicated that it would be ok to sample his well. It is normally in operation from approximately 6 p.m. to 5 a.m. Sampling early in the morning would be fine. He will try to find some well construction data, as well as past analyses reports. He said the meeting on Tuesday would be ok, but I should call before.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Rubidoux Community Services District		
DEPARTMENT: Engineering		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Pat O'Toole	Services Engineer	714-684-7321
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 5/3/90
SUBJECT: Well location, use		
SITE NAME: Riverside Cement		**EPA ID#:** CAD0363844443

Mr. O'Toole indicated that the well field at 34th and Daily had been abandoned 10 years ago. The fields at 36th and Daily, two blocks south, and 34th and Crestmore, three blocks east, are currently active. Pat will send well logs and most recent analytical results for metals. The distance from the well at 34th and Crestmore, to the site (Crestmore facility) is 3.75 miles.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: U.S. EPA		
DEPARTMENT: Quality Assurance Management Section		
ADDRESS/CITY: San Francisco		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Robbie Hedeen		556-5034
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 5/24/90
SUBJECT: Laboratory Availability		
SITE NAME: Riverside Cement		**EPA ID#:** CAD063844443

Because no CLP labs bid on the SAS portion of the analyses for Riverside Cement, no laboratory can be obtained for the hexavalent chromium analysis before the samples 24 hour holding time has been exceeded.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: Department of Health Services (DOHS)		
DEPARTMENT: Site Mitigation Unit		
ADDRESS/CITY:		
COUNTY/STATE/ZIP:		
CONTACT(S)	**TITLE**	**PHONE**
1. Suwan Soukprash	Tech. Information Officer	(213) 590-4989
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 9/3/90
SUBJECT: DOHS Involvement with site.		
SITE NAME: Riverside Cement, Crestmore Plant		**EPA ID#:** CAD063844443

Mr. Soukprash indicated that DHS does have a file on Riverside Cement, but it is not active. There is no lead by DHS. The site is not listed on the California Bond Expenditure Plan.

pb/rc/clcr

CONTACT REPORT

AGENCY/AFFILIATION: RWQCB		
DEPARTMENT: Santa Ana Region		
ADDRESS/CITY: Riverside		
COUNTY/STATE/ZIP: Riverside, California		
CONTACT(S)	**TITLE**	**PHONE**
1. Mark Adelson	Staff Engineer	(714) 782-4130
2.		
E & E PERSON MAKING CONTACT: Paul H. Brown		**DATE:** 9/7/90
SUBJECT:		
SITE NAME: Riverside Cement, Crestmore Plant		**EPA ID#:** CAD063844443

I described the metals levels that were detected in our sampling, and asked what RWQCB was doing at the site. Mr. Adelson indicated that due to staffing problems he has not been able to put together a proposal for the sampling he planned earlier. RWQCB currently regulates only the facility's sewage treatment plant and surface impoundment for compressor cooling water.

He indicated that the low levels of metals detected (all below drinking water standards), are not likely to stir the board into taking any action with Riverside Cement. He further indicated that these low levels of metals may be attributable to natural mineral levels in the limestone's effect on water quality.

pb/rc/clcr

SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT

Ecology and Environment, Inc.		
Field Investigation Team (FIT)		
160 Spear Street, Suite 1400		
San Francisco, California 94105		
(415) 777-2811		
E & E PERSON(S) CONDUCTING INTERVIEW AND MAKING OBSERVATIONS:		
Paul H. Brown, Toner Mitchell, Laurie Campbell		
FACILITY REPRESENTATIVE(S):	**TITLE:**	**PHONE:**
Eugene M. Kulesza	Regulatory Manager	714-683-3660
Patrick M. Hill	Plant Manager	
Pat Cafferty	Corporate Counsel	
SITE NAME: Riverside Cement Co. Crestmore		**DATE:** 8/11/89
CITY/STATE: Riverside, California		**EPA ID#:** CAD063844443

The following information was obtained during the interview:

Pat Hill began with an overview of the plants. Limestone is no longer mined on site. The Crestmore Mine, which began operations in 1927, reached a depth of 1,500 feet below ground surface, 600 feet below sea level.

Cement "raw feed" is composed of 90% limestone, 9% clay, and 1% iron oxide (Fe_2O_3). Since the mine shut down, all raw feed components are imparted to the site, stored, crushed, homogenized, and blended together in the stockpiles. When ready the raw feed is heated in the kiln and becomes "klinker". This is also stored in piles until it is ground up and mixed with gypsum to form finished cement. This mixture is stored in silos prior to bagging, or shipped in bulk.

Currently the only kilns in operation at the site are two white cement kilns. These kilns have never been lined with "basic" or chromium-containing bricks. The price of white cement is twice that of grey cement due to its demand for swimming pools and buildings.

Cement kiln dust is highly alkaline dust which is removed from cement kilns in order to lower the pH of the final cement product. This is not always necessary and sometimes no cement kiln dust is generated.

pb/pc/recon

The Wet Weather Quarry became a solid waste dump sometime in the late 1960s. It received cement kiln dust as well as "basic" and regular refractory bricks.

Pat Cafferty indicated that, based on Riverside Cement's research of old invoices, "basic" bricks were probably first used around 1964 when #1 and #2 grey kilns began operation. Therefore, the 48 cubic yards of basic brick disposed on site referred to in Riverside's CERCLA notification is likely an overestimation. he added that this is considered a conservative estimate. There are several manufacturers Riverside used to obtain basic bricks: Harbison, Walker, North American Refractories, and Kaiser Refractories.

Pat Cafferty explained that the Wet Weather Quarry is still used for Cement Kiln Dust disposal, but ceased receiving bricks in 1979. Since 1979, basic bricks have either been drummed and manifested for off-site disposal, or recycled into the raw feed either here or at the Oro Grande Riverside Cement Plant. Here recycling was directly into the raw feed piles. Some raw feed dust is recirculated via a baghouse into the kiln feed. Spilled kiln dust is removed and collects in a dust pile.

The current net deposits of white dust to the Wet Weather Quarry disposal area is between 1,500 to 1,800 tons per year.

Disposal at the Commercial Quarry began at an unknown date and ended in approximately 1968. All bricks generated during these years were disposed of at the commercial quarry. Bricks still exist in this quarry, there despite reclamation.

Pat Hill, Pat Cafferty, and Gene Kulesza know of no other disposal sites operated by the Riverside Cement Co. The Jensen Quarry was sold in 1986 or 1987. The water table is found from 60 to 80 feet below ground surface from the Wet Weather Quarry surface. Pat Hill does not believe the bottom of the Wet Weather Quarry exceeds 80 feet below ground surface.

The Crestmore facility recently completed a fairly extensive air pollution study: to check sulfur oxide, nitrogen oxide, and carbon monoxide levels in stack emissions.

The California Department of Heath Services, Alternative Treatment Technology Evaluation Office has overseen the removal of the 6-million-gallon heating oil tank.

Gene Kulesza will attempt to obtain logs of on-site wells.

When presented with the Truesdail Lab report which indicated 4,600 part per million (ppm) lead in white dust from Crestmore, both Gene Kulesza and Pat Hill were concerned about the accuracy of the analysis. Their conjectured, a possible source of the lead but rejected that idea. During the operation of the kiln, molten cement cakes up on the interior surface of the kiln. To reduce the build-up, a large caliber shotgun mounted at the cool end of the kiln fires lead slugs at the

caked up build-up to reduce it. This source was debated, then rejected, due to the small amount of introduced lead possible from this source. When I conjectured that the steel mill slag (FE_2O_3) component of the raw feed was a possible source of the lead, Pat Cafferty indicated that the lead was more likely originating in the limestone than with the shotgun. The firing rate was approximately 30 pounds per minute.

The following observations were made during the site reconnaissance visit:

At 11:30 a.m. the facility representatives and FIT boarded a van owned by Riverside Cement for a tour of the plant. The first area visited was the white cement plant. The general area was covered with fine white powder. The #2 white cement kiln was shut down for maintenance; #1 was producing and was being cleaned out.

At 11:45 the group visited the flooded entrance to the Crestmore Mine. The area is fenced. Catfish are stocked to control insects.

At 11:54 the group visited an area of the Commercial Quarry. CKD had been disposed of in this area, along with improperly proportioned raw feed, and reclaimed at a later date. A lot of CKD is still present.

At 12:02 the group observed the discharge point where mine de-watering water was formerly discharged to the West Riverside Canal.

At 12:15 the group visited the lower quarry area of the Commercial Quarry. The quarry floor is under water and considerable mature vegetation is present, indicating that the water was not of a seasonal nature, but rather was inflow from groundwater.

At 12:25 the group moved to the Wet Weather Quarry and observed a truck discharge a load of CKD; a large dust cloud was generated. A fairly large earth moving project has recently placed fill in between the Wet Weather and Commercial quarries. Patrick Hill indicated that this was part of a longterm reclamation project. Standing water was also observed in the bottom of the Wet Weather Quarry. Reeds and trees were also growing there.

At 12:50 the group drove to well #88-1. The well head pressure read 40 pounds per square inch (PSI). A 2" valve was located near the well head. The klinker storage piles could be seen from this point. The three-southernmost piles in this area hold oil-contaminated soil from the 6-million-gallon #6 heating oil tank after it was removed.

At 1:00 the group visited well #60-1.

At 1:12 the group visited the blowdown pond which contained condensed steam which had been used to heat heating oil prior to its use in the kiln. The pond is cement-lined with adequate free board, and measured approximately 20′ x 20′ x 3′ deep. The water in the pond contained floating chunks of oil globules which came from a leak in the oil heating system.

pb/pc/recon

At 1:30 the group returned to the office and departed the Crestmore Plant.

At 1:45 FIT visited the Jensen Quarry and noted areas of imported white fill dirt (possibly containing CKD) and teenagers swimming in the water covering the quarry floor. The fence surrounding the Quarry was torn down in several places and the area appeared to receive considerable off-road vehicle use.

At 2:00 FIT departed the Jensen Quarry.

pb/pc/recon

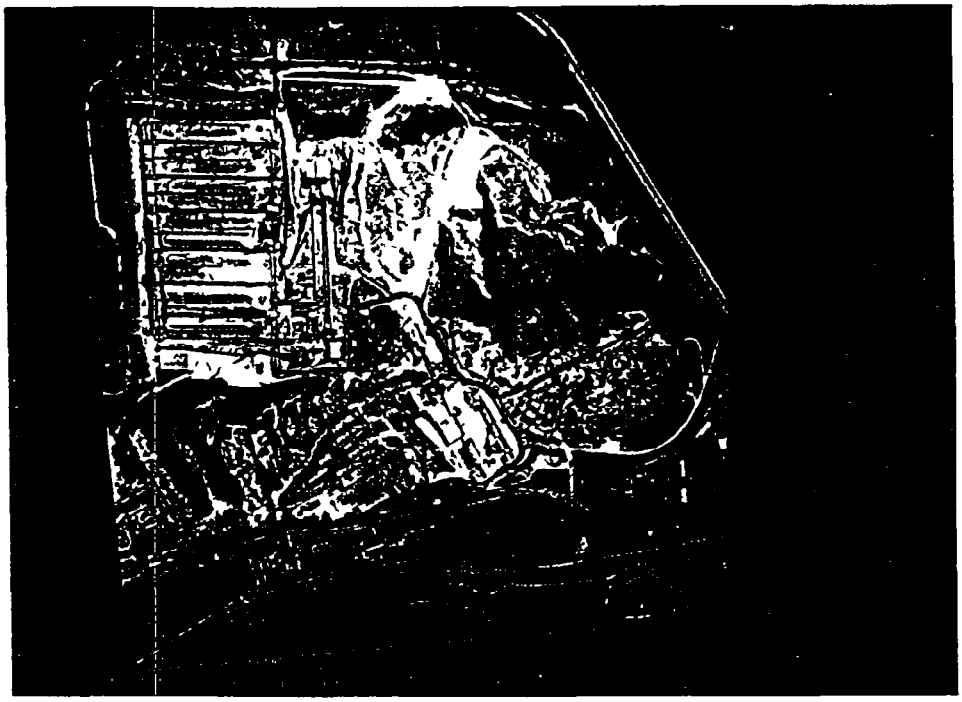
APPENDIX B

Photodocumentation

FIELD PHOTOGRAPHY LOG SHEET

DATE: 8/11/89

TIME: 9:00 AM



PHOTOGRAPHED BY:

Laurie Campbell

DESCRIPTION:

Photograph of large scale, aerial photo of Crestmore facility. Note the active entrance to the Crestmore mine, CKD disposal area in the Wet Weather Quarry.

DATE: 8/11/90

TIME 11 30 AM

DIRECTION:

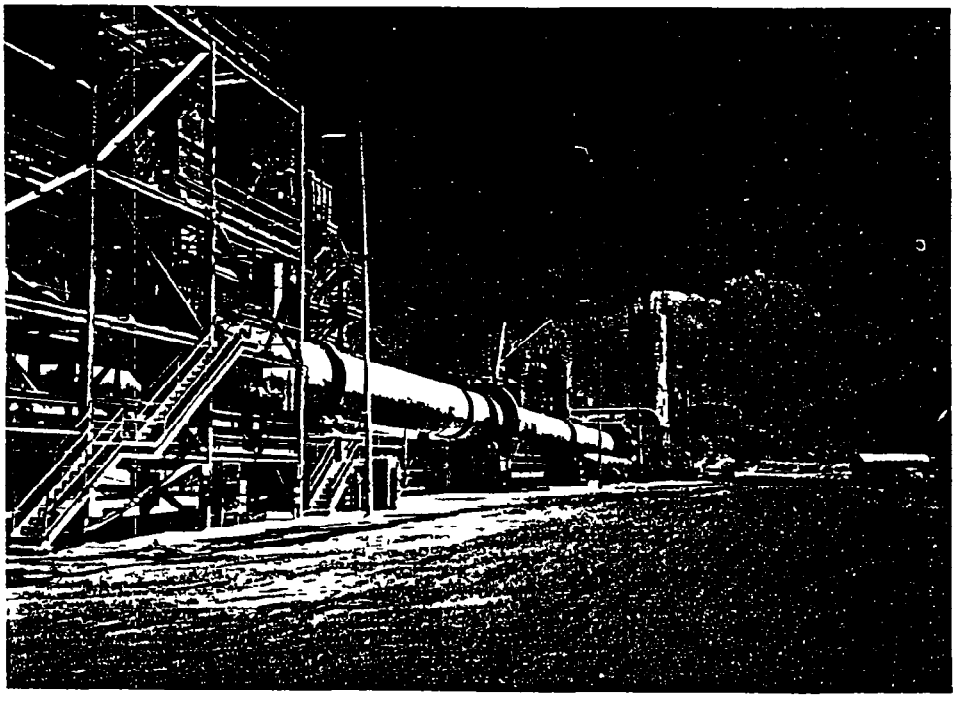
northeast

WEATHER: clear,

sunny

PHOTOGRAPHED BY.

Laurie Campbell



DESCRIPTION:

One of two active white cement kilns on-site.

pb/pc/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 8/11/90

TIME: 11·45 AM

DIRECTION:

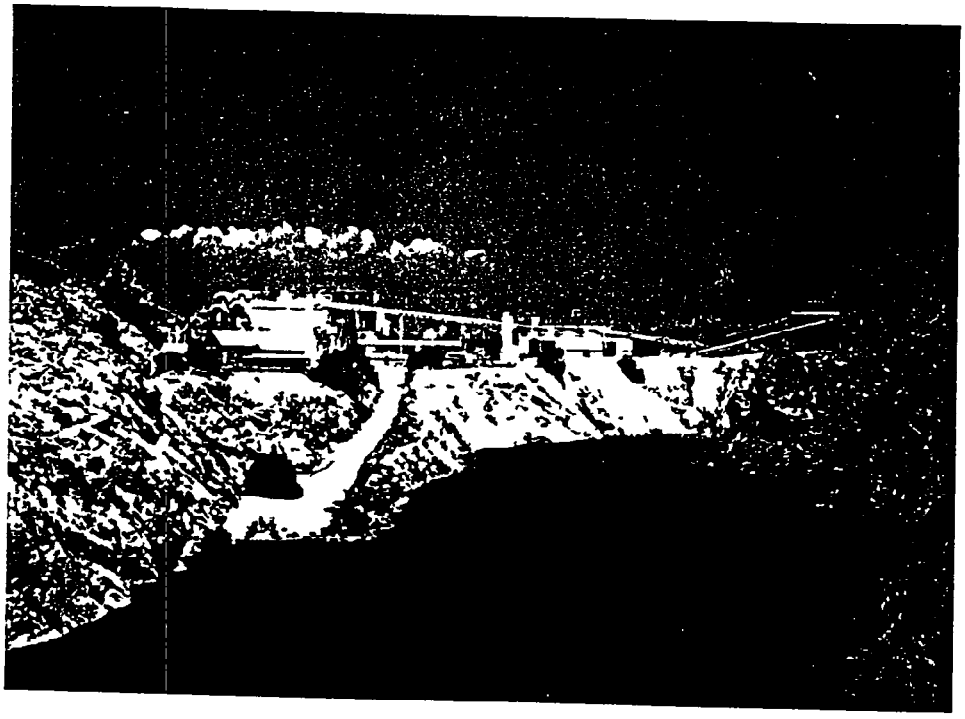
north

WEATHER: sunny,

clear

PHOTOGRAPHED BY:

Laurie Campbell



DESCRIPTION:

The flooded entrance to the Crestmore Mine. Note the haul road and the CKD disposal along the north edge of the lake. The white cement kiln is in the background.

DATE: 8/11/90

TIME 12:02 PM

DIRECTION:

southeast

WEATHER: sunny,

clear

PHOTOGRAPHED BY:

Laurie Campbell



DESCRIPTION:

Former discharge point to the Riverside Canal for: water pumped from the Crestmore mine, and blowdown water found to contain excess chromium.

pb/pc/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 8/11/90

TIME: 12:14 PM

DIRECTION:

northeast

WEATHER: sunny,

clear

PHOTOGRAPHED BY:

Laurie Campbell



DESCRIPTION:

Flooded Commercial Quarry. Note overburden, raw feed, kiln bricks and CKD disposal throughout quarry area.

DATE. 8/11/90

TIME 12:25 AM

DIRECTION:

northwest

WEATHER: sunny,

clear

PHOTOGRAPHED BY:

Laurie Campbell



DESCRIPTION:

Active CKD disposal area (white soil) in background. Note tank car about to discharge CKD. In the foreground is recent earthwork progress on a long system is in right background. The Wet Weather Quarry is to the right; in Commercial Quarry is to the left.

pb/pc/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 8/11/90

TIME: 1:12 PM

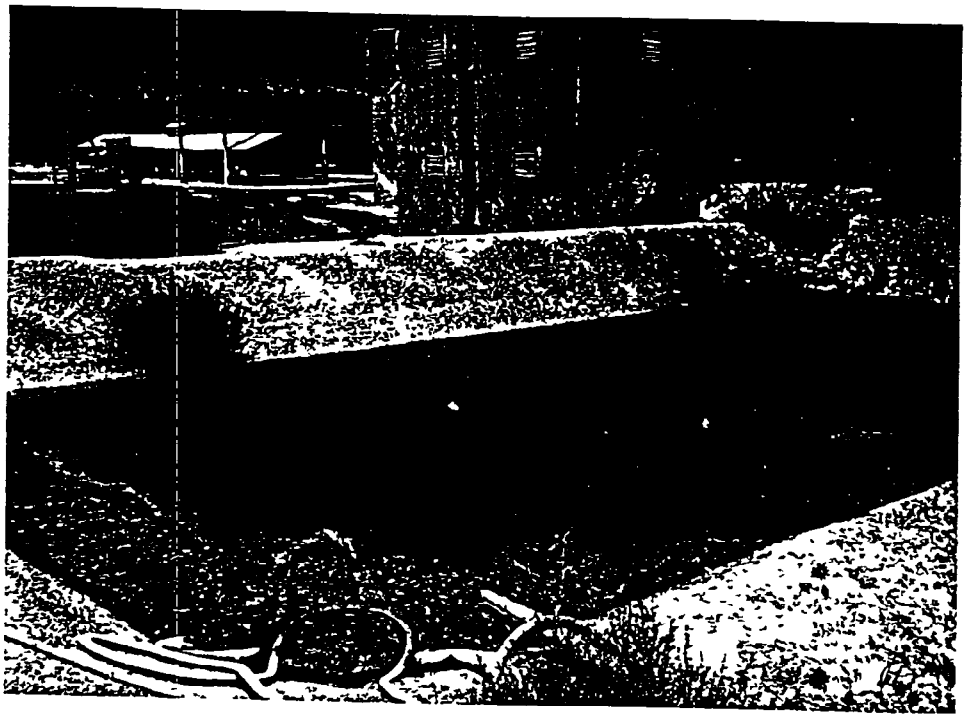
DIRECTION:

northwest

WEATHER: sunny, clear

PHOTOGRAPHED BY:

Laurie Campbell



DESCRIPTION:

Blowdown pond for condensed steam used to heat the bunker oil used to fire the kiln.

DATE: 5/30/90

TIME 7:42 AM

DIRECTION:

N/A

WEATHER: overcast

PHOTOGRAPHED BY:

Laurie Campbell

SAMPLE ID#:

R-1



DESCRIPTION:

Collection of upgradient groundwater sample R-1 at the El Rivino Country Club.

pb/pc/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 5/30/90

TIME: 7:30 AM

DIRECTION:

N/A

WEATHER:

overcast

PHOTOGRAPHED BY:

Peter Towle

SAMPLE ID#:

R-1



DESCRIPTION:

Checking pH, conductivity, and temperature during well purging at the El Rivino Country Club well.

DATE: 5/30/90

TIME 7:55 AM

DIRECTION:

N/A

WEATHER: overcast

PHOTOGRAPHED BY:

Peter Towle

SAMPLE ID#:

R-1



DESCRIPTION:

Checking pH of water samples at the background location during sample preservation.

pb/pc/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 5/30/90

TIME: 9:17 AM

WEATHER:

overcast

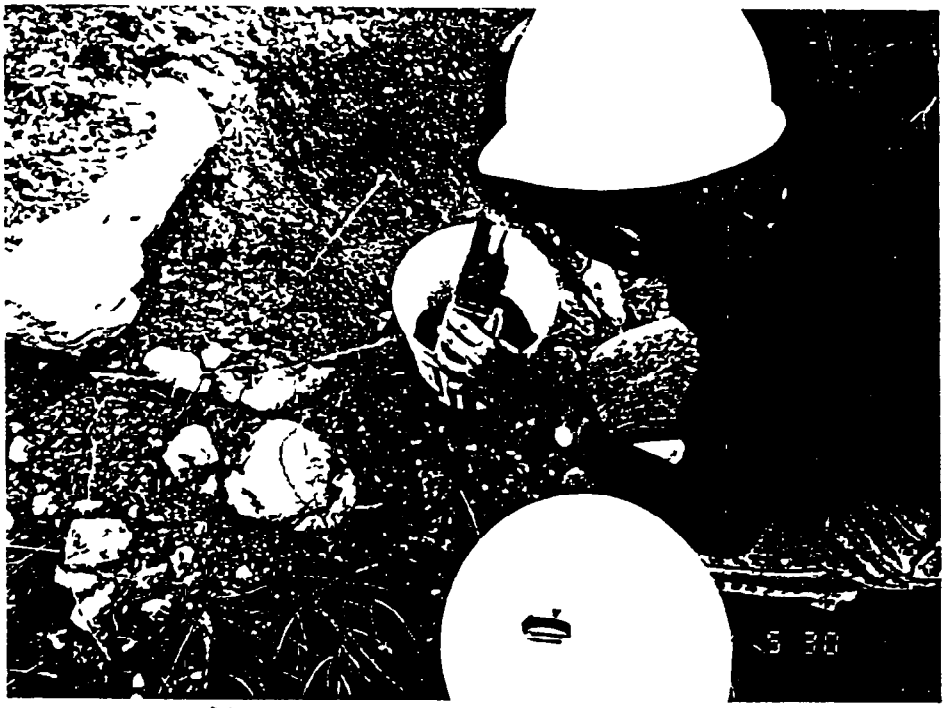
PHOTOGRAPHED BY:

Paul H. Brown

SAMPLE ID#:

BD-1

DESCRIPTION:



Collection of background soil sample BD-1 west of the Jensen Quarry.

DATE: 5/30/90

TIME 9·25 PM

DIRECTION:

east

WEATHER: sunny,

clear

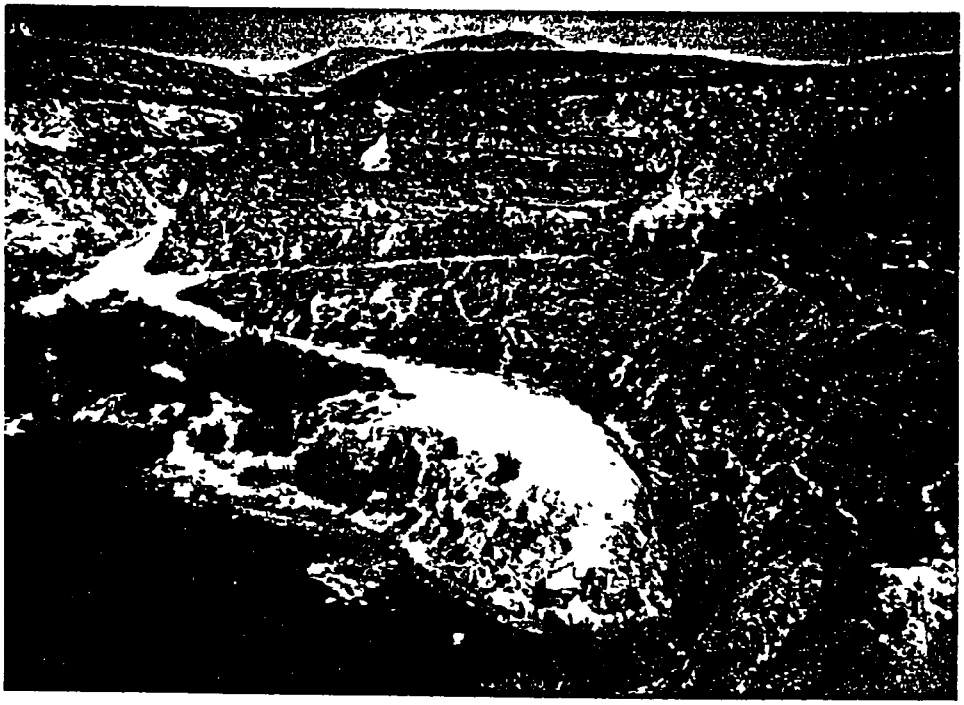
PHOTOGRAPHED BY:

Paul H. Brown

SAMPLE ID#:

JD-1

DESCRIPTION:



Flooded Jensen Quarry, JD-1 soil sample location was taken in fill area in the upper right hand corner of photo.

pb/pc/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 5/30/90

TIME: 10:30 AM

DIRECTION:

N/A

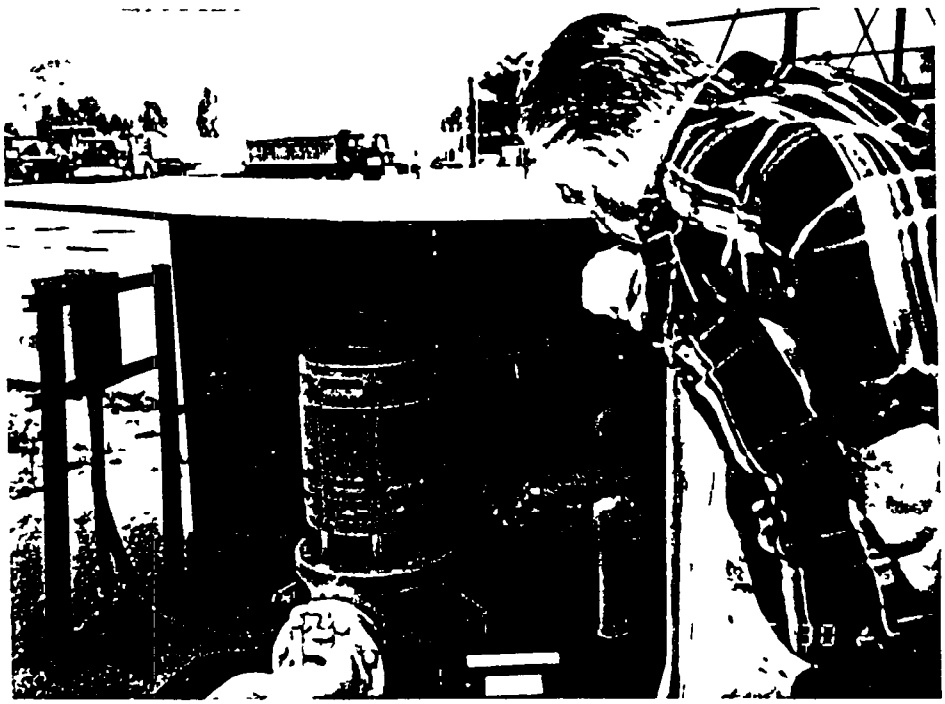
WEATHER: hazy

PHOTOGRAPHED BY:

Janet Kaps

SAMPLE ID#:

Y-1



DESCRIPTION:

Sounding of Yeager Construction well prior to purging.

DATE: 5/30/90

TIME 10:45 AM

DIRECTION:

N/A

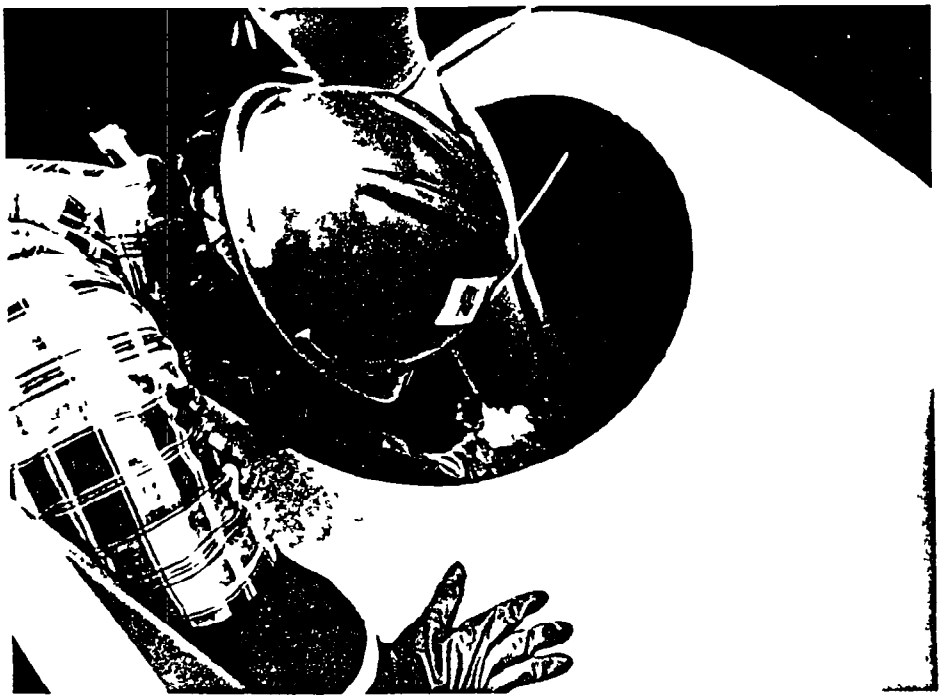
WEATHER: hazy

PHOTOGRAPHED BY:

Paul H. Brown

SAMPLE ID#:

Y-1



DESCRIPTION:

Collecting downgradient water sample Y-1 at the Yeager Construction Company well.

pb/pc/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 5/30/90

TIME: 11:06 AM

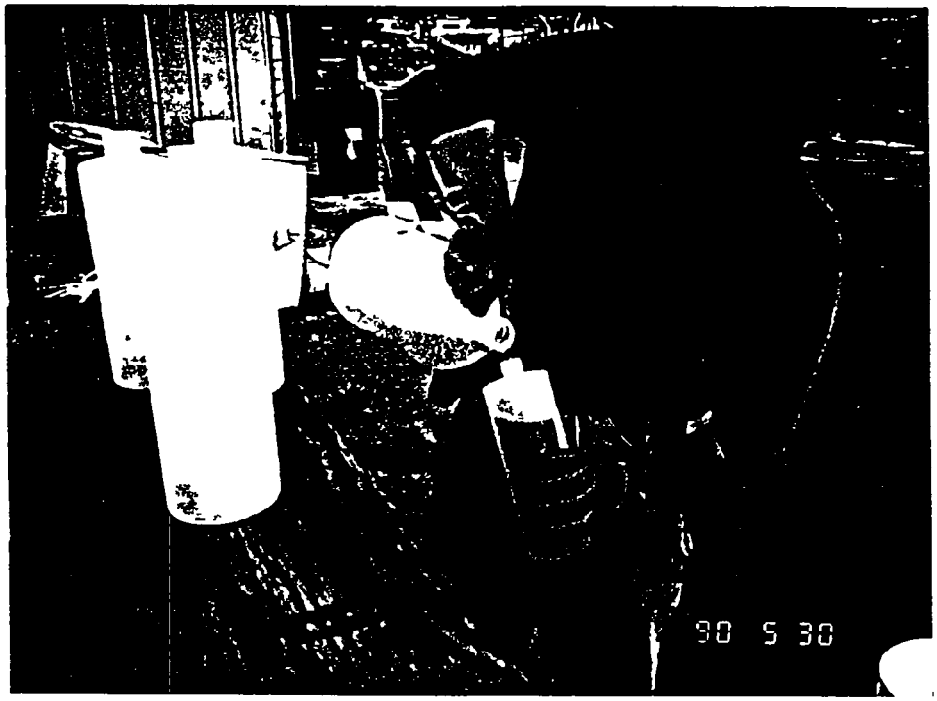
WEATHER: hazy

PHOTOGRAPHED BY:

Paul H. Brown

SAMPLE ID#:

B-1



DESCRIPTION:

Collection of Blank water sample at Yeager Construction yard area.

DATE: 5/30/90

TIME 12:36 PM

WEATHER:

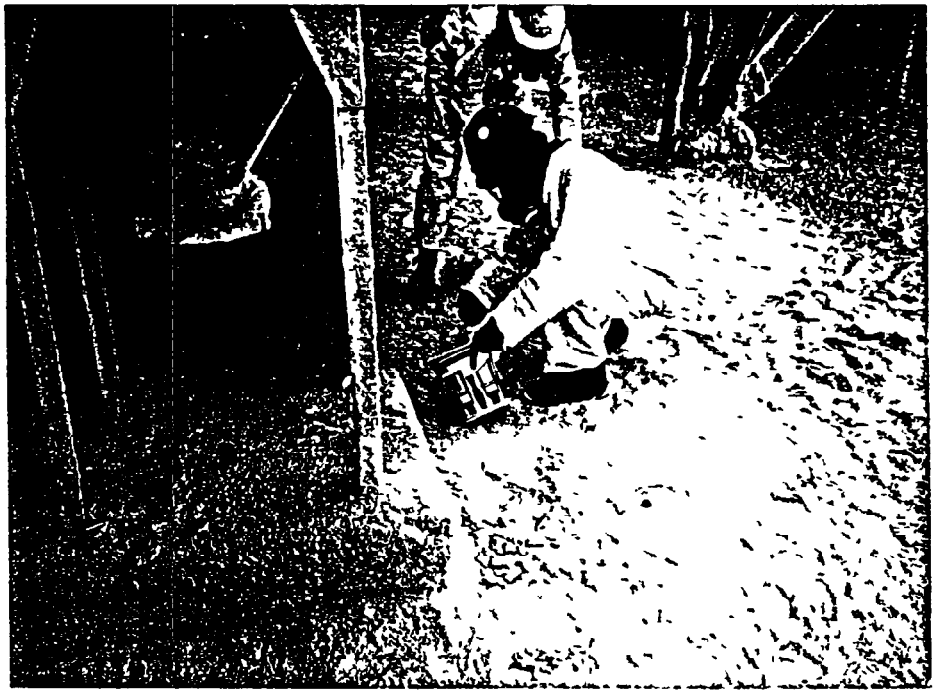
hazy

PHOTOGRAPHED BY:

Paul H. Brown

SAMPLE ID#:

CD-1



DESCRIPTION:

Collection of Cement Kiln Dust Sample CD-1 at the loading point where trucks collect CKD from the baghouse.

pb/pc/fpls

FIELD PHOTOGRAPHY LOG SHEET

DATE: 8/11/90

TIME: 12:25 PM

DIRECTION:

west

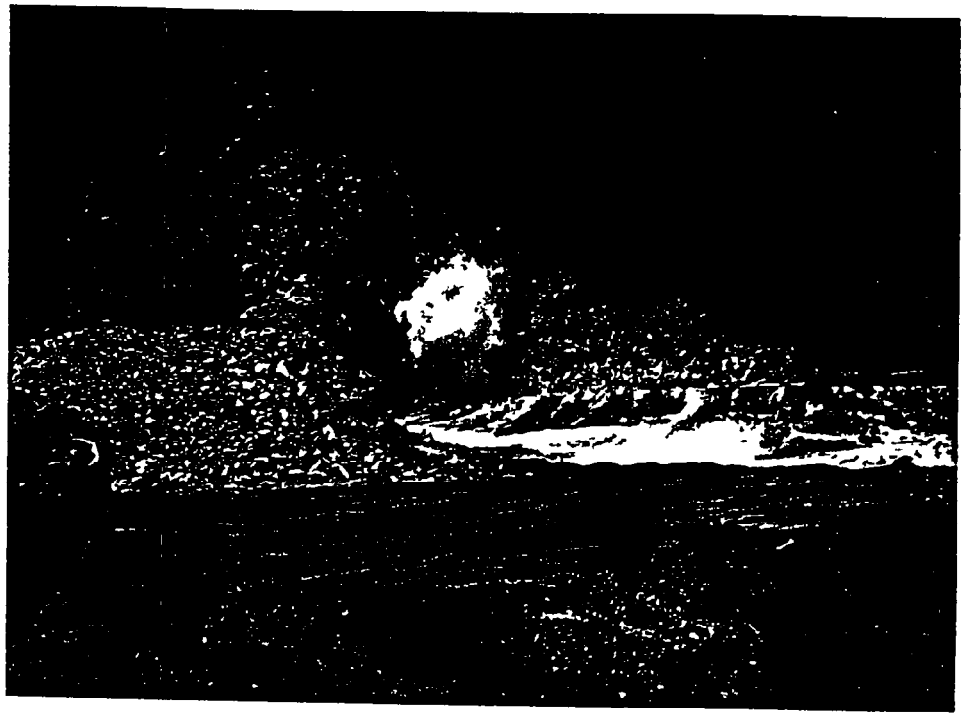
WEATHER: sunny,

clear

PHOTOGRAPHED BY:

Laurie Campbell

SAMPLE ID#:



DESCRIPTION:

Airborne CKD during off-loading in the active CKD disposal area.

DATE: 8/11/90

TIME 12:30 PM

DIRECTION:

north

WEATHER: sunny,

clear

PHOTOGRAPHED BY:

Laurie Campbell



DESCRIPTION:

Bottom of Wet Weather Quarry. Note CKD waste raw feed and possibly basic brick containing hexavalent chromium disposed of in contact with standing water in the bottom of the quarry. This water is possibly in communication with the groundwater table.

pb/pc/fpls

APPENDIX C

Sampling and Analysis Plan

160 Spear Street Suite 1380
San Francisco California
94105-1535

415 957-0110

ICF TECHNOLOGY INCORPORATED

MEMORANDUM

TO Carolyn Douglas, (H-8-1)
Site Assessment Manager

THROUGH Kent Kitchingman, Chief (P-3-2)
Quality Assurance Management Section

FROM Susan M Sanders
ESAT Investigation Coordinator

DATE May 25, 1990

SUBJECT Review of Final Revisions to Riverside Cement Sampling and Analysis Plan

The revised SAP for Riverside Cement has been reviewed and is approved for use A typographical error on Table 4-1 has been discussed with the sample plan author It is understood that the preservative to be used should be added to bring the sample pH to a level below 2, not greater than 2 as stated on the revised table

Questions regarding this review should be addressed to me at 957-0110

cc. Tom Huetteman, QAMS Task Monitor
Paul Brown, Ecology and Environment SAP Author

Purpose: CERCLA Screening Site Inspection
Sample Plan

Site: Riverside Cement Co. Crestmore Plant
1500 Rubidoux Blvd.
Riverside, CA 92502

Site EPA ID Number:	CAD0638443
TDD Number:	F9-8906-067
Program Account Number:	FCA1233SAA
FIT Investigators:	Paul H. Brown Janet Kaps Peter Towle
Date of Inspection:	May 30, 1990
Report Prepared By:	Paul H. Brown
Report Date:	May 10, 1990
FIT Review/Concurrence:	5/18/90
Submitted To:	Carolyn Douglas Site Assessment Manager EPA, Region IX

U.S. ENVIRONMENTAL PROTECTION AGENCY REGION IX
TOXICS & WASTE MANAGEMENT DIVISION
FIELD OPERATIONS BRANCH

Sample Plan Title: Soil, Groundwater and Waste Stream Sampling

Site Name: Riverside Cement Co. Crestmore Plant

Site Location: 1500 Rubidoux Blvd.

City/State/Zip: Riverside, CA 92502

Site EPA ID#: CAD06384443

Anticipated Sampling Dates: May 30, 1990

Prepared By: Paul H. Brown Date: May 10, 1990

Agency Or Firm: Ecology and Environment, Inc.

Address: 160 Spear Street

City/State/Zip: San Francisco, CA 94105

Telephone: 415-777-2811

EPA Project Manager: Carolyn Douglas Section: T-4-7 Phone: >

QAPjP Approval Date: >

FIT Review/Concurrence: >

* *

FOR EPA USE ONLY

Received By Superfund Project Manager >

Reviewed By: _____ > Date

APPROVED/NOT APPROVED Date 5/25/90

* *

Expedited Review? Yes/No

Received By Quality Assurance Management Section: >

Reviewed By: _____ > Date

APPROVED/NOT APPROVED Date 5/25/90

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Chief, Quality Assurance
Management Section
Environmental Services Branch, OPM

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TABLE OF CONTENTS

Section		Page
1	OBJECTIVE OF SAMPLING EFFORT	1-1
2	BACKGROUND	2-1
	2.1 SITE AND OWNERSHIP HISTORY	2-1
	2.2 WASTE MANAGEMENT HISTORY	2-3
	2.3 APPARENT PROBLEMS	2-4
3	HAZARD RANKING SYSTEM (HRS) FACTORS	3-1
	3.1 WASTE CHARACTERISTICS	3-1
	3.1.1 CKD Sampling	3-1
	3.2 GROUNDWATER PATHWAY	3-2
	3.2.1 Groundwater Sampling	3-6
	3.3 SURFACE WATER PATHWAY	3-7
	3.4 AIR PATHWAY	3-8
	3.5 ON-SITE PATHWAY	3-10
4	REQUEST FOR ANALYSES	4-1
	4.1 GROUNDWATER SAMPLE ANALYSES	4-1
	4.2 SOIL SAMPLE ANALYSES	4-3
5	METHODS AND PROCEDURES	5-1
	5.1 GROUNDWATER SAMPLING AT OFF-SITE IRRIGATION AND INDUSTRIAL WELLS	5-1
	5.1.1 Well Purging Procedures	5-1
	5.1.2 Obtaining Samples	5-2
	5.1.3 Decontamination	5-2
	5.2 SURFACE SOIL GRAB SAMPLING	5-2
	5.2.1 Obtaining Samples	5-2
	5.2.2 Decontamination	5-3
6	DISPOSAL OF INVESTIGATIVE DERIVED WASTE	6-1
7	SAMPLE DOCUMENTATION AND SHIPMENT	7-1
	7.1 FIELD LOGBOOKS	7-1
	7.2 BOTTLES AND PRESERVATIVES	7-2
	7.3 SAMPLE TRAFFIC REPORTS AND CHAIN OF CUSTODY	7-3
	7.4 PHOTOGRAPHS	7-3
	7.5 LABELING AND PACKAGING	7-4
8	QUALITY CONTROL	8-1
	8.1 BLANKS	8-1
	8.2 BACKGROUND SAMPLES	8-1
	8.3 DUPLICATE SAMPLES	8-2
	8.4 LABORATORY QC SAMPLES	8-2

Appendix

A FIELD QA/QQ SUMMARY FORM
B SITE SAFETY PLAN
C ANALYTICAL AND QUALITY CONTROL PROCEDURES FOR SPECIAL ANALYTICAL SERVICES METHODS REQUESTED
D FIELD MEASUREMENTS FOR PH AND CONDUCTIVITY

LIST OF ILLUSTRATIONS

Figure		Page
2-1	SITE LOCATION MAP	2-2
2-2	CRESTMORE FACILITY MAP	2-5
2-3	JENSEN QUARRY MAP	2-6
3-1	GROUNDWATER FLOW DIRECTION AND GROUNDWATER SAMPLE LOCATIONS	3-4

Table		Page
3-1	CKD ANALYSIS RESULTS	3-1
3-2	CKD CHARACTERIZATION SAMPLE LOCATION RATIONALE	3-2
3-3	CHROMIUM LEVELS IN WELL 60-1	3-5
3-4	CHROMIUM LEVELS IN THE CRESTMORE MINE WATER	3-5
3-5	GROUNDWATER SAMPLE LOCATION AND RATIONALE	3-7
3-6	LISTED ENDANGERED AND THREATENED SPECIES AND CANDIDATE SPECIES THAT MAY OCCUR ON OR IN THE VICINITY OF RIVERSIDE CEMENT	3-9
3-7	JENSEN QUARRY CKD SAMPLE LOCATION AND RATIONALE	3-10
4-1	GROUNDWATER REQUEST FOR ANALYSIS TABLE	4-3
4-2	SOIL SAMPLE REQUEST FOR ANALYSIS TABLE	4-5

1. OBJECTIVE OF SAMPLING EFFORT

Ecology and Environment, Inc.'s Field Investigation Team (FIT) will conduct this field sampling effort to gather data as part of a Screening Site Inspection (SSI) under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA or Superfund). The SSI builds upon the body of information developed during the Preliminary Assessment (PA) by verifying and substantiating data collected during the PA, collecting additional data through a site reconnaissance visit, and collecting physical environmental samples to analyze for the presence of hazardous substances. Four routes of human exposure are evaluated as part of the revised Hazard Ranking System (rHRS): air, groundwater, surface water, and on-site pathways.

Field sampling will be conducted using protocol accepted by the U.S. Environmental Protection Agency (EPA) as specified in the "Preparation of a U.S. EPA Region 9 Sample Plan for EPA-Lead Superfund Projects" guidance document (Quality Assurance Management Section, U.S. EPA, Region 9, April 1989). Contract laboratories will be utilized for analyses.

The objective of the proposed sampling is to collect groundwater and soil samples to provide information about groundwater and on-site contamination, as well as waste characteristics information to complete a rHRS evaluation of the site. The sampling plan describes the protocols used for collecting groundwater, on-site, and waste characteristics information.

The primary objectives of the sampling effort are:

- Sample existing upgradient and downgradient wells to document an observed release to groundwater from on-site disposal of cement kiln dust and refractory brick.
- Analyze samples of cement kiln dust to determine the leachability of metals from this waste and it's total metal content.
- Analyze other accessible wastes for heavy metals to determine if a direct contact threat is posed by the site.

2. BACKGROUND

2.1 SITE AND OWNERSHIP HISTORY

The Riverside Cement Company's Crestmore Plant is an active cement manufacturing facility located at 1500 Rubidoux Boulevard in Riverside, California in Township 2 South, Range 5 West, Sections 2 and 3 San Bernardino Base Line and Meridian. The site includes two facilities: the Crestmore facility and the Jensen Quarry. The Crestmore facility includes two inactive limestone quarries, the Wet Weather and Commercial quarries, and two cement processing plants, the inactive gray cement plant and the active white cement plant. The entire Crestmore facility covers 10 acres of land approximately 1 mile west of the Santa Ana River (see Figure 2-1 Site Location Map). The Jensen Quarry is a separate quarry and solid waste dump area which is currently inactive. It was formerly owned by Riverside Cement, and is located approximately 3 miles west of the Crestmore facility in the Jurupa Mountains in Township 2 South, Range 5 West, Section 5 (see Figure 2-1 Site Location Map).

Cement has been manufactured at the Crestmore facility in 12 on-site kilns since 1909 except for a 13-year period between 1929-1942. The site ownership has passed from several corporations. Originally incorporated as Southern California Cement Company in 1906, the company changed it's name to Riverside Portland Cement company in 1909 and to Riverside Cement Company in 1928. There are several Riverside Cement operations in the Southern California area which handle all phases of cement production and distribution. In 1958 Riverside Cement merged with Peerless Cement and Hercules Cement and bought Phoenix Cement and became American Cement Corporation, or Amcord. Amcord was bought out by Giffard-Hill in 1979. In 1987 Beazer Holdings Ltd. purchased the Giffard-Hill company which included Riverside Cement. Throughout this sample plan "Riverside Cement" will refer to these past and current owners and operators of the site.

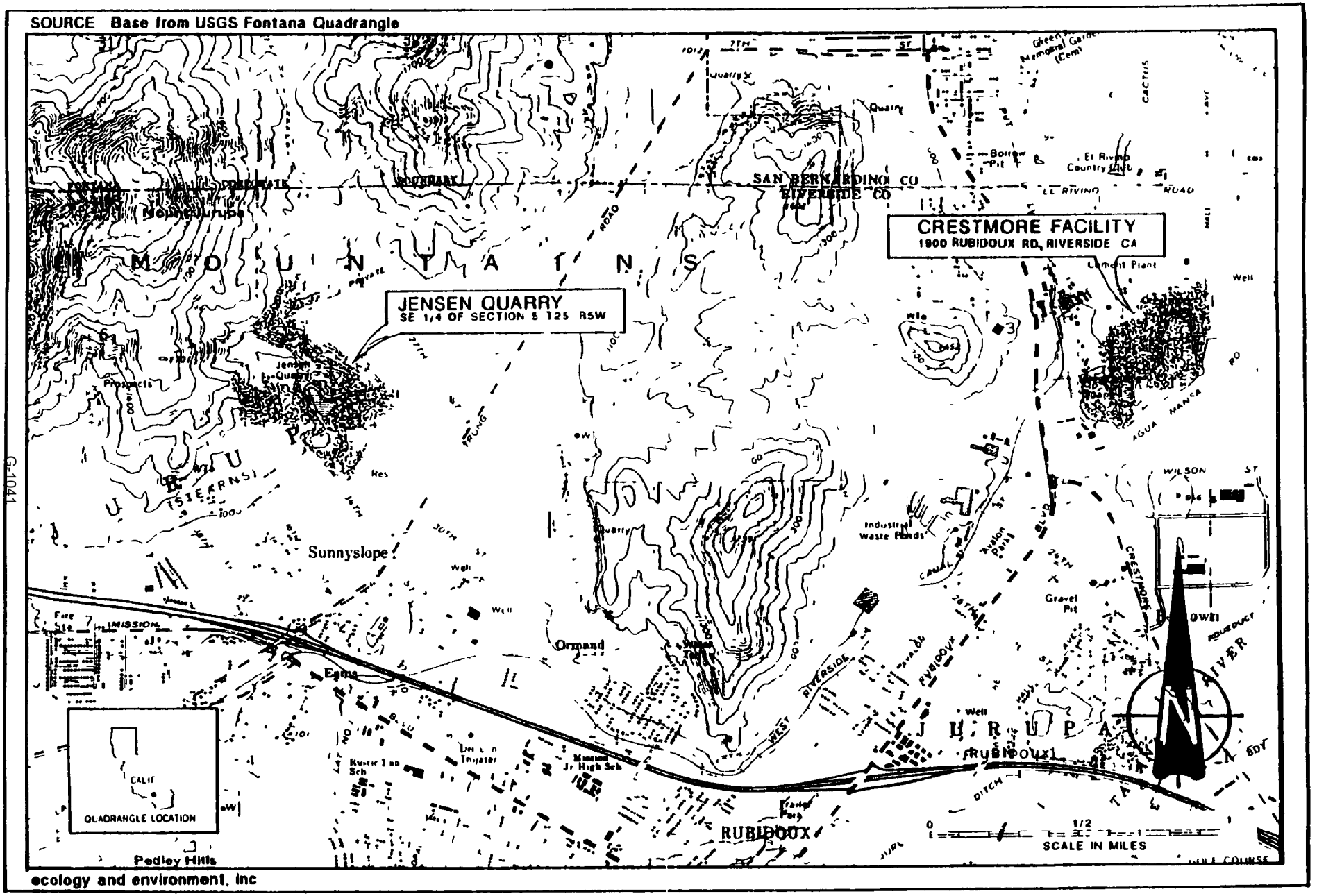


Figure 2-1 SITE LOCATION MAP
RIVERSIDE CEMENT JENSEN QUARRY AND CRESTMORE FACILITY

The Jensen Quarry was developed during World War I by the Riverside Cement Company and operated until 1927. Large scale operations at the quarry began again in 1948 and were discontinued sometime in the early 1950s. A California Department of Water Resources report indicated that in 1966 the quarry was used for riprap mining and as a disposal area for waste from cement processing at the Crestmore facility. Jensen Quarry was sold by Riverside Cement some time after 1964 and is currently owned by Walter and Elizabeth Taylor of Fountain Valley, California.

Limestone, the principal constituent of cement, has been mined on-site both at the Jensen Quarry and at the Crestmore facility by various methods including block caving, room and pillar, and surface extraction quarrying. A large room and pillar mine at the Crestmore facility, The Crestmore Mine, flooded in 1986. Currently a small lake covers the mine entrance. Mining at the Commercial and the Wet Weather surface quarries extracted limestone deposits until groundwater was encountered halting production. Since 1986, only cement manufacturing and packaging from imported raw materials has occurred at the Crestmore facility.

2.2 WASTE MANAGEMENT HISTORY

The cement manufacturing process involves homogenizing and blending raw feed composed of 90% limestone with 9% clay and 1% iron oxide. This raw feed is then heated in a sloped rotary kiln to a temperature of 2700° F where it undergoes a chemical reaction. When the mixture is rapidly cooled, it forms into marble sized balls called klinker. It is stored in this form until crushed and mixed with gypsum to form cement.

The predominant waste stream generated in this process is cement kiln dust (CKD). CKD is extracted from the kiln to lower the pH of the final cement product. CKD is collected in baghouses and has been disposed of at several disposal areas on site including the quarry excavations at the Jensen, Commercial, and Wet Weather quarries and in a depression near the entrance to the Crestmore Mine (see Figure 2-2, Facility Diagram and Figure 2-3 Disposal Areas at Jensen Quarry). Disposal at the Jensen and Commercial Quarries was discontinued sometime prior to 1969. At that

time Riverside Cement began disposing of CKD in a ravine between the Crestmore mine entrance and the Wet Weather Quarry. A dam was constructed from demolition debris across the lower end of this ravine by Riverside Cement in 1968. Disposal of CKD waste in this area has continued to the present. This disposal area will be referred to as the active CKD dump. Some recovery and reuse of CKD and raw feed disposed of in the commercial quarry area has been done by Riverside Cement. Riverside Cement has estimated that 250,019 tons of CKD was disposed of at the Crestmore facility between 1964 and 1987. One set of analytical results indicated the presence of several CERCLA hazardous substances in CKD.

Another waste stream of concern at the facility is waste refractory brick, also known as "basic brick," containing 10% hexavalent chromium. From 1955 until 1979, approximately 48 cubic yards of basic brick was disposed of at unspecified on-site disposal areas along with CKD. From 1980 to 1987, these bricks were either recycled back into the raw feed and made into cement or manifested for off-site disposal.

2.3 APPARENT PROBLEMS

The waste material disposal areas on-site are centered around three limestone quarries: the Wet Weather Quarry, the Commercial Quarry, and the Jensen Quarry.

The Wet Weather and Commercial Quarries are located adjacent to the Crestmore cement plant. The Jensen Quarry is located two miles west of the cement plant in the Jurupa Hills (see Figure 2-1).

One apparent problem at the site is that wastes including basic brick and CKD were disposed of in excavations at the Wet Weather Quarry at or near the historical groundwater elevation. Saturation of these wastes could cause the leaching of soluble heavy metal contaminants into the alluvial aquifer serving Riverside Basin groundwater users (see Section 3.2

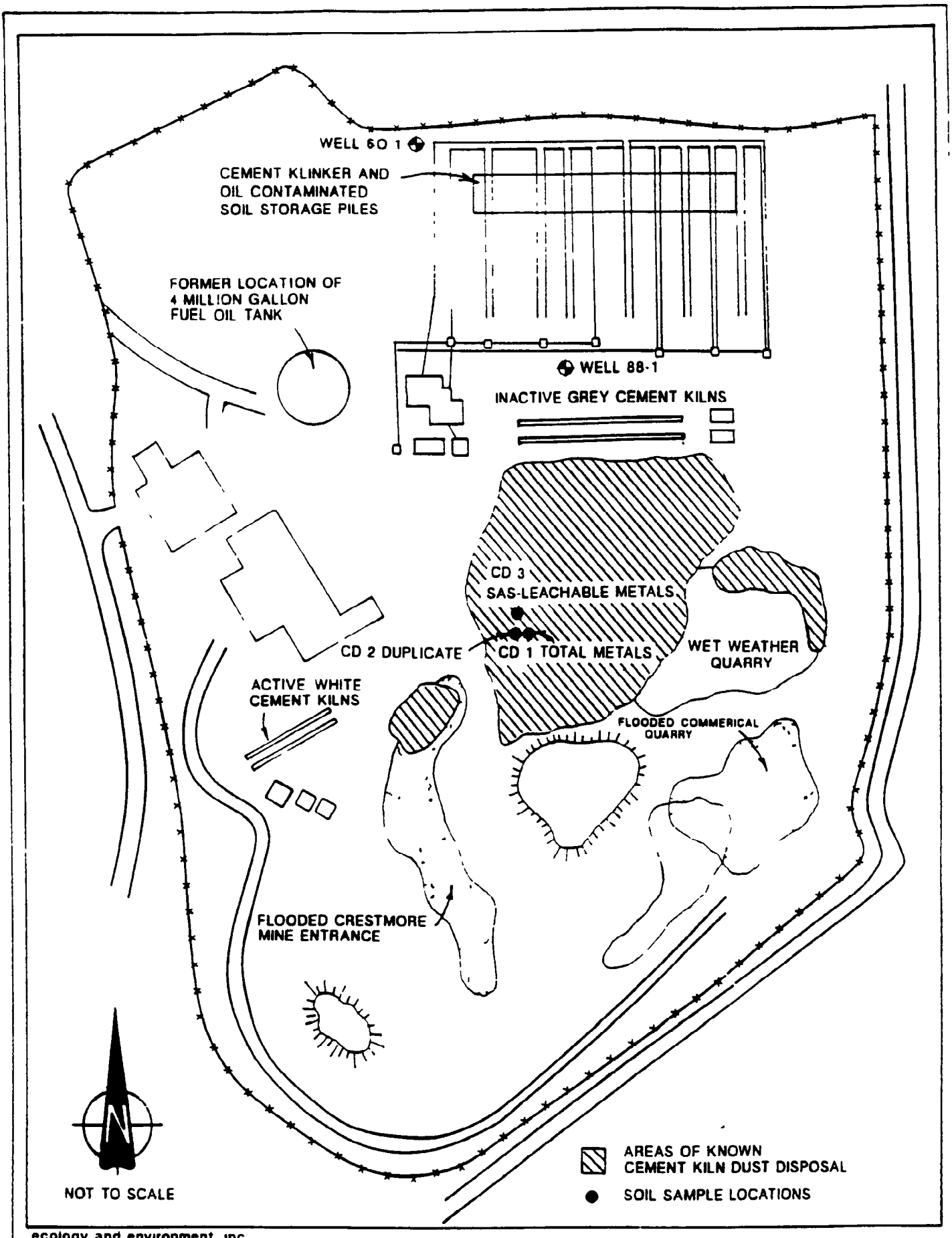


Figure 2-2 FACILITY DIAGRAM WITH WASTE DISPOSAL AND SOIL SAMPLE LOCATIONS
RIVERSIDE CEMENT CRETMORE PLANT
1500 RUBIDOUX BOULEVARD, RIVERSIDE CA

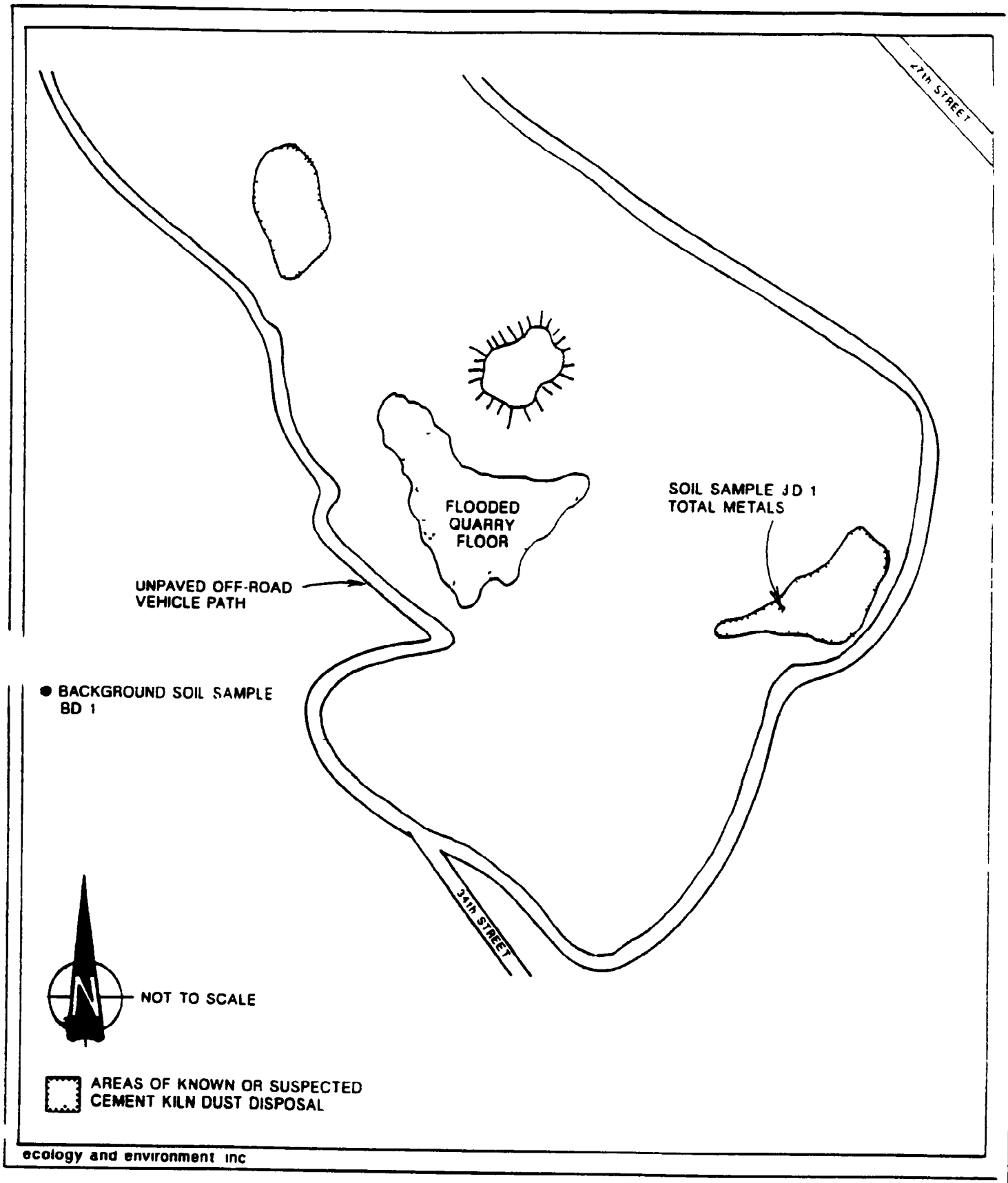


Figure 2-3 AREAS OF KNOWN OR SUSPECTED WASTE DISPOSAL AND SOIL SAMPLE LOCATION JENSEN QUARRY

Groundwater Pathway). Chromium contamination was detected in two on-site production wells in 1973. Since then chromium levels in these wells have diminished.

Another problem at the site is the potential for on-site exposure to CKD by trespassers at the Jensen Quarry. The flooded Jensen Quarry is a popular swimming and off-road vehicle area with ineffective barriers to trespassers.

3. HRS FACTORS

3.1 WASTE CHARACTERISTICS

Two types of CKD, white dust and gray dust, have been disposed of on site. The only total metals analyses of the facility's CKD were conducted by Riverside Cement in 1979. Table 3-1 lists the metals that were detected.

Table 3-1

CKD ANALYTICAL RESULTS

	White Dust (ppm)	Gray Dust (ppm)
Copper	4.2	33
Cobalt	5.6	7.6
Zinc	38	260
Manganese	78	170
Selenium	12	<0.1
Molybdenum	<21	<21
Chromium	41	26
Lithium	4.7	7.9
Strontium	250	500
Cadmium	56	150
Mercury	<0.1	0.1
Arsenic	21	6
Lead	4600	3600

3.1.1 Cement Kiln Dust Sampling

FIT proposes to collect a sample of CKD for total metals analyses to confirm the levels of metals detected in this 1979 sampling. A duplicate of this sample is proposed due to the high concentrations of hazardous substances in CKD.

In addition, FIT proposes to analyze a second sample of CKD from the same location for leachable metals. This analysis is required to assist in determining if a groundwater quality problem is posed by the CKD waste disposed of on site. All Crestmore CKD samples will be collected from the Crestmore active CKD dump. This is where CKD waste is currently being disposed of. Table 3-2 lists the samples proposed to characterize CKD wastes.

Table 3-2

CKD CHARACTERISTICS SAMPLE LOCATION AND RATIONALE

Sample Type	Sample #	Location	Rationale
Soil-Total metals (Lab QC)	CD-1	Crestmore Active CKD Dump	To determine the concentration of CERLCA hazardous substance present in CKD. A lab QC and duplicate of this sample are proposed because the concentrations of hazardous substances are expected to be the highest in this sample.
Duplicate of CD-1	CD-2	Crestmore Active CKD Dump	See above.
Soil-Leachable metals	CD-3	Crestmore Active CKD Dump	To determine the leachability of metals from CKD.

3.2 GROUNDWATER PATHWAY

The Crestmore disposal area is located in the Riverside Hydrologic Subarea at the base of an isolated rock out-cropping at the eastern end of the Jurupa Mountains. Local ground surface elevations range from 900 to 920 feet, above mean sea level (msl), not including quarry excavations. Two limestone beds, separated by a 500 foot bed of quartz diorite striking north and moderately east, directly underlie the area. The upper limestone bed is called the Sky Blue limestone. The lower bed is called the Chino limestone. Both formations range in thickness from 200 to 300 feet.

The Wet Weather Quarry mined the Sky Blue limestone formation prior to its use as a CKD disposal area. The Quarry excavation exposed aeolian sand dune deposits to the southeast. Underlying these deposits near the facility are granite and limestone beds. As these beds dip into the valley floor, older alluvium directly underlies the aeolian deposits. The aeolian deposits are composed of sand. The underlying older alluvium is composed of lenses of unconsolidated, poorly-sorted gravel, sand,

silt, and clay. These older alluvial deposits are the major source of groundwater in the Riverside Basin. Although the aquifer of concern is found in the older alluvium, on-site production wells that have previously shown contamination possibly extract water from both the Sky Blue limestone and the Chino limestone. A California Department of Water Resources Memorandum concerning waste disposal at the Crestmore facility stated that differences in water quality and static water elevations between the limestone aquifers and the alluvial water bearing zones indicate that these formations may be isolated from each other. The regional groundwater flow gradient in the alluvial aquifer is to the southwest (see Figure 3-1).

In 1965, the bottom of limestone excavations in the Wet Weather Quarry were at an elevation of 825 feet above msl. Excavation likely ceased at this elevation due to the presence of groundwater. It is unclear if the water encountered at that elevation was in communication with the alluvial aquifer or with the Sky Blue limestone aquifer. A well located 2,000 feet east of the site, screened in the alluvial aquifer, had a static water level of 800 feet above msl in 1965 and a historic high level of 830 feet above MSL in 1945.

✓ The Rubidoux Community Service District operates two wells approximately 3.75 miles from the site that contribute to a blended system which serves over 5,000 household customers. These wells are screened beginning at 60 feet bgs. Recent sampling data from these wells does not indicate elevated levels of heavy metals. The Crestmore Heights Mutual water company operates a well located on Riverside Cements Property which serves approximately 100 household customers. This well is located approximately 0.4 miles from the Crestmore active CKD dump. This well was originally constructed as a mine de-watering well for the Crestmore mine. It has an open ended casing approximately 250 feet bgs. Sampling data from this well is inadequate for determining levels of specific heavy metals.

Possible groundwater contamination at the site came to the attention of the California Regional Water Quality Control Board in 1973 when a high

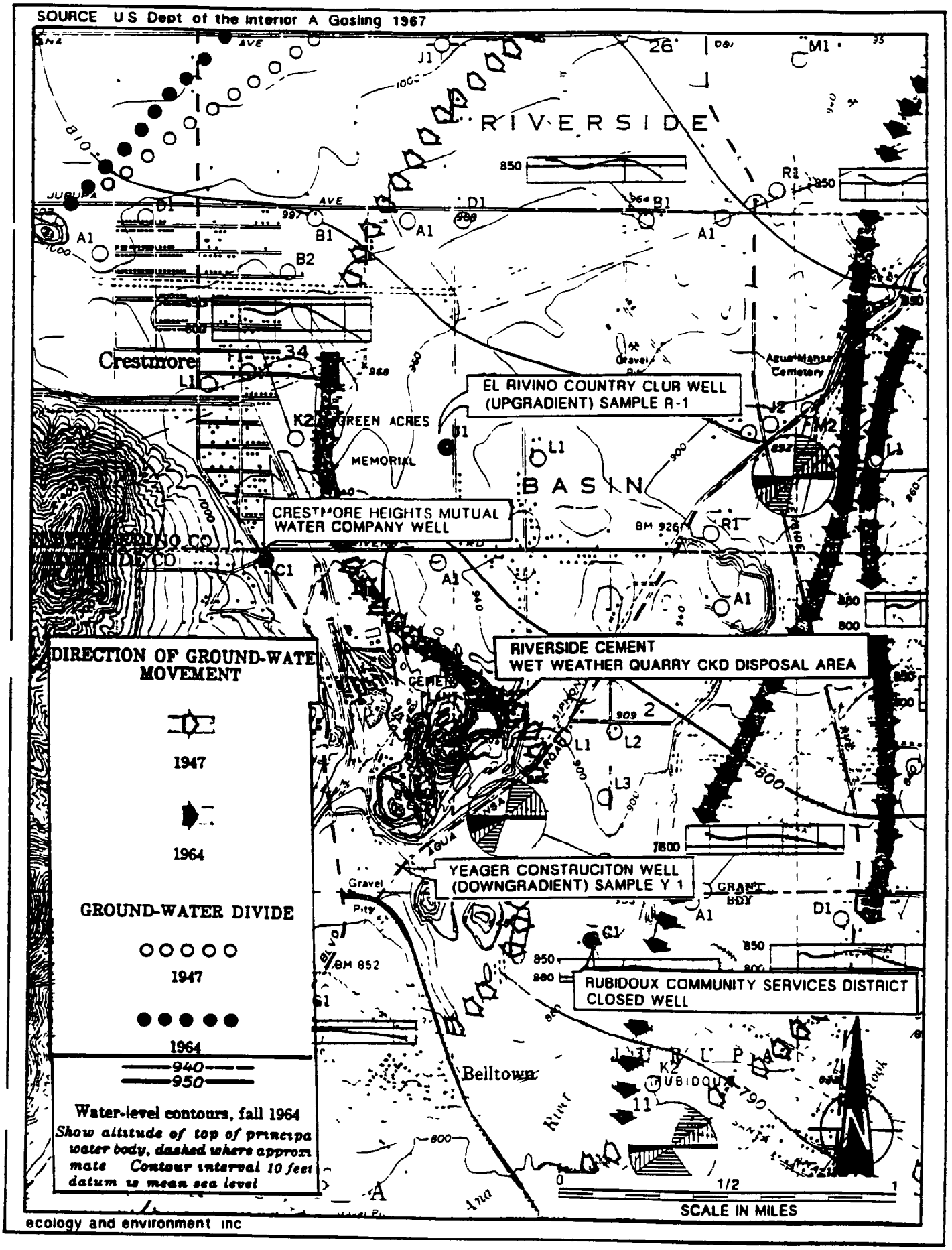


Figure 3-1 GROUNDWATER FLOW DIRECTION AND GROUNDWATER SAMPLE LOCATIONS

level of chromium (0.55 mg/L) was detected in the facility's wastewater which is released to the Riverside Irrigation Canal. This incident was investigated by Riverside Cement and determined to be an unusual release of recirculated cooling water treated with chromate. However, subsequent sampling by Riverside Cement of their on-site well, 60-1 (see Figure 2-2), revealed levels of chromium as indicated in Table 3-3:

Table 3-3

CHROMIUM LEVELS IN WELL 60-1 (mg/L)

Year of Sample	Hexavalent Chromium	Total	Current Maximum Contaminant Level for Chromium
1976 (January)	.03	.09	.05 mg/L
1976 (June)	.04	*	
1984	*	.03	
1985	*	.02	
1986	*	.02	
1988	*	.02	
1989	*	.01	

* analyses not performed.

Another on-site well, 88-1 which was reconditioned in 1988, has shown total chromium levels of .02 mg/L in 1988 and in 1989.

Well logs for these wells are unavailable and it is unknown if these wells are screened in limestone or alluvial deposits.

Water from the flooded Crestmore Mine was also sampled by Riverside Cement. Table 3-4 list the analyses results.

Table 3-4

CHROMIUM LEVELS IN THE CRESTMORE MINE WATER (mg/L)

Year of Sample	Hexavalent Chromium	Total	Current Maximum Contaminant Level for Chromium
1976	.03	.05	.05 mg/L
1984	*	.01	
1987	*	.01	
1989	*	.02	

* Not analyzed

Additionally, in 1988 a well owned by the Rubidoux Community Services District, located 0.5 miles southeast of the site showed levels of lead at .01 mg/L and total chromium at .01 mg/L (see Figure 3-1).

3.2.1 Groundwater Sampling

Background levels of chromium and lead in other on-site wells sampled by Riverside Cement were not detected at detection limits of 0.01 mg/L.

Despite the availability of groundwater analytical data, no wells directly downgradient from the disposal area, screened in the alluvial aquifer, have been sampled. FIT proposes to sample the Yeager Construction Company's well located 0.5 mile southwest of the waste disposal area. This well is down-gradient of the disposal area and there is no available sampling data for this well.

The Yeager well water is used in a drive-through truck wash at the Yeager yard. It is collected on a concrete pad and pumped into a polymer lined settling and storage pond. This water is then sprayed on the facilities yard and at other construction sites to control dust. There is no analytical analysis of this wastewater available to determine it's potential effect on groundwater quality.

However, it is unlikely that this water is contaminated with dissolved heavy metal contaminants which samples collected in this investigation are to be sampled for. The Yeager Construction Company's wastewater appears to lack a source for heavy metals contaminants. The processes at the construction yard include an asphalt batch plant, a cement ready-mix plant and equipment maintenance and storage. The asphalt manufacturing and equipment maintenance processes could produce organic contaminants from their use of parts cleaning solvents, paint or lubricants. However heavy metal contamination from these sources is unlikely. The finished cement used in Yeager's Ready-mix Cement plant likely contains low levels of heavy metals. However, it is unlikely that heavy metal constituents of cement are soluble given the low concentrations normally found in finished cement. In addition, the waste water sprayed on the facility for dust control would not likely come in contact with finish cement handled in the batch plant.

Groundwater sampling data is required to determine if waste disposal at the Crestmore Plant is degrading water quality in the alluvial aquifer used by Riverside Basin groundwater users. This information is required to evaluate the site under the rHRS. Table 3-5 lists groundwater sample locations and rationales.

Table 3-5

SAMPLE LOCATION AND RATIONALE

Sample Type	Sample #	Location	Rationale
Water (Lab QC)	Y-1	Yeager Construction well	To analyze groundwater quality downgradient from CKD disposal areas for possible observed release. This well was chosen for Lab QC and duplicate analysis because it is the only well being sampled for suspected contamination.
Water (Duplicate Y-1)	S-1	Yeager Construction well	See above.
Water	R-1	El Rivino Country Club well	To determine upgradient (background) groundwater conditions.
Water	p-1	Field Blank	QC Procedure

3.3 SURFACE WATER PATHWAY

Analytical data documenting the site's past chromium release to surface water is currently available. It is unlikely that any further documentation of contamination of surface water could be obtained.

A release of cooling water containing .55 mg/L chromium to the Riverside Canal was documented by the Regional Water Quality Control Board in 1973 (see Section 3.2 Groundwater Pathway). The Riverside Canal runs adjacent to the Crestmore facility's southern boundary and is used for irrigation only.

The Santa Ana River is located 1 mile east of the Crestmore plant. This river has no use other than flood control and wildlife habitat. Several listed and Candidate Federal Endangered and Threatened Plant and Animal species likely exist in this area. Table 3-6 lists those species.

3.4 AIR PATHWAY

Although there is a moderate potential for documenting an air release at the site, air sampling is not within the scope of this Screening Site Investigation.

The Crestmore facility's uncovered storage piles of cement raw materials and klinker covers approximately 20 acres. However a large part of this area is currently used to store contaminated soil from Riverside Cement's closure of it's 6 million gallon-above ground fuel storage tank. This waste is excluded under CERCLA by the petroleum exclusion. The active CKD disposal area covers approximately another 18 acres. Both of these areas are sources of potential air releases from the facility. The storage piles are continuously homogenized with large earth moving conveyers. Dumping of CKD at the disposal area is also ongoing. Both of these processes likely contribute to the entrainment of particulate emissions from these sources.

The nearby communities which are partially within 4 miles of Riverside Cement's Crestmore facility or the Jensen Quarry include: Riverside (pop. 170,591), Crestmore Heights (pop. 200), Fontana (pop. 37,107), Rubidoux (pop. 12,400), and Sunnyslope (pop. 1,200).

In addition the federally designated endangered species listed on Table 3-6 are also possibly found within the site's air pathway target distance limit.

Table 3-6

LISTED ENDANGERED AND THREATENED SPECIES AND CANDIDATE SPECIES THAT MAY OCCUR ON OR IN THE VICINITY OF RIVERSIDE CEMENT

LISTED ENDANGERED SPECIES	
Mammals	
Stephen's Kangaroo Rat	Dipodomys stephensi
Birds	
Least Bell's vireo	Vireo bellii pusillus
Plants	
Slender-horned spineflower	Centrostegia leptoceras
Santa Ana River Woolly-star	Eriastrum densifolium sanctorum
CANDIDATE THREATENED SPECIES	
Mammals	
Spotted bat	Enderma maculatum
Greater mastiff bat	Eumops perotis californicus
Los Angeles pocket mouse	Perognathus longimembris brevinasus
Birds	
White-faced ibis	Plegadis chihi
Swainson's hawk	Buteo swainsoni
Ferruginous hawk	Buteo regalis
Long-billed curlew	Numenius americanus
Tricolored blackbird	Agelaius tricolor
Reptiles	
Orange-throated Whiptail	Cnemidophorus hyperythrus
San Diego Horned Lizard	Phrynosoma coronatum blainvillei
Western pond turtle	Clemmys marmorata
Amphibians	
California red-legged frog	Rana aurora draytoni
Invertebrates	
Greenest tiger beetle	Cincindela tranquebarica viridissima

3.5 ON-SITE PATHWAY

The on-site pathway is not a consideration at the Crestmore area of the site. This area is fenced, guarded, patrolled and in continuous operation, thereby restricting on-site access. However, the Jensen Quarry area is unfenced and in use as a recreation lake and off-road vehicle area by trespassers. Additionally the federally designated endangered and threatened plant and animal species listed on Table 3-6 possibly exist on or near both the Jensen Quarry and the Crestmore facility. These species also contribute to the site's on-site pathway target population.

FIT proposes to collect samples at a suspected CKD dump area at the Jensen Quarry to determine if uncontained CKD, containing elevated levels of heavy metals, poses a potential to be exposed to humans or sensitive habitats in this area. Table 3-7 lists the on-site pathway soil sample locations and rationales.

Table 3-7

JENSEN QUARRY CKD SAMPLE LOCATION AND RATIONALE

Sample Type	Sample #	Location	Rationale
Soil	JD-1	Jensen Quarry	To document the presence of CERCLA hazardous substances in exposed waste on-site, for on-site exposure pathway.
Soil	BD-1	Jensen Quarry Native soil upslope from the Quarry	Background soil conditions.

4. REQUEST FOR ANALYSES

4.1 GROUNDWATER SAMPLE ANALYSES

The analytical parameters for groundwater sampling at Riverside will include Target Analyte List (TAL) metals and strontium. The metals analyses will require a Routine Analytical Services (RAS) request for the TAL metals plus a Special Analytical Services (SAS) request for the additional analyte and low contract required quantitation limits (CRQLs) required for several analytes. The entire groundwater analyses request includes RAS + SAS TAL metals with the addition of strontium (5 ppb detection limit) and low detection limits for hexavalent chromium, total chromium, and cadmium.

The analytical and quality assurance (QA) procedures for these methods are included in Appendix D. The laboratory services requested are intended to detect any increase in the levels of soluble metals downgradient from the Riverside Cement site. Metal contamination from the cement kiln dust and refractory kiln brick disposed of on site is suspected. Low detection limits are requested because previous samples of on-site wells showed levels of metals near the standard CRQL.

A total of four groundwater samples will be collected. One upgradient background, one downgradient, one duplicate downgradient, and one equipment blank.

The upgradient sample location is the El Rivino Country Club well, 0.7 miles north of the active Crestmore CKD dump. The downgradient sample location is the Yeager Construction Company well located 0.15 miles south of the flooded Crestmore mine (see Figure 3-1).

The upgradient well was chosen because it is the closest upgradient well which is screened in the alluvial aquifer which has not shown contamination in previous sampling. No previous sampling data for this well is available. The downgradient well was selected due to it's downgradient proximity to the area of waste disposal on site. It has

never been sampled before. This well was chosen for the laboratory Quality Control (QC) and duplicate samples because it is the only sample location where contamination is expected. Table 4-1 summarizes the groundwater request for analysis.

4.2 Soil Sample Analysis

The soil sampling objective at Riverside Cement will require both SAS and RAS requests.

The SAS request is to have the California Waste Extraction Test (WET) Procedure performed on one sample of cement kiln dust. The Laboratory QC procedures for this method are included in Appendix D. The extracted liquid will be analyzed for TAL metals plus strontium (5 µg/L detection limit) with low CRQL for hexavalent chromium, chromium, and cadmium. The analytical and quality control procedures for these methods are also included in Appendix D.

The purpose of this WET analysis for metals is to determine the potential for heavy metals to leach from waste dust disposed of on site. The historic disposal of these wastes at or near the water table elevation makes this potential of particular concern at the site.

The RAS request for soil analyses includes three samples of cement kiln dust and one background soil sample for TAL metals. One sample will be collected from the Crestmore active CKD disposal area. The purpose of this sample is to determine the levels of hazardous constituents in CKD. This information is required to provide supplementary toxicity information to evaluate the site under the proposed revised Hazard Ranking System (rHRS) model. The second RAS soil sample is a duplicate of this sample. This sample location was chosen for the laboratory QC and duplicate collection because, of the two cement kiln dust sample locations, this is the one with the highest suspected metal concentrations.

revised

Table 4-1

GROUNDWATER REQUEST FOR ANALYSIS TABLE

CLP ANALYSES REQUESTED					SPECIAL ANALYTICAL SERVICES(SAS) +Routine Analytic Services (RAS)		
CHEMISTRY TYPE							
SPECIFIC ANALYSES REQUESTED					Hexavalent Chromium	TAL Metals and Strontium 5 ppb detection limit	Cadium Chromium with low CRDL
PRESERVATIVES					Add HNO3 to pH >2		
ANALYTICAL HOLDING TIME(s)					Hold <24 Hours	Hold <6 months	
CONTRACT HOLDING TIME(s)					Hold <12 Hours	Hold <35 days	
SAMPLE X SAMPLE					NO. OF BOTTLES PER ANALYSIS	NO. OF BOTTLES PER ANALYSIS	NO. OF BOTTLES PER ANALYSIS
SAMPLE NUMBER	SAMPLE LOCATION	SAMPLING SCHEDULE	CONCENTRATION LOW	CONCENTRATION MED	1x1 LITTER POLYETHYLENE BOTTLE		
Y-1 LAB QC	Yeager	4/30/90	X		2	2	2
S-1 DUP	Yeager	4/30/90	X		1	1	1
R-1 Back-ground	El Rivino	4/30/90	X		1	1	1
P-1	Blank	4/30/90	X		1	1	1
TOTALS		low conc					

pb/rc/sas

The third RAS metals soil sample will come from a suspected cement kiln dust disposal area at the Jensen Quarry. This analysis is required to investigate possible contamination in a publicly accessible area.

The fourth RAS metals soil sample is a background sample of native soil upslope from the Jensen Quarry area. This sample location is approximately .25 miles west of the Jensen Quarry excavation on an undisturbed vegetated hillside. Table 4-2 summarizes the soil sample request for analysis.

Table 4-2

SOIL SAMPLE REQUEST FOR ANALYSES TABLE

CLP ANALYSES REQUESTED				SPECIAL ANALYTICAL SERVICES + Routine Analytical Services RAS + SAS	
CHEMISTRY TYPE				Inorganics	
SPECIFIC ANALYSES REQUESTED				CAM WET Extraction and TAL Metals*	TAL Metals + Strotium (1mg/G detection limit)
PRESERVATIVES				None	
ANALYTICAL HOLDING TIME(s)				Hold to <6 mos.	
CONTRACT HOLDING TIME(s)				Hold to <6 mos.	
SAMPLE X SAMPLE				NO. OF BOTTLES PER ANALYSIS	NO. OF BOTTLES PER ANALYSIS
SAMPLE NUMBER	SAMPLE LOCATION	SAMPLING SCHEDULE	CONCENTRATION LOW	1 x 4 oz. wide mouth glass jar	1 x 4 oz. wide mouth glass jar
CD-1 Lab QC	Crestmore	4/30/90	X		1
CD-2 Dup.	Crestmore	4/30/90	X		1
CD-3	Crestmore	4/30/90	X	3	
JD-1	Jensen	4/30/90	X		1
BD-1	Jensen Background	4/30/90	X		1
TOTALS low conc			5		

*Adding Strotium with low CRQL for Hexavalent Chromium, Chromium, and Cadmium.

5. METHODS AND PROCEDURES

5.1 GROUNDWATER SAMPLING AT OFF-SITE IRRIGATION AND INDUSTRIAL WELLS

5.1.1 Well Purging Procedures

The El Rivino County Club Irrigation well (Rivino) and the Yeager Construction Company Industrial well (Yeager) will be properly purged prior to sampling in order to ensure that water in the aquifer is being sampled and not the standing water in the well or pump. Prior to purging, both wells will be sounded if possible to record the depth to groundwater. The El Rivino Country Club well has a total depth of 190 feet. It has a fully enclosed 14 inch diameter casing with an open bottom. In 1985, the well had a static water level of 112.4 feet msl. The wet casings well volume is 86 cubic feet, or 640 gallons. The well is equipped with a shaft driven impeller pump powered by a 125-horse power electric motor. During a pump test in 1985, the well had a capacity to pump 1,120 gallons per minute. At this rate purging 5 well volumes from the El Rivino well will take less than 3 minutes. During this time, pH conductivity and temperature will be monitored continuously. After at least 3 minutes of pumping has occurred and these parameters have stabilized to within 10% of the last reading. The well will be considered sufficiently purged and sampling will commence.

Information about the Yeager Construction Co. well construction (casing diameter, static water level, total depth, pump rate) is unavailable. This well pump will be run continuously for 15-20 minutes prior to sampling. During this time, pH, conductivity, and temperature will be monitored at least every five minutes. When these parameters have stabilized to within 10% of the last reading, the well will be considered sufficiently purged and sampling will commence.

5.1.2 Obtaining Samples

Water samples collected from the Yeager and El Rivino wells will be obtained from outlets as close as possible to the pumps. Samples will not be collected from faulty or leaking spigots. Samples will be taken from a steady flowing stream at moderate pressure in order to prevent splashing or dislodging particles in the faucet or water line. Water will be taken directly into sample bottles. Aerators, strainers, and hose attachments on the tap will be removed before sampling. In addition, all samples will be collected prior to any filter, water softening devices, chlorinators, or pressure tanks. Refer to Section 4 for sample bottle and preservative requirements.

Samples will be measured for pH, conductivity, and temperature. These measurements and the names of the owner, the exact mailing address, and home and work telephone numbers will be recorded in the project managers logbook.

5.1.3 Decontamination

Decontamination of sampling equipment will not be necessary due to the lack of equipment which will be used to collect samples.

5.2 SURFACE SOIL GRAB SAMPLING

5.2.1 Obtaining Samples

Surface soil samples will be collected from pre-determined areas where grass, leaves, and other debris have been removed. Soil samples will include the upper 6 inches of soil from an area 6 inches in diameter. Each sample will be mixed in a sample-dedicated, disposable, paper mixing bucket to ensure sample homogeneity prior to transfer to the appropriate sample container (refer to Section 4 for sample bottle and preservative requirements). Each sample will be obtained using a sample dedicated stainless steel trowel. Soil sampling locations at the Jensen Quarry

were determined from a letter dated November 1, 1966 from the California Department of Water Resources to the Santa Ana Regional Water Quality Control Board. This letter described the CKD disposal areas at the Jensen Quarry which were active at that time and included a map showing their location. The active CKD dump at the Crestmore facility was selected as the CKD sample location because it is where a sample of known CKD can most easily be obtained.

5.2.2 Decontamination

Field equipment used during the collection of surface soil samples is generally disposable. However, should any decontamination be necessary, the following sequence will be followed:

1. Rinse with potable water to remove gross contamination.
2. Clean with non-phosphorus detergent and potable water using a brush if necessary.
3. Rinse with potable water.
4. Triple rinse with 0.1 Nitric Acid.
5. Triple rinse with de-ionized (organic-free) water.

6. DISPOSAL OF INVESTIGATIVE DERIVED WASTE

Water from the purging of both the Yeager and El Rivino Country Club wells will be discharged in the manner of their normal use.

The Yeager well is used for equipment washing and then flows into a polymer lined settling and storage pond approved by the Santa Ana Regional Water Quality Control Board (RWQCB). This water is then reused for dust control in the facilities yard and at other construction sites. The El Rivino Country Club well is used for irrigation water for a golf course.

Other investigation derived waste including tyvek suits, gloves, trowels, and packaging materials will be disposed of by Riverside Cement as municipal trash. Approval has been received from Riverside Cement for this disposal.

7. SAMPLE DOCUMENTATION AND SHIPMENT

7.1 FIELD LOGBOOKS

Field logbooks will document where, when, how, and from whom any vital project information was obtained. Logbook entries will be complete and accurate enough to permit reconstruction of field activities. At a minimum, the following sampling information will be recorded:

- Sample location description;
- Station numbers;
- Sampler's name;
- Sample collection time;
- Designation of sample as composite or grab;
- Type of sample;
- On-site measurement data (e.g., pH, temperature, conductivity, etc.);
- Field observations and details important to analysis or integrity of samples (e.g., heavy rains, odors, colors, etc.);
- Preliminary sample descriptions (e.g., clay loam soil, very wet);
- Type of preservation used;
- Instrument reading (e.g., dust meter, etc.);
- Site sketch;
- Lot numbers of the sample containers, sample tag numbers, chain-of-custody form numbers, and chain-of-custody seal numbers;
- Shipping arrangements (Federal Express airbill number); and
- Recipient laboratory.

A separate logbook is maintained for every different TDD or project. The logbooks are bound with consecutively numbered pages. Each page will be dated, time notated (24 hour clock), legible, written in black ink, and signed by the individual making the entries. Language will be factual, objective, and free of personal opinions or other terminology which might prove inappropriate. In addition to the sampling information, the following specifics will also be recorded in the field logbook:

- Team members and their responsibilities;
- Time of site arrival/entry onto site and time of site departure;
- Other personnel on site;
- A summary of any meetings or discussions with potentially responsible parties (PRPs), representatives of PRPs, or federal, state, or other regulatory agencies;
- Any deviations from project scope, work plans, sampling plans, site safety plans, and QA procedures;
- Any changes in personnel and responsibilities as well as reasons for the changes;
- Documentation of all photographs taken, along with detailed descriptions of the contents of the photographs;
- Levels of safety protection;
- Equipment calibration and equipment model and serial number; and
- Well construction details as well as purge volumes.

7.2 BOTTLES AND PRESERVATIVES

The number of sample containers, volumes, and materials are detailed in Tables 4-1 and 4-2. The containers are pre-cleaned according to the protocols already in place for Contract Laboratory Program (CLP). Water samples will be acidified to a pH of less than 2 with nitric acid (HNO_3). Preservative(s) will be added to the filled sample container(s) using a pipet and mixed by turning the container upside down. The pH is checked using pH paper to test a small amount of sample poured into the sample lid. The sample in the lid will be discarded, and if necessary, more acid will be added. No preservative will be added to the soil samples,

but all samples, water and soil, will be placed in coolers and chilled to 4° C. Sample preservatives and methods are also detailed in Tables 4-1 and 4-2.

7.3 SAMPLE TRAFFIC REPORTS AND CHAIN-OF-CUSTODY RECORDS

The collection of each sample will be documented on RAS traffic reports. The top copy of the forms will be sent to the Sample Management Office (SMO). The second copy will be retained by EPA Region IX, Regional Sample Control Center (RSCC). The third and fourth copies accompany the samples to the laboratory. A photocopy of the forms will be made for the FIT master file. One traffic report or SAS packing list will accompany each shipment to the laboratory.

All EPA sample shipments will be accompanied by a chain-of-custody record identifying their contents. The original records will accompany the shipment. The copies of the custody records will be sent to the EPA Region IX RSCC. A photocopy of the records will be made for the FIT master file. Until shipped or transferred, custody will be the responsibility of the sampling team. A separate chain-of-custody record will accompany each cooler.

Each sample container will have a gummed EPA custody seal placed across its lid. Samples will be packaged and placed in ice chests, which will have custody seals placed across the lid prior to shipment or when not with view of a sampler. All custody seals will be signed and dated by one of the samplers.

The "CLP Paperwork Instructions," Appendix G to the guidelines on "Preparation of a U.S. EPA Region IX Sample Plan," will be taken to the field as a reference, and a Field QA/QC Summary Form will be completed at the end of the sampling event. Corrections on sample paperwork will be made by placing a single line through the mistake and initialing and dating the change. The correct information can be entered above, below, or after the mistake.

7.4 PHOTOGRAPHS

Photographs will be taken at every sample location and at other areas of interest on site. They will serve to verify information entered in the field logbook. When a photograph is taken, the following information must be written in the logbook:

- Time, date, location, and, if appropriate, weather conditions;
- Complete description of the subject photographed; and
- Name of person taking photograph.

When the photographs are developed, the information recorded in the field logbook will be transcribed onto photodocumentation sheets.

7.5 LABELING, PACKAGING, AND SHIPMENT

All samples collected will be labeled in a clear and precise way for proper identification in the field and for tracking in the laboratory. The CLP samples have a pre-assigned, identifiable, and unique number. At a minimum, the sample labels will contain the following information: CLP Case/SAS number, station location, date of collection, time of collection, analytical parameter(s), and any preservatives added. Different sample numbers will be used for all samples. Samples collected from the same location but going to different laboratories will have different sample numbers.

All sample containers will be placed in a strong, outside shipping container (usually a sturdy picnic cooler with hard plastic inside). The following outlines the packaging procedures that will be followed for low concentration samples.

1. Secure the drain plug of the cooler with Fiberglass tape to prevent melting ice from leaking out of the cooler;
2. Line the bottom of the cooler with bubble wrap to prevent breakage during shipment;

3. Check screw caps for tightness and mark the sample volume level on the outside of all sample bottles with a wax pencil;

4. Secure bottle/container tops with strapping tape and custody seal all container tops;

5. Affix sample labels onto the containers and cover with clear tape;

6. All glass sample bottles will be wrapped in bubble wrap to prevent breakage; and

7. All samples will be placed in heavy duty plastic bags and sealed. The sample numbers will be written on the outside of the plastic bags with indelible ink.

All samples will be placed in coolers with the appropriate traffic report, sample ID labels, chain-of-custody seals, SAS packing lists, and chain-of-custody forms. All forms will be enclosed in a large plastic bag and affixed to the underside of the cooler lid. Empty space in the cooler will be filled with bubble wrap to prevent movement and breakage during shipment. When ice is needed, it will be placed in plastic bags and placed on top and around the samples to chill them to the correct degree. Each ice chest will be securely taped shut with nylon strapping tape, and custody seals will be affixed to the front, right, and back left of each cooler. The Region IX RSCC will be notified daily (phone 415-556-5034) of the sample shipment schedule (Friday shipments must be reported no later than noon) and will be provided with the following information:

1. Sampling contractor's name;

2. Case number/SAS number;

3. Total number(s) by concentration and matrix of samples shipped to each laboratory;

4. The name of the site;

5. Carrier, airbill number(s), method of shipment (priority next day);

6. Shipment date; and

7. Irregularities or anticipated problems associated with the samples.

8. QUALITY CONTROL

8.1 BLANKS

Blank samples are used during sampling to determine if contamination is introduced by the sampling environment or by collection equipment. Field blanks or equipment blanks are required for all water sampling. No blank samples are taken during soil sampling. When required, one blank sample must be collected per day per site. A blank is treated as a separate sample.

Field water blank samples for inorganics are prepared by bringing laboratory grade water to the field and using this water to prepare a sample. Field blanks are prepared near the end of the day at a sample location by pouring laboratory grade water into a sample container and preserving the sample the same as with the other groundwater samples. Sample P-1 is a field blank which will be collected at the completion of groundwater sampling.

8.2 BACKGROUND SAMPLES

A minimum of one background sample (or upgradient sample for groundwater) will be collected for each of the parameters selected. The background sample will be collected in an area which is unlikely to have received contaminants. The sample will be representative of conditions that existed on site before hazardous waste was deposited. Because the background sample will be used for comparison with concentrations of samples from the hazardous waste site in the revised Hazard Ranking System, great care will be exercised in the selection of the background sampling location. A background sample is required for all matrices of samples (refer to Section 4, Request for Analyses, for exact locations at background samples). Groundwater sample R-1 and soil sample BD-1 are background samples.

8.3 DUPLICATE SAMPLES

Duplicate samples are collected simultaneously with a standard sample from the same source under identical conditions into separate sample containers. A duplicate sample is treated independently of its counterpart in order to assess laboratory performance through comparison of the results. Duplicate samples will be collected from areas of known or suspected contamination. Duplicates will be collected for at least 10% of the samples per event for each sample matrix and for every analytical group tested.

All blanks, background samples, and duplicates will be submitted in the same manner as the other field samples, with no distinguishing marks or labels. The QC samples will be analyzed for the same parameters as the regular samples (refer to Section 4 Request for Analyses, for exact locations of background and duplicate samples). Groundwater sample S-1 is a duplicate of Y-1. Soil sample CD-2 is a duplicate of CD-1. The Yeager Well and the Crestmore active CKD dump were chosen for duplicate samples because they are suspected of having the highest concentration of hazardous substances.

8.4 LABORATORY QC SAMPLES

Laboratory quality control (QC) samples are analyzed by the EPA contract lab as part of the CLP standard laboratory quality control protocols. A laboratory QC sample is an additional sample volume collected at a specific sample location of known or suspected contamination. This extra volume provides the laboratory with sufficient sample to duplicate their analyses on a given sample. One laboratory QC sample is required per site per analytical group tested. The bottle labels, traffic reports, and chain-of-custody for these samples will identify them as laboratory QC samples (refer to Section 4, Request for Analyses, for exact locations of Lab QC samples). Groundwater sample Y-1 and Soil Sample CD-1 were both designated Laboratory QC Samples because they are suspected of having the highest concentration of hazardous substances.

APPENDIX A

FIELD QA/QQ SUMMARY FORM

FIELD QA/QC SUMMARY FORM

Instructions. Complete one form per laboratory and per matrix for each sampling event.

Date. _____ Site _____

Sampler: _____ Case/SAS #: _____

Office _____ Laboratory. _____

Phone # _____

Matrix (check one) ___Groundwater ___Surface Water ___Surface Soil ___Subsurface Soil ___Air ___Other _____

I BLANKS

Sample #	Type (circle one)	Date Collected
_____	Equip/Field/Travel	_____
_____	Equip/Field/Travel	_____
_____	Equip/Field/Travel	_____
_____	Equip/Field/Travel	_____
_____	Equip/Field/Travel	_____
_____	Equip/Field/Travel	_____
_____	Equip/Field/Travel	_____
_____	Equip/Field/Travel	_____
_____	Equip/Field/Travel	_____
_____	Equip/Field/Travel	_____
_____	Equip/Field/Travel	_____
_____	Equip/Field/Travel	_____

II. BACKGROUND SAMPLES

Sample #	Date Collected
_____	_____
_____	_____
_____	_____
_____	_____

III LAB QC SAMPLES

Sample #	Date Collected
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

IV DUPLICATES

Sample #	Matches Sample #	Date Collected	Type (circle one)
_____	_____	_____	a/b/c/d
_____	_____	_____	a/b/c/d
_____	_____	_____	a/b/c/d
_____	_____	_____	a/b/c/d
_____	_____	_____	a/b/c/d
_____	_____	_____	a/b/c/d

a = composite split
b = consecutive
c = colocated
d = consecutive soil sleeves

V Checklist of Field Problems Encountered

	Sample #/ Date(s) of Occurrence /Comments
None	
Pumping Equipment Problems	_____
Sample Filtering Problems	_____
Less Than Required Sample Volume	_____
Low Flow/Recharge Rates	_____
Preservation Problem	_____
Sample Shipment Delay	_____
Federal Express Delay	_____
Other	_____

Additional Explanation (on the back of the form or attach a page)

APPENDIX B

SITE SAFETY PLAN

APPENDIX C

ANALYTICAL AND QUALITY CONTROL PROCESS FOR SPECIAL ANALYTICAL SERVICES METHODS REQUESTED

Analysis of Hexavalent Chromium (Cr+6) in Water by EPA Method 218.4:

Analytes: Chromium, hexavalent

Sample Matrices: Groundwater

Laboratory Procedure and Detection Limits: Follow the EPA Method 218.4 (Atomic Absorption, Chelation-extraction). Contract required detection limit (CRDL) is 10 µg/L Cr^{+6} or lower.

1. Samples are to be transported and stored at 4°C until analysis and validation of results are completed.
2. Domestic and industrial wastes samples are to be filtered prior to the determination of hexavalent chromium.

Contract Holding Times: Contract required analysis holding time is 12 hours from the time of sample receipt by the laboratory.

Calibration Procedure and Criteria:

1. Use at least five calibration standards (not including a zero standard) to obtain a standard calibration curve. The analytical working range must not exceed 10 to 250 µg of chromium per liter.
2. Calibration verification standards at the mid-point concentration are to be analyzed at a frequency of one per group of 10 or fewer samples and at the end of the analysis of a sample delivery group. Recoveries of 90-110% are required.

Internal Quality Control Checks, Control Limits and Corrective Action:

1. Analyze laboratory blanks at the frequency of one per group of 20 or fewer samples. Laboratory blanks must contain less than 10 µg/L Cr^{+6}.
2. Analyze laboratory duplicates at a frequency of one per group of 20 or fewer samples. Relative percent difference (RPD) of less than ± 10% are required.
3. Analyze matrix spikes at a frequency of one per group of 20 or fewer samples. Matrix spike concentrations are to be greater than 30% of the sample concentrations, but spiked samples must not exceed the working range of the standard curve.
4. Samples containing hexavalent chromium concentrations above the calibration range are to be diluted and re-analyzed. Report the results and documentation for both analyses.
5. If above control limits are exceeded, take appropriate actions to correct the problems and re-analyze the affected samples.

Analysis of Hexavalent Chromium (Cr+6) in Water by EPA Method 218.4 (Continued):

Data Calculations and Reporting Units: Calculate the sample results according to Section 8 of Method 218.4. Sample results are to be reported to the nearest µg/L for concentrations less than 10 µg/L Cr^{+6} and to 2 significant figures for concentrations exceeding 10 µg/L Cr^{+6}. All records of analysis and standard curve must be legible and sufficient to recheck all sample concentrations and QC results.

Documentation and Deliverables: Report all bench records tabulating volume of sample used, sample duplicate readings and the average duplicate results, laboratory blanks, samples, laboratory duplicates, matrix spikes, etc. Indicate date and time of analysis. Provide all raw data, including scale readings of standards and calibration curves used to determine sample results. Raw data are to be organized systematically and each page is to be numbered.

Analysis of Cadmium and Chromium in Water by EPA Methods 213.2 and 218.2:

Analytes: Cadmium and Chromium

Sample Matrices: Groundwater

Laboratory Procedure and Detection Limits: For the cadmium analysis, follow the EPA Method 213.2 (Atomic Absorption, Furnace). Contract required detection limit (CRDL) is 1 µg/L Cd or lower. For the chromium analysis, follow the EPA Method 218.2 (Atomic Absorption, Furnace) Contract required detection limit (CRDL) is 5 µg/L Cr or lower.

1. Samples are to be transported and stored at 4°C until analysis and validation of results are completed.
2. Domestic and industrial wastes samples are to be filtered prior to the determination of cadmium or chromium.

Contract Holding Times: Contract required analysis holding time is 35 days from the time of sample receipt by the laboratory.

Calibration Procedure and Criteria:

1. Use at least five calibration standards (not including a zero standard) to obtain a standard calibration curve. The analytical working range must not exceed 10 to 250 µg of cadmium or chromium per liter.
2. Calibration verification standards at the mid-point concentration are to be analyzed at a frequency of one per group of 10 or fewer samples and at the end of the analysis of a sample delivery group. Recoveries of 90-110% are required.

Internal Quality Control Checks, Control Limits and Corrective Action:

1. Analyze laboratory blanks at the frequency of one per group of 20 or fewer samples. Laboratory blanks must contain less than 1 µg/L of Cd for the cadmium samples or less than µg/L Cr.
2. Analyze laboratory duplicates at a frequency of one per group of 20 or fewer samples. Relative percent difference (RPD) of less than ± 10% are required.
3. Analyze matrix spikes at a frequency of one per group of 20 or fewer samples. Matrix spike concentrations are to be greater than 30% of the sample concentrations, but spiked samples must not exceed the working range of the standard curve.
4. Samples containing cadmium and chromium concentrations above the calibration range are to be diluted and re-analyzed. Report the results and documentation for both analyses.
5. If above control limits are exceeded, take appropriate actions to correct the problems and re-analyze the affected samples.

Analysis of Cadmium and Chromium in Water by EPA Methods 213.2 and 218.2: (Continued):

Data Calculations and Reporting Units: Calculate the sample results according to Section 8 of Methods 213.2 and 218.2. Sample results are to be reported to the nearest µg/L for concentrations less than 1 µg/L Cd or 5 µg/L and to 2 significant figures for concentrations exceeding 1 µg/L Cd or 5 µg/L. All records of analysis and standard curve must be legible and sufficient to recheck all sample concentrations and QC results.

Documentation and Deliverables: Report all bench records tabulating volume of sample used, sample duplicate readings and the average duplicate results, laboratory blanks, samples, laboratory duplicates, matrix spikes, etc. Indicate date and time of analysis. Provide all rav data, including scale readings of standards and calibration curves used to determine sample results. Rav data are to be organized systematically and each page is to be numbered.

Waste Extraction Test (WET) Procedure by California Administrative Code Title 26, Section 22-66700 (formerly Title 22)

Analytes: Waste Extraction Test (WET)

Sample Matrices: Liquid, solid and multiphase waste samples

Analytical Procedure: Follow Section 22-66700 of the California Administrative Code Title 26, pages 1550-1553 Refer to Section 22-66699 for a list of inorganic and organic persistent and bioaccumulative toxic substances with the soluble threshold limit concentration (STLC) and total threshold limit concentration (TTLC) values The waste extraction test (WET) is performed when the total concentration of any of the substances listed in Section 22-66699 in the waste sample equals or exceeds the STLC value but does not exceed the TTLC value given for that substance

1 The total concentrations of substances listed in Section 22-66699 are to be determined by analysis of the waste samples which have been prepared according to subsections (c) and (d) of Section 22-66700 Refer to subsection (b) for a list of the methods to be used in the analyses of the total concentration of the substances

2 For liquid samples containing less than five-tenths (0 5) percent by weight of undissolved solids, the samples are to be analyzed directly for substances listed in Section 22-66699 and not be subjected to the WET procedure. Refer to subsection (d) for the proper steps to take if the total concentration is less than the TTLC but exceeds the STLC when expressed on a mg/L basis

3. Follow the extraction procedure as described in subsection (f) The WET extraction solution, which consist of 0 2 M sodium citrate at pH 5 0 ± 0 1, is to be prepared by titrating an appropriate amount of analytical grade citric acid in deionized water with 4 0 N NaOH For the determination of chromium (VI), the extraction solution shall consist of deionized water.

4 For fifty grams of sample, five hundred milliliters of extraction solution is to be used. A ratio of ten milliliter of extraction solution per gram of solid is to be employed depending on the extraction vessel size. The temperature during the 48 hours extraction shall be maintained between 20 and 40 degrees centigrade

5. The proper extraction vessels and filtrate containers shall be utilized For samples to be analyzed for metal elements listed in Section 22-66699(b) and fluoride, clean polyethylene bottles are to be used For organic substances listed in Section 66699(c), a glass container shall be used.

6 For metals analysis, the filtered extracts from the sample and blank extractions are to be acidified with nitric acid to five percent by volume acid content and stored at room temperature or frozen in polyethylene bottles. The extracts to be analyzed for organic substances or fluoride should not be acidified.

Waste Extraction Test (WET) Procedure by California Administrative Code Title 26, Section 22-66700 (Continued)

7 Follow the sample analysis and data treatment procedure described in subsection (g)

Contract Holding Times Contract required analysis holding time for metals is 25 days from the date of sample receipt by the laboratory for the waste extraction test and analysis of the samples For volatiles, the contract required holding time is 10 days from the date of sample receipt by the laboratory for the WET and volatile analysis of the samples For pesticides/PCBs, herbicides and phenols, the contract required holding time is 5 days from the date of sample receipt by the laboratory for the WET and pesticides/PCBs extractions and within 40 days after extraction for the analysis of the extracts.

Calibration Procedure and Criteria· Not applicable

Internal Quality Control Checks, Control Limits and Corrective Action

1 Follow the RAS protocols and quality control requirements for the metals and organic analyses as stated in the inorganic and organic statement of work.
2 Laboratory blanks are to be subjected to the same treatment and extraction but without addition of the sample, at a frequency of one per group of twenty or fewer samples to determine if contamination or any memory effects are occurring Laboratory blanks must be free of the analytes of interest and any interfering compounds at or above the detection limit
3 Laboratory duplicates are to be analyzed at a frequency of one per group of twenty or fewer samples.
4 Analyze matrix spikes at a frequency of one per group of twenty or fewer samples Spike compounds are to be added to the extracts

Data Calculations and Reporting Units Calculate the sample results as specified in the analytical methods All records of analyses and calculations must be legible and sufficient to recheck and recalculate all sample concentrations and QC results

Documentation and Deliverables Report all bench records tabulating weight of waste samples and volume of extraction solution used, sample readings, laboratory blanks, samples, laboratory duplicates, matrix spikes, etc Indicate date and time of extraction/analysis Provide all raw data Raw data are to be organized systematically and each page is to be numbered

APPENDIX D

FIELD MEASUREMENTS FOR PH AND CONDUCTIVITY

FIELD MEASUREMENTS

1. pH

Instrument:

Model DspH-3 pH/Conductivity Meter, Environmental Instruments Inc.

Matrix:

Ground water

Analytical Procedure:

Follow instrument manufacturer's instructions. Stir the electrode in the sample until the reading stabilizes.

Holding Time:

Analyze immediately.

Calibration Procedures and Criteria:

Calibrate according to the instrument manufacturer's instructions. Calibrate pH with a buffer that is within 3 pH units of the test sample. Calibrate for pH in the field before each use. Check the instrument battery daily.

Quality Control Checks, Control Limits, and Corrective Action:

Check the pH meter against a buffer solution after each well is sampled. Recalibrate the meter if the reading is greater than 0.05 pH units of the buffer solution value. Analyze one in every ten samples in duplicate. If the percent difference is greater than 10%, recalibrate the instrument.

Reporting Units:

Report pH to the nearest 0.1 units.

Documentation:

Document instrument calibration, QC checks, and sample readings in the field notebook

RECEIVED DATE

2. CONDUCTIVITY

Instrument

Model DspH-3 pH/Conductivity Meter, Environmental Instruments Inc

Matrix:

Groundwater

Analytical Procedure:

Follow instrument manufacturer's instructions. Record sample temperature with the conductivity measurement.

Holding Time:

Analyze immediately.

Calibration Procedures and Criteria:

Calibrate according to the instrument manufacturer's instructions. Only a single point calibration in the 2K range is required to standardize. However, if unit is to be used primarily in higher ranges, it is recommended that the single point calibration be performed near point of use for best resolution. Conductivity calibration is performed periodically in house. Check the instrument battery daily.

Quality Control Checks, Control Limits, and Corrective Action:

Analyze one in every 10 samples in duplicate. If the percent difference is greater than 10%, recalibrate the instrument.

Reporting Units:

Correct for sample temperature by adding 2% of the reading per degree below 25°C, or by subtracting 2% of the reading per degree above 25°C. Report results as umhos/cm at 25°C to the nearest 1 umhos/cm.

Documentation:

Document instrument calibration, QC checks, sample readings, and calculations in the field notebook.

OPERATING/CALIBRATION INSTRUCTIONS FOR THE MODEL DSPH-3
PH/CONDUCTIVITY METER MANUFACTURED BY ENVIRONMENTAL INSTRUMENTS INC.

PH CALIBRATION IS TO BE PERFORMED IN THE FIELD BEFORE EACH USE.
CONDUCTIVITY CALIBRATION IS PERFORMED PERIODICALLY IN HOUSE.

OPERATING INSTRUCTIONS

1. Slide back electrode compartment to release pH and conductivity electrodes
2. Deploy electrodes in either the 90 or 180 degree measurement position
3. Energize by depressing the On/Off switch once
4. Immerse electrodes into solution to be measured. For proper operation, immerse electrodes ½ their length
5. When energized, the LCD enunciator will indicate which parameter is being measured. E.G. pH, PPM (µS) or PPM (µS) X10. Only the 200K range utilizes the X10 enunciator. 20K and 2K are direct readings. Note selection sequence in #7. Overrange conductivity is indicated by a 1. Proceed to higher range for reading.
6. Agitate electrodes briefly and observe the reading.
7. For each range change desired, depress the pH/PPM (µS) switch once. This unit utilizes 3 ranges of conductivity. The range sequence is: pH-200K-20K-2K.
8. Rinse electrodes thoroughly and replace pH storage cap before returning to storage compartment.

CALIBRATION INSTRUCTIONS

Your instrument has been pre-calibrated prior to shipment. Calibration should be performed periodically with fresh pH buffers and known conductivity solutions.

pH MODE

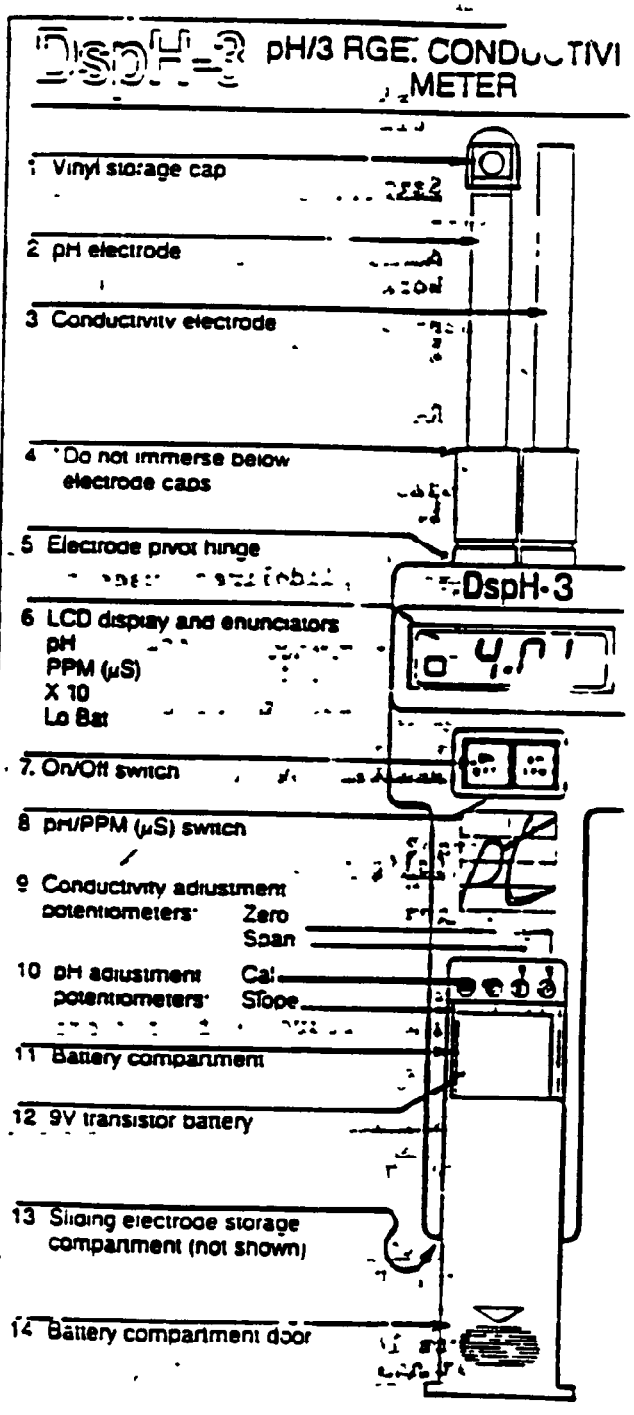
1. Rinse the pH probe in distilled water.
2. Insert in a fresh #7 buffer solution.
3. Slide back the battery compartment cover to the first stop exposing the adjustment pots.
4. Adjust the CAL pot until the display reads 7.00.
5. Remove probes, rinse and insert in a #4 or 10 buffer solution.
6. Adjust the SLOPE pot until the display reads the correct value.

CONDUCTIVITY MODE

1. Rinse probes thoroughly by agitating in pure water.
2. Wipe off conductivity probe and allow to dry.
3. Once dry, conductivity should read 0 in air.
4. Adjust ZERO pot if reading is incorrect.
5. Immerse sensor in known conductivity solution. Adjust SPAN pot to desired conductivity value.
6. Only a single point calibration in the 2K range is required to standardize. However, if unit is to be used primarily in higher ranges, it is recommended that the single point calibration be performed near point of use for best resolution.
7. Rinse probes and return to storage compartment.

HELPFUL HINTS

1. Electrodes should be rinsed thoroughly after each test.
2. Be sure to replace the protective pH cap after each use.
3. Fill the cap with a small amount of pH 4 buffer or tap water.
4. If the conductivity probe does not zero, it may indicate dried solids on the sensor. Clean with a mild detergent solution.
5. For best results, calibrate pH with a buffer that is within 3 pH units of the test sample.
6. Choose a conductivity calibration solution that is near the samples to be measured.
7. Remove the battery when the instrument will be stored for



160 Spear Street Suite 1380
San Francisco California
94105-1535

415/957-0110

ICF TECHNOLOGY INCORPORATED

MEMORANDUM

TO: Carolyn Douglas (H-8-1)
Site Assessment Manager, EPA

THROUGH. for Kent Kitchingman, Chief (P-3-2) I Brad Hunter
Quality Assurance Management Section

FROM: Susan M. Sanders SMS
ESAT Investigation Coordinator

DATE: April 26, 1990

SUBJECT. Review of Riverside Cement Sample and Analysis Plan

The Riverside Cement Sample and Analysis Plan has been reviewed Before final approval, the following comments need to be addressed

1. Section 3.2, Groundwater Pathway

   - A discussion of the Yaeger Construction Company practices should be given to support whatever chemicals might be found in this well. How might this company's disposal practices impact the samples from this well?

   - If no contamination from Riverside is found here, what will be the next step for investigating downgradient groundwater?

   - Have the Crestmore Heights or Rubidoux community wells been sampled? These wells should be located on Figure 3-1. What are the details of these wells?

2 Section 3 5, On-Site Pathway

   - Groundwater sample CD-3, to be analyzed for leachable metals, should be shown on Figure 2-2, and a discussion of the rationale for its location should be described in the appropriate section of the plan

   - The location of the background soil sample JD-2 should be shown on Figure 2-3 and described in the plan in terms of its relative distance from the site

   - Figure 3-1: Sample #G-1 (El Rivino Country Club Well) should be labeled R-1, as it is in the Request for Analysis

3. Table 4-2, Request for Analysis

   - Although duplicate volumes are normally not required for soil samples the WET extraction method may require a portion greater than the suggested 4 ounces to be collected. Collect 8 ounces of the soil at sample location CD-1 for these QC purposes.

4. Section 5.2.1, Surface Soil Grab Sampling

   - Clarify the correspondence reviewed to support the rationale for sample locations. Were these locations suggested by the California DWR or Santa Ana RWQCB? Please specify how the proposed locations related to the correspondence held with the agencies.

If you have any questions concerning this review, please call me at (415) 957-0110.

cc: Tom Huetteman, EPA QAMS Task Monitor

MEMORANDUM

TO: Carolyn Douglas, Site Assessment Manager

FROM: Paul H. Brown, Ecology and Environment, Inc.

THROUGH: Jim James, Ecology and Environment, Inc.

DATE: May 11, 1990

SUBJECT: Response to the Review of the Riverside Cement Sample and Analysis Plan.

1. Section 3.2, Groundwater Pathway

   - A discussion of the Yeager Construction Company's on-site processes and wastewater disposal method and the potential for their wastewater to effect their on-site well was added to this section of the sample plan.

   - If no contamination is detected in the planned sampling project, the next step in investigating down gradient groundwater is undetermined. The sampling included in this scope of work is not a comprehensive characterization of down gradient conditions, only a sampling of the most likely effected downgradient well based on preliminary information. If in the future a more comprehensive study was determined necessary by EPA other downgradient wells could be sampled.

   - No sampling information on the Crestmore Heights Mutual water company well was obtained. FIT did obtain and include in the sample plan some sampling data from a nearby closed Rubidoux Community Services District well. Sampling data from this company's active well, located 3.75 miles from the site, were obtained but revealed no detectable levels of heavy metals which are of concern at the site. The screened depth of this well was added to the sample plan. The active Rubidoux Community Services District well it too far from the site to include it on Figure 3-1. However, the closed nearby well for which analysis were obtained was added to this figure.

     The Crestmore Heights Mutual Water Company well draws water from 250 to 300 feet bgs and is located upgradient of the CKD disposal area. The location of this well was annotated on Figure 3-1. This Well is sampled and analyzed regularly. However, given the nature of this analysis, (BOD, TDS, Nitrates, etc.), it is unsuitable for detecting anomalies in levels of heavy metals near the detection limits, which are the focus of this groundwater sampling effort. FIT therefore, did not obtain these analyses.

pb/rc/priorm

2. Section 3.5, On-site Pathways

   - Sample CD-3 for leachable metals is a soil sample not a groundwater sample and its collection location was relabeled more completely on Figure 2-2 as CD-3, SAS Leachable Metals Soil Sample Location.

     A rationale for this sample location was added to Section 3.1.1, Cement Kiln Dust Sampling on Page 3-1. The location of this sample in the active CKD dump insures that a representative sample of CKD is obtained.

   - The approximate Background Soil Sample collection location has been added to Figure 2-3 and a description of the location has been added to Section 4.2 Soil Sample Analysis. The background sample number in Table 3-7 was corrected to BD-1 to correspond to the request for analysis table.

   - The El Rivino County Club background groundwater sample was relabeled R-1 on Figure 3-1 to correspond to the request for analysis table.

3. Table 4-2, Request for Analysis Table

   - The collection Volume for the WET test soil sample was increased to 8 ounces.

4. Section 5.2.1, Surface Soil Grab Sampling

   - Clarification of the historical reference for the soil sample location at the Jensen Quarry was added to the Sample Plan, as well as the rationale for the CKD sample location at the active CKD dump. The additions were made to Section 5.2.1, Surface Soil Grab Sampling.

pb/rc/priorm

APPENDIX D

Analytical Results of Groundwater and Soil Sampling

160 Spear Street Suite 1380
San Francisco California
94105-1535

415/957-0110

ICF TECHNOLOGY INCORPORATED

07 AUG 1990

MEMORANDUM

DATE August 3, 1990

SUBJECT Review of Analytical Data

FROM Victoria Taylor
ESAT Senior Organic Data Reviewer
ICF Technology, Inc

THROUGH Steve Remaley
Chemist
Quality Assurance Management Section
Environmental Services Branch, OPM (P-3-2)

TO Carolyn Douglas
Site Assessment Manager
Site Evaluation Section (H-8-1)

Attached are comments resulting from Region 9 review of the following analytical data

SITE. Riverside Cement
EPA SITE ID NO
CASE/SAS NO 14192 Memo #1

LABORATORY. Skinner & Sherman Laboratories, Inc (SKINER)
ANALYSIS. RAS Metals

SAMPLE NO.. MYE311, MYE312, MYE313, MYE314, MYE315, MYE316, MYE317 and MYE318

COLLECTION DATE May 30, 1990

REVIEWER. Margie Weiner, ICF Technology, Inc
TELEPHONE NUMBER (415) 882-3061

If there are any questions, please contact the reviewer

Attachment

cc Carla Dempsey, QA Officer, EPA-HQ (OS-230)
Edward Kantor, EMSL-LV, QAD
Deb Szaro, TPO, Region I, ESD X FYI ___ For Action

Data Validation Report

Case No	14192 Memo #1	
Site	Riverside Cement	
Laboratory	Skinner & Sherman Laboratories, Inc (SKINER)	
Reviewer	Margie Weiner	
	ESAT/ICF Technology, Inc	4 Water & 4 Soils
Date	August 3, 1990	for RAS Metals

I Introduction

Skinner & Sherman Laboratories, Inc received four (4) low concentration water samples and four (4) low concentration soil samples on June 8, 1990 for RAS metals analyses Sample numbers MYE311, MYE312, MYE313 and MYE314 are water samples Sample numbers MYE315, MYE316, MYE317 and MYE318 are soil samples The samples were collected on May 30, 1990

No field blanks were submitted Sample number MYE316 is a background sample Sample numbers MYE317/MYE318 are field duplicates The field duplicate pairs were considered to be collocated Field duplicate pairs have a D# suffix (D1 for the first field pair, D2 for the second field pair, etc) in Table 1A.

The analytical results with qualifications are listed in Table 1A This report was prepared in accordance with the EPA Contract Laboratory Program Inorganic Statement of Work for July 1988 and the EPA document "Laboratory Data Validation Functional Guidelines For Evaluating Inorganic Analyses" (1985)

II Validity and Comments

A The results reported in Table 1A for the following analytes are considered as estimates (J) and are usable for limited purposes only

- All results above the Instrument Detection Limit for waters and Method Detection Limit for soils but below the Contract Required Detection Limit (denoted with an "L" qualifier)

Results above the Instrument Detection Limit (IDL) for water samples and Method Detection Limit (MDL) for soil samples but below the Contract Required Detection Limit (CRDL) are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection

B The following results are considered usable for limited purposes because of accuracy problems The results are considered as estimates and are flagged "J" in Table 1A

- Antimony and selenium in sample numbers MYE315 through MYE318
- Mercury in sample numbers MYE315 through MYE317
- Thallium in sample numbers MYE311 through MYE314

Matrix spike recovery results did not meet the 75-125% criteria for accuracy as listed below The possible percent bias for each element is also presented below Mercury and selenium results that are above the MDL are considered quantitatively questionable The results for mercury in sample numbers MYE315 through MYE317 may be biased high and are the maximum concentration at which mercury is present The result for selenium in sample number MYE315 may be biased low and is the minimum concentration at which selenium is present Where the sample results for antimony in sample numbers MYE315 through MYE318, selenium in sample numbers MYE316 through MYE318 and thallium in sample numbers MYE311 through MYE314 are undetected, the detection limits may be biased low

Parameter	MYE312 S Water % Recovery	MYE312 S Water % Bias	MYE317 S Soil % Recovery	MYE317 S Soil % Bias
Antimony	---	---	70	-30
Mercury	---	---	129	+29
Selenium	---	---	38	-62
Thallium	41	-59	---	---

C The following results are considered usable for limited purposes because of accuracy problems The results are considered as estimates and are flagged "J" in Table 1A

- Selenium in sample numbers MYE313 and MYE315

The Method of Standard Addition (MSA) correlation coefficient for selenium in sample numbers MYE313 and MYE315 did not meet the 0 995 criteria for accuracy as shown below The results are considered quantitatively questionable

Sample Number	Parameter	Correlation Coefficient
MYE313	Selenium	0 9914
MYE315	Selenium	0 9936

D The following results are considered usable for limited purposes because of precision problems The results are considered as estimates and are flagged "J" in Table 1A

- Selenium in sample numbers MYE311 through MYE314

Laboratory duplicate result for selenium did not meet the ± CRDL criteria for precision as listed below The results for selenium in the samples listed above are considered quantitatively questionable

Parameter	MYE312 D Lab Dup RPD
Selenium	94

ANALYTICAL RESULTS
TABLE 1A

Case No 14192 Memo #1
Site Riverside Cement
Lab Skinner & Sherman Laboratories, Inc (SKINER)
Reviewer: Margie Weiner, ESAT/ICF Technology, Inc
Date: August 3, 1990

Analysis Type Water Samples for RAS
Total Metals Analyses

Concentration in ug/L

Sample Location	R-1			Y-1			S-1			P-1			Method Blank			IDL			CRDL					
Sample I.D.	MYE311			MYE312			MYE313			MYE314			Lab Blank											
Parameter	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com	Result	Val	Com.	Result	Val	Com
Aluminum	26.9 L	J	a	109 L	J	a	155 L	J	a	13.0 U			13.0 U			13.0			200					
Antimony	12 0 U			12 0 U			12 0 U			12.0 U			12 0 U			12.0			60					
Arsenic	3 4 L	J	a	2 5 L	J	a	2 0 U			2 0 U			2 0 U			2.0			10					
Barium	54 5 L	J	a	80 5 L	J	a	76 9 L	J	a	2 0 U			2.0 U			2 0			200					
Beryllium	1 0 U			1 0 U			1.0 U			1 0 U			1.0 U			1.0			5					
Cadmium	1.0 U			1 0 U			1.2 L	J	a	1.0 U			1.0 U			1.0			5					
Calcium	99200	J	e	116000	J	e	110000	J	e	56.5 L	J	ae	49.3 L	J	a	25.0			5000					
Chromium	6.9 L	J	a	16 3			12.9			4.0 U			4.0 U			4.0			10					
Cobalt	4.0 U			4 0 U			4.0 U			4.0 U			4.0 U			4.0			50					
Copper	8.7 L	J	a	5.0 U			5.6 L	J	a	5 0 U			5.0 U			5.0			25					
Iron	54.1 L	J	aef	719	J	e	614	J	e	49.0 L	J	aef	54.1 L	J	a	6.0			100					
Lead	2.0 U			2 0 U			2.0 U			2.0 U			2.0 U			2.0			3					
Magnesium	10400	J	e	16200	J	e	15700	J	e	54.0 U	J	e	54.0 U			54.0			5000					
Manganese	1.0 U			34 4			26.5			1.0 U			1.0 U			1.0			15					
Mercury	0.20 U			0 20 U			0.20 U			0.20 U			0.20 U			0.2			0.2					
Nickel	5.0 U			5 0 U			5.0 U			5.0 U			5.0 U			5 0			40					
Potassium	3070 L	J	a	3120 L	J	a	3640 L	J	a	89.0 U			89.0 U			89.0			5000					
Selenium	6.0 U	J	d	3 9 L	J	ad	7.6	J	cd	3.0 U	J	d	3 0 U			3.0			5					
Silver	3.0 U			3 0 U			3 0 U			3.0 U			3.0 U			3.0			10					
Sodium	33300			46600			46400			548 L	J	af	1020 L	J	a	41 0			5000					
Thallium	3.0 U	J	b	3 0 U	J	b	15 0 U	J	b	3 0 U	J	b	3 0 U			3 0			10					
Vanadium	8.1 L	J	a	8 3 L	J	a	10 3 L	J	a	3 0 U			3 0 U			3 0			50					
Zinc	6.8 L	J	a	7 8 L	J	a	11 9 L	J	a	7 4 L	J	a	5 1 L	J	a	5 0			20					

Val-Validity Refer to Data Qualifiers in Table 1B.
Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils

D1, D2, etc.-Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank; BG-Background
CRDL-Contract Required Detection Limit

1-1988

ANALYTICAL RESULTS
TABLE 1A

Case No.: 14192 Memo #1
Site: Riverside Cement
Lab: Skinner & Sherman Laboratories, Inc. (SKINER)
Reviewer: Margie Weiner, ESAT/ICF Technology, Inc
Date: August 3, 1990

Analysis Type: Soil Samples for RAS
Total Metals Analyses

Concentration in mg/Kg

Sample Location	VD-1			BD-1			CD-1			CD-2			Method Blank			MDL			CRDL					
Sample I D.	MYE315			MYE316		BG	MYE317		D1	MYE318		D1	Lab Blank											
Parameter	Result	Val	Com	Result	Val	Com.	Result	Val	Com	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com.	Result	Val	Com
Aluminum	8370			12600			8830			9270			2.6 U			2 6			40					
Antimony	2 5 U	J	b	2 5 U	J	b	2 4 U	J	b	2.5 U	J	b	2.4 U			2.4			12					
Arsenic	4 8			3 6			4.3			4.4			0.40 U			0.40			2					
Barium	152	J	e	112	J	e	447	J	e	473	J	e	0.40 U			0.40			40					
Beryllium	0.30 L	J	a	0 45 L	J	a	0.29 L	J	a	0.30 L	J	a	0.20 U			0.20			1					
Cadmium	0 88 L	J	a	0.21 U			2.7			2.9			0.20 U			0.20			1					
Calcium	120000			3990			297000			314000			9.60 L	J	a	5.0			1000					
Chromium	13.1			12 0			3.9			4.6			0.80 U			0.80			2					
Cobalt	9.6 L	J	a	10 2 L	J	a	1.1 L	J	a	1.1 L	J	a	0.80 U			0.80			10					
Copper	70.1			10.3			1.7 L	J	a	2 4 L	J	a	1.0 U			1.0			5					
Iron	17300	J	e	17500	J	e	947	J	e	1020	J	e	6.8 L	J	a	1.2			20					
Lead	11.9			16 8			97.5			106			0.40 U			0.40			0 6					
Magnesium	7720	J	e	4650	J	e	4740	J	e	5070	J	e	10.8 U			10.8			1000					
Manganese	213	J	e	336	J	e	59.1	J	e	61.1	J	e	0.20 U			0.20			3					
Mercury	0.10	J	b	0.10	J	b	0.11	J	b	0.10 U			0.10 U			0.10			0.1					
Nickel	47.6			8 8			1.3 L	J	a	1.8 L	J	a	1.0 U			1.0			8					
Potassium	1180			3370			5910			6350			17.8 U			17.8			1000					
Selenium	1.6	J	bc	0.60 U	J	b	0.61 U	J	b	0.57 U	J	b	0.60 U			0.60			1					
Silver	0.62 U			0 63 U			0.59 U			0.62 U			0.60 U			0 60			2					
Sodium	588 L	J	a	245 L	J	a	1520			1610			16.4 L	J	a	8.2			1000					
Thallium	0.62 U			0 60 U			0.61 U			0.57 U			0.60 U			0.60			2					
Vanadium	29.4			44.3			5.1 L	J	a	5.5 L	J	a	0.81 L	J	a	0.60			10					
Zinc	51.4	J	e	38 5	J	e	59 0	J	e	61.7	J	e	1.0 U			1.0			4					
Percent Solids	93.8 %			94 9 %			97.0 %			97.1 %			----			----			----					

Val-Validity Refer to Data Qualifiers in Table 1B.
Com.-Comments Refer to the Corresponding Section in the Narrative for each letter.
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils

D1, D2, etc.-Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank; BG-Background
CRDL-Contract Required Detection Limit

E The following results are considered usable for limited purposes because of problems seen with the ICP serial dilution These results are considered as estimates and are flagged "J" in Table 1A.

- Calcium, iron and magnesium in sample numbers MYE311 through MYE314
- Barium, iron, magnesium, manganese and zinc in sample numbers MYE315 through MYE318

The ICP serial dilution did not meet the 10% criteria as listed below. A percent difference of 10.2 was obtained for potassium in sample number MYE317 L Since the percent difference is only marginally above the 10% criteria, it is not expected to affect the potassium results in sample numbers MYE315 through MYE318

Parameter	MYE312 L Water % Difference	MYE317 L Soil % Difference
Barium	---	11.7
Calcium	11 1	---
Iron	30 6	16 5
Magnesium	11.5	12 6
Manganese	---	15 5
Zinc	---	20 7

F The following results are considered usable for limited purposes due to possible laboratory contamination problems The results are considered suspect and reported as estimates with a "J" flag in Table 1A

- Iron in sample number MYE311 and MYE314
- Sodium in sample number MYE314

These results were detected above the IDL and less than five times the highest laboratory blank Laboratory blank results which were less than the CRDL and less than twice the IDL or MDL were not used to determine contamination problems

G The soil background sample, MYE316, had a number of parameters with concentration levels at or above those found in the samples

H The 40 CFR 136 and SW-846 holding times were not exceeded for any of the samples There were no holding time problems

I All other results are considered valid and usable for all purposes All QC parameters, other than those discussed above, have been met and are considered acceptable

TABLE 1B
DATA QUALIFIERS

NO QUALIFIER indicates that the data are acceptable both qualitatively and quantitatively.

U Indicates that the parameter is not detected above the concentration listed (Usually the Instrument Detection Limit for waters and the Method Detection Limit for soils with a correction for percent solids)

L Indicates results which fall between the instrument detection limit for waters or the method detection limit for soils and the contract required quantitation limit. Results are considered estimates and usable for limited purposes

J Results are considered estimates and the data valid for limited purposes The results are qualitatively acceptable

R Results are rejected and data are invalid for all purposes

TPO [ ] ACTION [X] FYI Region IX

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO 14192 Memo #1 LABORATORY SKINER

SDG NO. MYE311 DATA USER

SOW 7/88 REVIEW COMPLETION DATE August 3, 1990

NO OF SAMPLES 4 WATER 4 SOIL OTHER

REVIEWER [ ] ESD [X] ESAT [ ] OTHER, CONTRACT/CONTRACTOR

	ICP	AA	Hg	Other
1. HOLDING TIMES	O	O	O	
2 INITIAL CALIBRATIONS	O	O	O	
3 CONTINUING CALIBRATIONS	O	O	O	
4 FIELD BLANKS ("F" = not applicable)	F	F	F	
5 LABORATORY BLANKS	X	O	O	
6. ICS	O			
7. LCS	O	O	O	
8 DUPLICATE ANALYSIS	O	X	O	
9. MATRIX SPIKE	X	X	X	
10 MSA		X		
11. SERIAL DILUTION	X			
12. SAMPLE VERIFICATION	O	O	O	
13 REGIONAL QC ("F" = not applicable)	F	F	F	
14 OVERALL ASSESSMENT	M	M	X	

O = No problems or minor problems that do not affect data usability
X = No more than about 5% of the data points are qualified as either estimated or unusable
M = More than about 5% of the data points are qualified as estimated
Z = More than about 5% of the data points are qualified as unusable

TPO ACTION ITEMS

AREAS OF CONCERN

160 Spear Street Suite 1380
San Francisco California
94105-1535

415/957-0110

ICF TECHNOLOGY INCORPORATED

0 7 AUG 1990

MEMORANDUM

DATE. August 3, 1990

SUBJECT Review of Analytical Data

FROM Victoria Taylor
ESAT Senior Organic Data Reviewer
ICF Technology, Inc

THROUGH. Steve Remaley
Chemist
Quality Assurance Management Section
Environmental Services Branch, OPM (P-3-2)

TO Carolyn Douglas
Site Assessment Manager
Site Evaluation Section (H-8-1)

Attached are comments resulting from Region 9 review of the following analytical data.

SITE· Riverside Cement
EPA SITE ID NO
CASE/SAS NO SAS 5424Y Memo #2

LABORATORY. Keystone Lab-Houston (KEYTX)
ANALYSIS SAS Cadmium and Chromium

SAMPLE NO 5424Y-01, 5424Y-02, 5424Y-03 and 5424Y-04

COLLECTION DATE May 30, 1990

REVIEWER Margie Weiner, ICF Technology, Inc
TELEPHONE NUMBER (415) 882-3061

If there are any questions, please contact the reviewer

Attachment

cc Carla Dempsey, QA Officer, EPA-HQ (OS-230)
Edward Kantor, EMSL-LV, QAD
William Verrett, Region VI Laboratory X FYI ___ For Action

Data Validation Report

Case No	SAS 5424Y Memo #2	
Site	Riverside Cement	
Laboratory	Keystone Lab-Houston (KEYTX)	
Reviewer	Margie Weiner	
	ESAT/ICF Technology, Inc	4 Waters for SAS
Date	August 3, 1990	Cd & Cr Analyses

I Introduction

Keystone Environmental Resources in Houston received four (4) low concentration water samples on June 8, 1990 for SAS low detection limit cadmium and chromium metals analyses The sample numbers are 5424Y-01, 5424Y-02, 5424Y-03 and 5424Y-04 The samples were collected on May 30, 1990 and analyzed on July 9 and 11, 1990

No field blanks, background samples or field duplicates were submitted Cadmium and chromium were analyzed by AA Furnace methods EPA Method 213 2 was followed for cadmium and EPA Method 218 2 for chromium

The analytical results with qualifications are listed in Table 1A This report was prepared in accordance with the EPA Contract Laboratory Program Inorganic Statement of Work for July 1988 and the EPA document "Laboratory Data Validation Functional Guidelines For Evaluating Inorganic Analyses" (1985)

II Validity and Comments

A The results reported in Table 1A for the following analytes are considered as estimates (J) and are usable for limited purposes only

- All results above the Instrument Detection Limit but below the Contract Required Detection Limit (denoted with an "L" qualifier)

Results above the Instrument Detection Limit (IDL) but below the Contract Required Detection Limit (CRDL) are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection

B The following results are considered usable for limited purposes because of accuracy problems The results are considered as estimates and are flagged "J" in Table 1A

- Cadmium in sample numbers 5424Y-01, 5424Y-02, 5424Y-03 and 5424Y-04

The matrix spike recovery result for cadmium did not meet the 75-125% criteria for accuracy as listed below The possible percent bias for cadmium is also presented below Where the sample results

for cadmium in all of the samples listed above are undetected, the matrix spike recovery result shows a severe analytical deficiency and false negatives may exist

Parameter	5424Y-02 S % Recovery	5424Y-02 S % Bias
Cadmium	11 2	-88 8

A 150% matrix spike recovery for chromium was obtained in sample number 5424Y-02 S This high recovery is not expected to affect the data because the 19 4 ug/L sample concentration is greater than four times the 1 ug/L of spike added The spike recovery is therefore not considered accurate

C The 35 day contract required analysis holding time specified in the SAS request was not exceeded for any of the samples There were no holding time problems

D All other results are considered valid and usable for all purposes All QC parameters specified in the SAS Request, other than those discussed above, have been met and are considered acceptable

ANALYTICAL RESULTS
TABLE 1A

Case No SAS 5424Y Memo #2
Site Riverside Cement
Lab Keystone Lab-Houston (KEYTX)
Reviewer Margie Weiner, ESAT/ICF Technology, Inc
Date August 3, 1990

Analysis Type Water Samples for SAS Low Detection Cd and Cr Metals Analyses

Concentration in ug/L

Sample Location / Sample I D	5424Y-01			5424Y-02			5424Y-03			5424Y-04			Method Blank Lab Blank			IDL			CRDL					
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Cadium	0 10 U	J	b	0 10 U	J	b	0.10 U	J	b	0.10 U	J	b	0 10 U			0.10			1					
Chromium	3 8 L	J	a	19 4			12 2			0 30 L	J	a	0 20 U			0 20			5					

G-1104

Val-Validity Refer to Data Qualifiers in Table 1B
Com -Comments Refer to the Corresponding Section in the Narrative for each letter
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils

D1, D2, etc -Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank, BG-Background
CRDL-Contract Required Detection Limit

TABLE 1B
DATA QUALIFIERS

NO QUALIFIER indicates that the data are acceptable both qualitatively and quantitatively.

U Indicates that the parameter is not detected above the concentration listed. (Usually the Instrument Detection Limit for waters and the Method Detection Limit for soils with a correction for percent solids)

L Indicates results which fall between the instrument detection limit for waters or the method detection limit for soils and the contract required quantitation limit Results are considered estimates and usable for limited purposes

J Results are considered estimates and the data valid for limited purposes. The results are qualitatively acceptable.

R Results are rejected and data are invalid for all purposes

TPO [ ] ACTION [X] FYI Region IX

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO SAS 5424Y Memo #2 LABORATORY KEYTX

SDG NO 5424Y-01 DATA USER

SOW 7/88 REVIEW COMPLETION DATE August 3, 1990

NO OF SAMPLES 4 WATER SOIL OTHER

REVIEWER [ ] ESD [X] ESAT [ ] OTHER, CONTRACT/CONTRACTOR

		ICP	AA	Hg	Other
1	HOLDING TIMES		O		
2	INITIAL CALIBRATIONS		O		
3	CONTINUING CALIBRATIONS		O		
4	FIELD BLANKS ("F" - not applicable)		F		
5.	LABORATORY BLANKS		O		
6	ICS				
7	LCS		O		
8	DUPLICATE ANALYSIS		O		
9	MATRIX SPIKE		X		
10	MSA		O		
11.	SERIAL DILUTION				
12	SAMPLE VERIFICATION		O		
13	REGIONAL QC ("F" - not applicable)		F		
14	OVERALL ASSESSMENT		X		

O - No problems or minor problems that do not affect data usability
X - No more than about 5% of the data points are qualified as either estimated or unusable
M - More than about 5% of the data points are qualified as estimated
Z - More than about 5% of the data points are qualified as unusable

TPO ACTION ITEMS

AREAS OF CONCERN.

160 Spear Street Suite 1380
San Francisco California
94105-1535

415/957-0110

ICF TECHNOLOGY INCORPORATED

28 AUG 1990

MEMORANDUM

DATE August 24, 1990

SUBJECT Review of Analytical Data

FROM Victoria Taylor
ESAT Senior Organic Data Reviewer
ICF Technology, Inc

THROUGH Steve Remaley
Chemist
Quality Assurance Management Section
Environmental Services Branch, OPM (P-3-2)

TO Carolyn Douglas
Site Assessment Manager
Site Evaluation Section (H-8-1)

Attached are comments resulting from Region 9 review of the following analytical data

SITE Riverside Cement
EPA SITE ID NO
CASE/SAS NO LVOS15 Memo #3

LABORATORY Region IX, Las Vegas
ANALYSIS RAS and SAS Inorganic Analyses

SAMPLE NO CD3

COLLECTION DATE May 30, 1990

REVIEWER Margie Weiner, ICF Technology, Inc
TELEPHONE NUMBER (415) 882-3061

If there are any questions, please contact the reviewer

Attachment

In Reference to Case No(s)..

LVOS15 Memo #3

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: August 22, 1990

Laboratory Name: Region IX, Las Vegas

Lab Contact: Cheryl Baggett

Region: IX

Regional Contact: Margie Weiner

Call Initiated By: ___ Laboratory X Region

In reference to data for the following sample number(s).
CD3

Summary of Questions/Issues Discussed:

1. Are the interelement correction factors correct? A different result is obtained after recalculation
2. The sample is a soil sample but the LCS on Form 7 (page 25) was reported under aqueous instead of solid, why?
3. Was there a matrix spike performed on the CA WET sample other than the post spike on page 22?
4. For the soil analysis, how come there is no strontium reported in the ICV?
5. The CA WET preparation blank on page 123 is not the same as the ones reported on page 16. Please clarify.

Summary of Resolution:

1. The interelement correction factors have been simplified. There is no need to divide the concentration by 1000, just multiply the element by the factor
2. It was an error in the preparation of the sample. A liquid LCS was digested instead of a solid LCS
3. No, because the leachate wasn't digested. It was analyzed straight after nitric acid acidification of the leachate. The leachates should have been digested prior to analysis
4. Strontium was not reported because it was not included in the ICV solution obtained from the EPA.
5. The laboratory will resubmit a new page 16 (form 3) with the corrected preparation blank concentrations. Received FAX on August 23, 1990

Margie Weiner
Signature

8/23/90
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) Ralph Smiecinski

Data Validation Report

Case No ·	LVOS15 Memo #3	
Site	Riverside Cement	
Laboratory	Region IX, Las Vegas	
Reviewer	Margie Weiner	
	ESAT/ICF Technology, Inc	1 Soil for RAS
Date	August 24, 1990	& SAS Analyses

I Introduction

The Region IX Laboratory in Las Vegas received one (1) soil sample on June 12, 1990 for RAS metals, SAS California Waste Extraction Test (WET) for Target Analyte List (TAL) metals, strontium and low detection cadmium and chromium analyses The sample number is CD3 The sample was collected on May 30, 1990 The sample was extracted for 48 hours on June 24-26, 1990 The soil sample was digested on June 25, 1990 for low detection cadmium and on June 26, 1990 for RAS metals. The soil and CA WET extract were analyzed for the above mentioned parameters on June 27 through August 8, 1990 For mercury, the sample was digested on June 28, 1990 and analyzed on June 28 and July 16, 1990

No field blank, background or duplicate samples were provided for this case. Low detection limit chromium was not analyzed because the laboratory did not have the lamp to perform the analysis

To distinguish between the RAS and the SAS analyses, the soil sample is labeled Soil CD3 and the extract, CA WET CD3, in Table 1A

The analytical results with qualifications are listed in Table 1A This report was prepared in accordance with the EPA Contract Laboratory Program Inorganic Statement of Work for July 1988 and the EPA document "Laboratory Data Validation Functional Guidelines For Evaluating Inorganic Analyses" (1985)

II Validity and Comments

A. The results reported in Table 1A for the following analytes are considered as estimates (J) and are usable for limited purposes only

- All results above the Instrument Detection Limit for the CA WET CD3 and Method Detection Limit for the Soil CD3 but below the Contract Required Detection Limit (denoted with an "L" qualifier)

Results above the Instrument Detection Limit (IDL) for the CA WET CD3 and Method Detection Limit (MDL) for the Soil CD3 but below the Contract Required Detection Limit (CRDL) are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection

B The following results are considered usable for limited purposes because of accuracy problems The results are considered as estimates and are flagged "J" in Table 1A.

- Antimony, lead and thallium in Soil CD3

Matrix spike recovery results did not meet the 75-125% criteria for accuracy as listed below The possible percent bias for each element is also presented below The result for lead is considered quantitatively questionable The result for lead may be biased significantly low and is the minimum concentration at which lead is present. Where the sample results for antimony and thallium are undetected, the detection limits may be biased low.

Parameter	CD3 S Soil % Recovery	CD3 S Soil % Bias
Antimony	36	-64
Lead	7	-93
Thallium	60	-40

A post-digestive spike recovery of 71% was obtained for antimony in Soil CD3. This post-digestive spike recovery result shows a severe analytical deficiency and a false negative may exist

C. The following results are considered usable for limited purposes because of accuracy problems The results are considered as estimates and are flagged "J" in Table 1A

- Antimony, arsenic, lead, mercury, selenium, silver and thallium in CA WET CD3

The CA WET extract was not digested prior to the analyses of the TAL metals as indicated in the method An analytical spike was performed instead of a matrix spike Analytical spike recovery results did not meet the 75-125% criteria for accuracy as listed below. The possible percent bias for each element is also presented below The results for arsenic and selenium are considered quantitatively questionable The results for arsenic and selenium may be biased low and are the minimum concentration at which arsenic and selenium were present Where the sample results for antimony, lead, mercury, silver and thallium are undetected, the detection limits for antimony and thallium may be biased low, and for lead, mercury and silver, the matrix spike recovery result shows a severe analytical deficiency and false negatives may exist

Parameter	CD3 A CA WET % Recovery	CD3 A CA WET % Bias
Antimony	72	-28
Arsenic	58	-42
Lead	29	-71

Parameter	CD3 A CA WET % Recovery	CD3 A CA WET % Bias
Mercury	0	-100
Selenium	61	-39
Silver	0	-100
Thallium	42	-58

D. The following results are considered usable for limited purposes because of calibration problems. The results are considered as estimates and are flagged "J" in Table 1A

- Strontium in CA WET CD3

A continuing calibration verification (CCV) percent recovery of 135 8% (limit is 90-110%) was obtained in the analysis of strontium. The reported result for strontium in CA WET CD3 could be biased approximately 35 8% high

E. The following results are considered usable for limited purposes because of precision problems The results are considered as estimates and are flagged "J" in Table 1A.

- Aluminum, iron and manganese in CA WET CD3

Laboratory duplicate results did not meet the 20% and ± CRDL criteria for precision as listed below The results for aluminum, iron and manganese in CA WET CD3 are considered quantitatively questionable

Parameter	CD3 (CA WET) Lab Dup RPD
Aluminum	28
Iron	49
Manganese	29

F. The following result is considered usable for limited purposes because of problems seen with the ICP serial dilution The result is considered as estimated and is flagged "J" in Table 1A

- Manganese in Soil CD3

The ICP serial dilution did not meet the 10% criteria as listed below

Parameter	CD3S Soil % Difference
Manganese	77 5

G The CA WET extract should have been digested prior to analyses of the TAL metals as indicated in the method Since the extract was preserved in nitric acid after filtration, it is the reviewers opinion that the concentration of the analytes in sample CA WET CD3 would remain essentially unchanged had the sample been digested In this case, the results without any qualifiers are considered acceptable and usable for all purposes

H The reported sodium result in CA WET CD3 is not considered valid due to the presence of sodium in the WET extraction solution used The WET extraction solution consist of 0 2 M sodium citrate at pH 5.0 ± 0.1.

I No initial calibration verification (ICV) standard was performed in the strontium analysis of soil CD3 because the ICV solution that the laboratory obtained from the EPA did not contain strontium This is not expected to affect the data since all of the CCVs were within the 90-110% criteria and from the two-point calibration (500 and 1000 ppb of strontium) performed, the level of the sample was at mid-range of the standards used

J A solid laboratory control sample (LCS) was inadvertently left out when the soil sample was digested A liquid LCS was digested instead. The LCS analysis is designed to serve as a monitor of the efficiency of the digestion procedure. This deficiency is not expected to significantly affect the soil CD3 data because based on past solid LCS laboratory results, all were within the control limits established by EPA

K. The 40 CFR 136 and SW-846 holding times were not exceeded for any of the samples. There were no holding time problems

L. All other results are considered valid and usable for all purposes All QC parameters, other than those discussed above, have been met and are considered acceptable

ANALYTICAL RESULTS
TABLE 1A

Case No · LVOS15 Memo #3
Site Riverside Cement
Lab : Region IX, Las Vegas
Reviewer Margie Weiner, ESAT/ICF Technology, Inc
Date· August 24, 1990

Analysis Type Soil Sample for RAS
Total Metals Analyses

Concentration in mg/Kg

Sample Location / Sample I D	Soil CD3			Lab Blank			MDL			CRDL																	
Parameter	Result		Val	Com	Result		Val	Com	Result		Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	10200				6 3	L	J	a	6 4				40														
Antimony	47 1	U	J	b	4 0	U			4 0				12														
Arsenic	3 3				0 40	U			0.4				2														
Barium	529				0 60	U			0 4				40														
Beryllium	0 20	U			0 20	U			0 2				1														
Cadmium	1 7				0 80	U			1 0				1														
Calcium	323000				68 8	L	J	a	1 6				1000														
Chromium	7 1				1 3	L	J	a	1 0				2														
Cobalt	2 0	U			2 0	U			0 4				10														
Copper	2 3	L	J	a	1 8	L	J	a	1 2				5														
Iron	1340				4 1	L	J	a	9.8				20														
Lead	96 4		J	b	0 40	U			0 2				0 6														
Magnesium	5300	L	J	a	28 6	U			107				1000														
Manganese	37 8		J	f	0 40	U			0 4				3														
Mercury	0 033				0 01	U			0.1				0 1														
Nickel	6 9	L	J	a	6 2	U			4 0				8														
Potassium	6530				23 5	L	J	a	121				1000														
Selenium	0 91	L	J	a	0 40	U			0 6				1														
Silver	0 82	U			0 80	U			0 6				2														
Sodium	1850				86 8	L	J	a	21 4				1000														
Thallium	0 40	U	J	b	0 40	U			0 2				2														
Vanadium	5 4	L	J	a	1 0	U			0 4				10														
Zinc	72 1				0 60	U			0 6				4														
Strontium	122			1	0 40	U			0 4				40														
Percent Solids	98 0	%			---				---				---														

Val-Validity Refer to Data Qualifiers in Table 1B
Com -Comments Refer to the Corresponding Section in the Narrative for each letter
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils

D1, D2, etc -Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank, BG-Background
CRDL-Contract Required Detection Limit

ANALYTICAL RESULTS
TABLE 1A

Case No : LVOS15 Memo #3
Site Riverside Cement
Lab Region IX, Las Vegas
Reviewer Margie Weiner, ESAT/ICF Technology, Inc
Date August 24, 1990

Analysis Type Soil Sample for CA WET Test and Analysis of Extract for Metals

Concentration in ug/L

Sample Location / Sample I D	CA WET CD3			Lab Blank			IDL			CRDL															
Parameter	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Aluminum	17300	J	e	110 U			10			200														
Antimony	231 U	J	c	231 U			21 0			60														
Arsenic	9 8 L	J	ac	2.0 U			2.0			10														
Barium	419 L	J	a	1120			3 0			200														
Beryllium	11 0 U			11 0 U			1 0			5														
Cadmium	6 0 U			1 0 U			1 0			5														
Calcium	2310000			2470 L	J	a	10			5000														
Chromium	195			66 0 U			6 0			10														
Cobalt	110 U			110 U			10			50														
Copper	59 0 L	J	a	33 0 U			3 0			25														
Iron	5930	J	e	110 U			10			100														
Lead	12 0 U	J	c	2 0 U			2 0			3														
Magnesium	79900			1570 U			143			5000														
Manganese	1610	J	e	22 0 U			2 0			15														
Mercury	0 10 U	J	c	0 10 U			0.1			0 2														
Nickel	341 U			341 U			31 0			40														
Potassium	249000			9660			32 0			5000														
Selenium	33 2	J	c	2 0 U			2 0			5														
Silver	44 0 U	J	c	44 0 U			4 0			10														
Sodium	10800000		h	NR		h	10			5000														
Thallium	12.0 U	J	c	2 0 U			2 0			10														
Vanadium	194 L	J	a	55 0 U			5 0			50														
Zinc	33 0 U			514			3.0			20														
Strontium	523	J	d	5 0 U			5 0			200														

Val-Validity Refer to Data Qualifiers in Table 1B
Com -Comments Refer to the Corresponding Section in the Narrative for each letter
IDL-Instrument Detection Limit for Waters, MDL-Method Detection Limit for Soils
NR-Not Reported

D1, D2, etc -Field Duplicate Pairs
FB-Field Blank, EB-Equipment Blank, TB-Travel Blank, BG-Background
CRDL-Contract Required Detection Limit

TABLE 1B
DATA QUALIFIERS

NO QUALIFIER indicates that the data are acceptable both qualitatively and quantitatively.

U Indicates that the parameter is not detected above the concentration listed. (Usually the Instrument Detection Limit for waters and the Method Detection Limit for soils with a correction for percent solids).

L Indicates results which fall between the instrument detection limit for waters or the method detection limit for soils and the contract required quantitation limit. Results are considered estimates and usable for limited purposes

J Results are considered estimates and the data valid for limited purposes. The results are qualitatively acceptable.

R Results are rejected and data are invalid for all purposes

TPO: [ ] ACTION [X] FYI Region IX

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO. LVOS15 Memo #3 LABORATORY Region IX, Las Vegas

SDG NO CD3 DATA USER

SOW 7/88 REVIEW COMPLETION DATE August 24, 1990

NO. OF SAMPLES ____ WATER 1 SOIL ____ OTHER

REVIEWER [ ] ESD [X] ESAT [ ] OTHER, CONTRACT/CONTRACTOR

	ICP	AA	Hg	Sr
1. HOLDING TIMES	O	O	O	O
2. INITIAL CALIBRATIONS	O	O	O	X
3. CONTINUING CALIBRATIONS	O	O	O	X
4. FIELD BLANKS ("F" = not applicable)	F	F	F	F
5. LABORATORY BLANKS	O	O	O	O
6. ICS	O			
7. LCS	X	X		
8 DUPLICATE ANALYSIS	X	O	O	O
9 MATRIX SPIKE	X	X	O	O
10. MSA		O		
11. SERIAL DILUTION	X			
12. SAMPLE VERIFICATION	O	O	O	O
13. REGIONAL QC ("F" = not applicable)	F	F	F	F
14 OVERALL ASSESSMENT	M	M	M	M

O = No problems or minor problems that do not affect data usability
X = No more than about 5% of the data points are qualified as either estimated or unusable
M = More than about 5% of the data points are qualified as estimated
Z = More than about 5% of the data points are qualified as unusable

TPO ACTION ITEMS

AREAS OF CONCERN The extract obtained from the CA WET analysis was not digested prior to the TAL metals analysis and a solid LCS was inadvertently left out when the soil sample was digested

APPENDIX B

SURFACE WATER ANALYTICAL DATA

BACTERIOLOGY
WATER TESTING
HAZARDOUS WASTE TESTING
CALIF DHS CERTIFIED

LABORATORIES
3215 CHICAGO AVENUE RIVERSIDE

E S BABCOCK
& SONS, INC
ESTABLISHED 1915

714 684-1881
FAX 714 684-9738

P O BOX 432
RIVERSIDE CA 92502

10/28/91

To: Riverside Cement Co.
P.O. Box 832
Riverside, CA 92502
Attn: Ray Sisneros

Lab No. 911008-656
Invoice No. 76719

Sample Marked:
Crestmore Lake Water

Submitted	Sampled
RS	McLinda
10/08/91	10/08/91
16.40	10:30

Chain of Custody on file: N

Parameter Name	Results	Parameter Name	Results
Total Hardness as $CaCO_3$	135 mg/L	pH	8.9 units
Calcium (Ca)	39 mg/L	Specific Conductance	640 µmho/cm
Magnesium (Mg)	9 mg/L	Total Filterable Residue	420 mg/L
Sodium (Na)	62 mg/L	Boron (B)	<0.1 mg/L
Potassium (K)	30 mg/L	Total Chromium (Cr)	0.02 mg/L
Total Cations	6.17 me/L		
Total Alkalinity as $CaCO_3$	78 mg/L		
Hydroxide (OH)	none mg/L		
Carbonate (CO_3)	6 mg/L		
Bicarbonate (HCO_3)	82 mg/L		
Sulfate (SO_4)	110 mg/L		
Chloride (Cl)	48 mg/L		
Nitrate (NO_3)	51 mg/L		
Fluoride (F)	0.3 mg/L		
Total Anions	6.03 me/L		
Phenols	<0.005 mg/L		

Date analysis completed: 10/24/91

Notes:

cc: Jimni Company

Edward S. Babcock & Sons, Inc.

Sean H. Jenkins

G-1118

BACTERIOLOGY
WATER TESTING
HAZARDOUS WASTE TESTING
CALIF DHS CERTIFIED

LABORATORIES
3215 CHICAGO AVENUE, RIVERSIDE

E S BABCOCK
& SONS, INC
ESTABLISHED 1906

714/684-1881
FAX 714/684-9738

P O BOX 432
RIVERSIDE, CA 92502

07/11/90

To. Riverside Cement Co.
P.O. Box 832
Riverside, CA 92502
Attn: Ray Sisneros

Lab No. 900619-411
Invoice No. 61431

Sample Marked:
Crestmore Lake Annual
(water)

Submitted	Sampled
RS	RS
06/19/90	6/19
15 30	11 00

Chain of Custody on file Y

Parameter Name	Results
Total Hardness as $CaCO_3$	109 mg/l
Calcium (Ca)	30 mg/l
Magnesium (Mg)	8 mg/l
Sodium (Na)	66 mg/l
Potassium (K)	41 mg/l
Total Cations	6.08 me/l
Total Alkalinity as $CaCO_3$	78 mg/l
Hydroxide (OH)	none mg/l
Carbonate (CO_3)	15 mg/l
Bicarbonate (HCO_3)	64 mg/l
Sulfate (SO_4)	119 mg/l
Chloride (Cl)	49 mg/l
Nitrate (NO_3)	50 mg/l
Fluoride (F)	0.3 mg/l
Total Anions	6.22 me/l
Phenols	.0 005 mg/l

Parameter Name	Results
pH	8.0 units
Specific Conductance	690 µmho/cm
Total Filterable Residue	410 mg/L
Boron (B)	<0.1 mg/L
Total Chromium (Cr)	0.03 mg/L

Notes

cc: Ingmi Co.

Edward S. Babcock & Sons, Inc.

G-1119

BACTERIOLOGY
WATER TESTING
HAZARDOUS WASTE TESTING
CALIF DHS CERTIFIED
PHONE (714) 684 1881
LABORATORIES
3215 CHICAGO AVE

ESTABLISHED 1909
EDWARD S BABCOCK & SONS, INC
P O BOX 432
RIVERSIDE CALIFORNIA 92502

09/11/89

To: Riverside Cement Co.
P.O. Box 832
Riverside, CA 92502
Attn: Ray Signeros

Lab No.	890815-393
Invoice No.	52892

Sample Marked:
Commercial Quarry (water)

Submitted	Sampled
Ray S.	Ray S.
08/15/89	8/15
13:30	9.45

Chain of Custody on file. N

Parameter Name	Results	Parameter Name	Results
Total Hardness as $CaCO_3$	346 mg/L	pH	7.8 units
Calcium (Ca)	105 mg/L	Specific Conductance	970 µmhos
Magnesium (Mg)	20 mg/L	Total Filterable Residue	585 mg/L
Sodium (Na)	71 mg/L	Boron (B)	<0.1 mg/L
Potassium (K)	13 mg/L	Total Chromium (Cr)	<0.01 mg/L
Total Cations	10.39 me/L	Lead (Pb)	<0.005 mg/L
Total Alkalinity as $CaCO_3$	300 mg/L		
Hydroxide (OH)	none mg/L		
Carbonate (CO_3)	none mg/L		
Bicarbonate (HCO_3)	366 mg/L		
Sulfate (SO_4)	116 mg/L		
Chloride (Cl)	67 mg/L		
Nitrate (NO_3)	1 mg/L		
Fluoride (F)	0.6 mg/L		
Total Anions	10.33 me/L		
Phenols	<0.001 mg/L		

Notes:

cc:

Edward S Babcock & Sons, Inc

BACTERIOLOGY
WATER TESTING
HAZARDOUS WASTE TESTING
CALIF DHS CERTIFIED
PHONE (714) 684-1581
LABORATORIES
215 CHICAGO AVE

ESTABLISHED 1906
EDWARD S BABCOCK & SONS, INC.
P O BOX 432
RIVERSIDE CALIFORNIA 92502

05/08/89

To: Regional Water Qlty Cntrl Bd#8
6809 Indiana Ave., Suite 200
Riverside, CA 92506
Attn:

Lab No.	890419-420
Invoice No.	99442

Sample Marked:
Riverside Cement
890419-C S.E. Quarry
Pond Grab water

Commercial

Submitted	Sampled
MGA	
04/19/89 10:25	4/19

Chain of Custody on file. Y

Parameter Name	Results	Parameter Name	Results
Total Hardness as $CaCO_3$	263 mg/L	pH	7.4 units
Calcium (Ca)	80 mg/L	Specific Conductance	860 µmho/cm
Magnesium (Mg)	15 mg/L	Total Filterable Residue	495 mg/L
Sodium (Na)	56 mg/L	Boron (B)	<0.1 mg/L
Potassium (K)	19 mg/L	Iron (Fe)	0.08 mg/L
Ammonium Nitrogen (NH_4-N)	0.6 mg/L		
Total Cations	8.23 me/L		
Total Alkalinity as $CaCO_3$	235 mg/L		
Hydroxide (OH)	none mg/L		
Carbonate (CO_3)	none mg/L		
Bicarbonate (HCO_3)	287 mg/L		
Sulfate (SO_4)	100 mg/L		
Chloride (Cl)	63 mg/L		
Nitrate Nitrogen (NO_3-N)	0.1 mg/L		
Fluoride (F)	0.4 mg/L		
Total Anions	8.58 me/L		
Total Phosphorus (P)	0.07 mg/L		

Notes:

cc:

Edward S. Babcock & Sons, Inc.

G-1121

BACTERIOLOGY
WATER TESTING
HAZARDOUS WASTE TESTING
CALIF DHS CERTIFIED
PHONE (714) 684 1581
LABORATORIES
3215 CHICAGO AVE

ESTABLISHED 1906
EDWARD S BABCOCK & SONS INC
P O BOX 432
RIVERSIDE CALIFORNIA 92502

09/11/89

To: Riverside Cement Co.
P.O. Box 832
Riverside, CA 92502
Attn: Ray Sisneros

Lab No.	890815-391
Invoice No.	52892

Sample Marked:
Crestmore Mine Lake
(water)

Submitted	Sampled
Ray S. 08/15/89 13:30	Ray S. 8/14

Chain of Custody on file

Parameter Name	Results	Parameter Name	Results
Total Hardness as $CaCO_3$	101 mg/L	pH	8.9 units
Calcium (Ca)	29 mg/L	Specific Conductance	780 umho/c
Magnesium (Mg)	14 mg/L	Total Filterable Residue	480 mg/L
Sodium (Na)	85 mg/L	Boron (B)	<0.1 mg/L
Potassium (K)	69 mg/L	Total Chromium (Cr)	0.02 mg/L
Total Cations	8.09 me/L	Lead (Pb)	<0.005 mg/L
Total Alkalinity as $CaCO_3$	88 mg/L		
Hydroxide (OH)	none mg/L		
Carbonate (CO_3)	39 mg/L		
Bicarbonate (HCO_3)	27 mg/L		
Sulfate (SO_4)	175 mg/L		
Chloride (Cl)	60 mg/L		
Nitrate (NO_3)	44 mg/L		
Fluoride (F)	0.6 mg/L		
Total Anions	7.83 me/L		
Phenols	<0.001 mg/L		

Notes.

cc: Tuttle & Taylor Inc.
Attorney's at Law

Edward S. Babcock & Sons, Inc.

G-1122

BACTERIOLOGY
WATER TESTING
HAZARDOUS WASTE TESTING
CALIF DHS CERTIFIED
PHONE (714) 684-1561
LABORATORIES
3215 CHICAGO AVE

ESTABLISHED 1906
EDWARD S BABCOCK & SONS, INC.
P O BOX 432
RIVERSIDE CALIFORNIA 92502

05/08/89

To: Regional Water Qlty Cntrl Bd#8
6809 Indiana Ave., Suite 200
Riverside, CA 92506
Attn:

Lab No.	890419-420
Invoice No.	89442

Sample Marked:
Riverside Cement
890419-C S.E. Quarry
Pond Grab water

Commercial

Submitted	Sampled
MGA 04/19/89 10:25	4/19

Chain of Custody on file: Y

Parameter Name	Results	Parameter Name	Results
Total Hardness as $CaCO_3$	263 mg/L	pH	7.4 units
Calcium (Ca)	80 mg/L	Specific Conductance	860 µmho/cm
Magnesium (Mg)	15 mg/L	Total Filterable Residue	495 mg/L
Sodium (Na)	56 mg/L	Boron (B)	<0.1 mg/L
Potassium (K)	19 mg/L	Iron (Fe)	0.08 mg/L
Ammonium Nitrogen (NH_4-N)	0.6 mg/L		
Total Cations	8.23 me/L		
Total Alkalinity as $CaCO_3$	235 mg/L		
Hydroxide (OH)	none mg/L		
Carbonate (CO_3)	none mg/L		
Bicarbonate (HCO_3)	287 mg/L		
Sulfate (SO_4)	100 mg/L		
Chloride (Cl)	63 mg/L		
Nitrate Nitrogen (NO_3-N)	0.1 mg/L		
Fluoride (F)	0.4 mg/L		
Total Anions	8.58 me/L		
Total Phosphorus (P)	0.07 mg/L		

Notes:

cc:

Edward S. Babcock & Sons, Inc.

G-1123

AGRICULTURAL CONSULTANTS
CHEMISTS
APPROVED WATER LABORATORY

PHONE 684-1881
AREA CODE 714

LABORATORIES
3215 CHICAGO AVE

ESTABLISHED 1906

EDWARD S BABCOCK & SONS, INC

P O BOX 432
RIVERSIDE CALIFORNIA 92502

03/18/87

To: Riverside Cement Co. Riverside
P.O. Box 832
Riverside, CA. 92502
683-3660 x256
Attn: Ray Sisneros

Lab No. 870305-231
Invoice No. 80631

Submitted Sampled

Sample Marked: Riverside Plant Lake Sample
Quarterly List

By Ray S.
Date 3/05/87 3/04
Time 0912

PARAMETER	RESULT	
Sodium (Na)	63	mg/L
Ammonium (NH_4)	0.4	mg/L
Sulfate (SO_4)	125	mg/L
Chloride (Cl)	44	mg/L
Nitrate (NO_3)	45	mg/L
Total Filterable Residue	500	mg/L
Total Suspended Residue	40	mg/L
BOD_5	1	mg/L
Fluoride (F)	0.3	mg/L
Phenols	0.11	mg/L
Boron (B)	<0.1	mg/L
Chromium, total (Cr)	0.01	mg/L

EDWARD S. BABCOCK & SONS, INC.

Allison Mackenzie

AGRICULTURAL CONSULTANTS
CHEMISTS
APPROVED WATER LABORATORY

PHONE 684-1881
AREA CODE 714

LABORATORIES
3215 CHICAGO AVE

ESTABLISHED 1936

EDWARD S. BABCOCK & SONS, INC

P.O. BOX 432
RIVERSIDE, CALIFORNIA 92502

10/4/84

To: Gifford Hill & Co. Inc.
300 E. John W. Carpenter
Irving TX 75062
(214) 258-7176
Attn: Leigh Jenkins

Lab No. 840914-337
Invoice No. 36022

Sample Marked: Commercial

	Submitted	Sampled
By	Leigh	RS
Date	9/14	9/14
Time	9:30	8:28

PARAMETER	RESULT	
Arsenic (As)	<0.01	mg/L
Barium (Ba)	<0.5	mg/L
Cadmium (Cd)	<0.005	mg/L
Chromium, total (Cr)	<0.01	mg/L
Lead (Pb)	0.01	mg/L
Mercury (Hg)	<0.001	mg/L
Selenium (Se)	<0.005	mg/L
Silver (Ag)	<0.01	mg/L

EDWARD S. BABCOCK & SONS, INC

APPENDIX C

ERM-WEST INVESTIGATION METHODS AND FIELD SHEETS

APPENDIX C

INVESTIGATION METHODS

Monitoring Well Installation Procedures

Soil samples were collected from soil borings using a truck-mounted drilling rig equipped with hollow-stem, continuous-flight augers. Soil sampling was conducted at five-foot intervals with a California-modified split-spoon soil sampler inside the hollow-stem augers. The use of hollow-stem augers provided for sample integrity by preventing the cave-in of up-hole soils to the bottom of the boring during drilling. The soil sampler was driven (pounded into the soil) ahead of the augers using a 140-pound hammer dropping 30-inches. The number of blows required to drive the sampler each 6-inch interval was noted on the drilling logs. This sampling technique allowed for the collection of relatively undisturbed soil samples

Soil recovered from one brass sample tube at each sampling interval was examined for soil classification and lithologic description. Soil was examined visually and classified according to the Unified Soil Classification system. A drilling log was maintained which recorded the vertical variations in lithology, water-content, odor, color, texture and organic vapor concentrations of the soils (Appendix C).

One of the three soil sample tubes recovered from each sampling point was preserved for possible laboratory analysis by covering each end of the tube with a film of Teflon® tape secured in place by a plastic cap to provide an airtight seal. Following labeling, sealed samples were refrigerated at the site in a cooler containing pre-frozen Blue Ice® packets. Soil sample tubes were protected from potential exposure to the Blue Ice® and each other by placing them in sealed Glad-Loc® bags Chain-of-custody forms were completed at the time of sampling (Appendix C).

Field Screening (Headspace Tests)

Recovered samples were screened in the field (utilizing the headspace test method) with a 580B ThermoEnvironmental photoionization detector (PID) instrument to determine the concentration of organic vapors. Portions of the samples were placed in a Glad-Loc® bag. The bag was sealed and placed in direct

sunlight for approximately 15 minutes to encourage volatilization of chemical constituents. Following this equilibration period, the total organic vapor concentration in the sample headspace was measured with the PID calibrated to isobutylene.

The field screening data were recorded on the drilling logs as a function of depth and instrument reading (Appendix C). The PID is sensitive to soil moisture, and several soil samples indicated readings when no odor was observed at the ground surface or from soil samples.

Well Construction

The monitoring wells installed during the subsurface investigation at the RCC facility were constructed using a 4-inch-diameter PVC screen of 0.020-inch slot size, and blank PVC riser casing to the surface. Screens were installed five feet below the water table to allow proper sampling of ground water. The bottom of the screen was sealed with a PVC cap.

The total length of the screened interval in each well was 10 feet. A graded filter pack consisting of Clementina Sand #3 or RMC Lonestar sand #3 (as indicated on each field well completion form in Appendix C) was installed into the annular space between the screen and the side of the borehole. The filter pack was extended from the bottom of the screen to a minimum of two feet above the top of the screen. The sand in the filter pack was then settled by using a surge block inside the screen to ensure that "bridging" of the filter pack did not occur.

After the filter pack had been set into place and had adequately settled, a bentonite-chip seal was added into the annular space of the well directly over the filter pack - minimum thickness of two feet. The remaining interval of annular space was tremie grouted to the surface with Volclay grout (a bentonite product) A plastic locking cap was installed at the top of the casing to protect the integrity of the well. Each well casing extended above the ground surface at least one-half foot.

Well Development

Prior to sampling, each monitoring well was developed using a PVC bailer. The purpose of well development was to purge the well of any foreign water that may have been introduced during drilling or completion operations, and to enable the well to produce a ground water sample as representative of original, pre-drilling conditions as possible.

Before initiating well development, water level readings were collected to determine the elevation of ground water in each well. A measuring point was marked on the lip of the locking cap of each well. The depth to ground water was measured with a water level indicator (an electronic sounding device) accurate to 0.01 feet. The volume of water in each well was then calculated.

Development began by removing well water using a 2-inch diameter PVC bailer. Development was considered complete after either the water parameters of pH, temperature and conductivity had stabilized or a total of ten casing volumes had been purged. This procedure normally resulted in the well water being relatively clear and free of suspended sediment. All water produced during well development was contained in 55-gallon sealed drums and will be disposed of in accordance with proper procedures based on the results of ground water analyses. Data concerning the development of each well was noted on a Well Development/Purge Form (Appendix C).

Collection of Ground Water Samples

Ground water was sampled after well development. Ground water samples collected from MW-1 and MW-3 were obtained from just below the air-water interface with a disposable polyethylene bailer and a polypropylene rope dedicated to each well. The ground water samples were immediately transferred to appropriate laboratory-supplied clean sample containers using disposable bottom-emptying devices. For each well, one 1 liter plastic container, one 1 liter amber bottle and two 500 milliliter plastic containers were filled to test for general water analyses (CAC Title 26: general mineral, general physical and inorganic chemical)

Water samples were collected from two wells on site. The wells on site are 60-1 and 88-1, the facility interchanges between these wells for industrial water supply. The day water samples were collected from the wells, 60-1 was being used. A sample from this location was collected from a spigot on the side of the pump. Water was allowed to run through the spigot prior to collecting the sample. In order to collect a sample from 88-1, the water supply for the facility had to be changed from 60-1 to well 88-1. The pump for the well was allowed to run for approximately 45 minutes prior to collecting a water sample from this well. The sample for this well was also collected from a spigot on the side of the pump. Prior to sampling, water was allowed to run through the spigot.

The water samples collected off-site were from wells at YCC and ERCC. The sample collected from the YCC well was taken from a faucet at the car wash on site. ERM-West representatives were told this faucet was the same source for YCC water sampling and that

the pump for the well had been operating all day. ERM-West representatives were informed the well at ERCC was used to irrigate the golf course. The sample for ERCC was therefore taken from a hose connected to a water sprinkler. The samples were taken at the end of the business day allowing the pump for the well to be operating all day.

A label was affixed to each sample container to identify the job number, samplers, date and time of sample collection, analyses requested and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel and any other pertinent field observations, was recorded in the field notebook. Following labeling of the sealed samples, the samples were refrigerated at the site in a cooler with pre-frozen Blue Ice® packets. Chain-of-custody forms were completed at the time of sampling and accompanied the samples to the laboratory (included in Appendix D).

ERM-West, Inc.

Suite 600 • 1920 Main Street • Irvine, California 92714-7210 • (714) 476-3040 • Telefax (714) 476-3053

July 23, 1991

CERTIFICATION

The following geological boring logs contain information generated by formally educated and trained personnel working under my general supervision. Geological field procedures and geological observational criteria used in their preparation are according to protocols either generated or reviewed and approved by me.

Sincerely,

ERM-WEST, INC.

David B. Dunbar, R.G.
Principal-in-Charge
California Registered Geologist #4249

DBD/bd/1231

1 1

Environmental Resources Management

Drilling Log

Project Riverside Cement Owner

Location 1500 Rubidoux Blvd WO Number 1231

Well Number MW-1 Total Depth 125ft Diameter 10 in.

Surface Elevation Water Level Initial 110ft 24-hrs

Screen Dia 4in Length 115ft Slot Size 0.020 in

Casing Dia 4in Length 10ft Type PVC

Drilling Company West Haz. Mat Drilling Method hollow-stem auger

Driller Rodney LaBrosse Log By R VARGAS Date Drilled 6/4/91

Sketch Map

Notes

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
0	TOPSOIL/gravel road			drilling next to berm area, road side - start @ 8.40
4			6 5,5,6	silt, med brown, dry some GRAVEL small
8				sample taken at 8.45AM 0.0ppm
12			12,17,21 10.5-11	silt, med brown, dry
16	SC		12,16,24 15.5-16	SAND, fine to med size, mixed w/ silts dry
20	SW		12,35,50 20.5-21	sample taken at 8.50, 0.0 ppm
24			21,29,33	SAND, fine to med size, dry (road sand), lt, brown
28	SC		16,22,26 25.5-31	sample taken at 9.05AM - last segment 3/6", 0.0 ppm
32				SAND, fine grained, dry, lt brown
36			15,19,26	no sample taken
40	SM		35,50- 40.5-41	silt fine grained, lt brown, dry
44			18,29,50	sample taken at 9.20, 0.0 ppm
48				silt, v fine w/ clay, lt to med brown, dry
				no sample taken
				SAND, silty, fine grained sand, lt brown, dry
				2nd 6" segment only got 3, 3rd - no sample section
				sample taken at 9.45, 0.0 ppm
				SAND, v fine, silty, lt brown, dry
				3rd segment 4/6", no sample taken,

Environmental Resources Management

Drilling Log

Project Riverside Cement Owner

Location 1500 Rubidoux Blvd WO Number 1231

Well Number MW-1 Total Depth 125ft Diameter 10in

Surface Elevation Water Level Initial 110ft 24-hrs

Screen Dia 4" Length 10ft Slot Size 0.020"

Casing Dia 4" Length 115ft. Type PVC

Drilling Company West Hazmat Drilling Drilling Method hollow stem auger

Driller Rodney LaBrosse Log By R VARGAS Date Drilled 6/4/91

Sketch Map

Notes

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
52	SM		20,19,50	Sample taken at 1000 PM, 00 ppm silt, v. fine, mixed w/ clay, med. brown, dense, dry
56	ML		21 37,44	SAND v. fine mixed w/ some silt, GRAY/brown, dry
	SM			no sample collected
60			15,22 35	SAND, silty mixture, lt. brown, dry
			60 60 S	sample collected at 1100, 00 ppm
64				
			23,50-	SAND, v fine w/ silty mixture, brown, dry
68				no sample collected
	ML			silt, v fine, mixed w/ some clay, very dense, hard to drill mec tack
72			29 39 50	brown, 3rd section of sampling to be only rec 3/6", sample taken @ 100 PM
			305-91	dry, 00 ppm
76	SM		31 50-	SAND, v fine mixed w/ silt, lt to med brown, dry
				3rd sleeve not recd, sample not collected
80	ML		30 22 50	silt, v fine mixed w/ clay, v dense, hard to drill, dry
			305-91	3rd sleeve 4/6" sample taken at , 0.0 ppm
84				sand, v fine grained mixed w/ silt, lt brown, dry
	SM		18,41,95	no sample taken/collected
88				
			15,26 30	SAND v fine grained, mixed w/ silt, lt. brown some moisture
92			305 91	sample taken at 1625, 00 ppm
96			19 36,29	SAND, v fine grained, mixed w/ silt, lt brown, moist, cool temp
			455 96	sample taken at 1630, 00 ppm
100				
	ML			

Environmental Resources Management

Drilling Log

Project Riverside Cement Owner

Location 1500 Rubidoux Blvd WO Number 1231

Well Number MW-1 Total Depth 125ft Diameter 10in

Surface Elevation Water Level Initial 110ft. 24-hrs

Screen Dia 4in Length 10ft. Slot Size 0.020in

Casing Dia 4in Length 115ft Type PVC

Drilling Company West Hazmat Drilling Method hollow-stem auger

Driller Rodney La Brosse Log By R VARGAS Date Drilled 6/4&5/91

Sketch Map

Notes

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
102	ML		29,50	silt, v fine grained sand, some clay, med brown, moist sample taken at ; 0 0 ppm
106	SM		25 30,50	sand, v fine grained mixed w/ silt, lt brown, dry but cool temp sample taken at ; 0 0 ppm
108	ML			silt, v fine mixed w/ clay
112	SP		96,50 110.5-111	sand, med to coarse grained, angular, w/ little fines, wet 3rd sleeve not recied, sample taken at 8 25 AM,
116			50,- - 116-116.5	→ 2nd + 3rd sleeve not recvd because of water, sample was collected at 8.05 AM,
120			19 23,28	
124				additional samples were pushed, no sample was recovered
TD 126.5	ML		50,- - 125-125.5	silt, mixed w/ v fine grained sand, med. brown, wet. sample collected at 9 40 AM

ENVIRONMENTAL RESOURCES MANAGEMENT
ERM-WEST

FIELD WELL COMPLETION FORM

Job Name: Riverside Cement Owner: _____

Location: 1500 Rubidoux Blvd. Job #: 1231

Logged By: R VARGAS Reviewed By: _____ Project Manager: B Sterns

Well Number: MW-1 Driller: Rodney LaBrosse

Equipment:
10 Inch Hollow Stem Auger
— Inch Rotary Wash Hours Drilled: 10 hrs.

Gallons of Water Used During Drilling: yes Gallons: 100

Method of Decontamination Prior to Drilling: steam-cleaned

DEVELOPMENT

Method of Development: _____

Development Began Date: _____ Time: _____

Yield: GPM	Time: From: To	Date:
Yield: GPM	Time: From: To	Date:
Yield: GPM	Time: From: To	Date:
Yield: GPM	Time: From: To	Date:

Total Water Removed During Development: _____ Gallons

Description of Turbidity at End of Development: ☐ Clear ☐ Slightly cloudy ☐ Mod. Turbid ☐ Very Muddy

Odor of Water: _____

Water Discharged To: ☐ Ground Surface ☐ Storm Sewer ☐ Drums ☐ Tank Truck ☐ Storage Tank ☐ Other

Depth to Water After Development: _____ Feet

MATERIALS USED

6½ Sacks of Clementina #3 - SANDblasting Sand

~~~28~~ Sacks of Volclay Grout Cement

~500 Gallons of Grout Used

— Sacks of Powdered Bentonite

100 Pounds of Bentonite ~~Pellets~~ Chips (2-50lbs bags)

115 Feet of 4 Inch PVC Blank Casing

10 Feet of 0.020 Inch PVC Slotted Screen

— Feet of — Inch Steel Conductor Casing

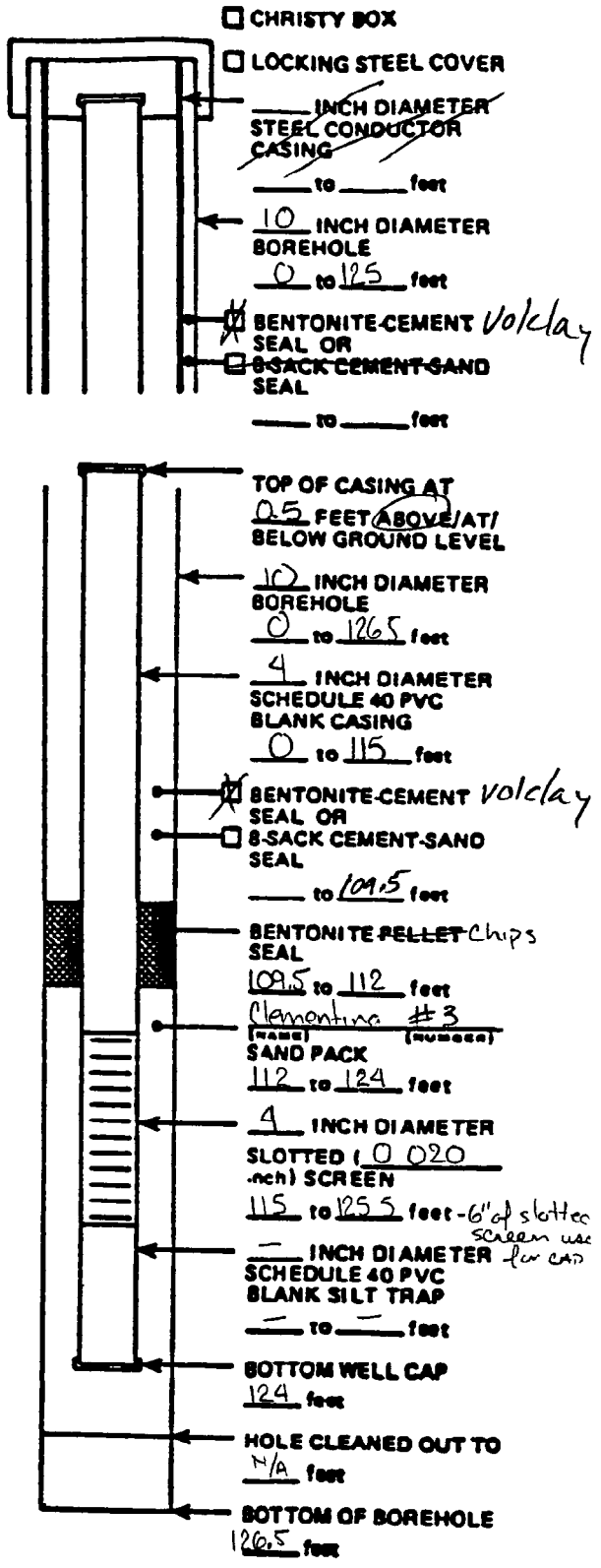
_____ Yard³ Cement-Sand (Redi-Mix) Ordered

_____ Yard³ Cement-Sand (Redi-Mix) Used

Concrete Pumper Used? ___ No ✓ Yes

Name _____

Well Cover Used: ___ Locking Steel Cover ___ Christy Box ✗ Other locking CAP



NOT TO SCALE

ADDITIONAL INFORMATION: _____

H_2O @ 6/6/91, 1545hr ; DTW = 106.7'

G-1135
~~~

Environmental Resources Management

Drilling Log

Project Riverside Cement Owner

Location WO Number 1231

Well Number MW-3 Total Depth 90ft. Diameter 10 in

Surface Elevation Water Level Initial 75ft. 24-hrs

Screen Dia 4in Length 10 ft. Slot Size 0.020 in

Casing Dia 4in Length 80ft. Type PVC

Drilling Company West Hazmat Drilling Method hollow-stem

Driller Rodney LaBrosse Log By R VARGAS Date Drilled 6/6/91

Sketch Map

Notes

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
0	Topsoil			started drilling at 11.15 AM, drilling down 15 min, topsoil, SAND, fine grained mixed w/ silt.
4			10,5,14 SS-6	SAND, fine grained mixed w/ fines, dk brown, loose, dry sample collected at 1.30 PM; — ppm
8				SAND, fine to med grained, mixed w/ fines, some loose pieces of (CKD ?) lt brown; sample collected at 11.35, 40.2 ppm.*
12			14,21,18 10 S 11	
16			12,17,28 15 S 16	SAND, fine grained, lt brown, loose, dry sample taken at 11.95 AM, 45 ppm*
20			14,19,29 20 S 21	SAND, v fine grained mixed w/ silt, med brown, loose, dry sample taken at 1155 AM, 51 ppm*
24			28,41,92 25 S 26	silt, fine mixed w/ clay, brownish/gray w/ iron stains, dry, flaky sample taken at 12 00, 48 ppm*
28			30,36,41 30 S 31	silt, fine mixed w/ clay, grey w/ iron stains, flaky, dry sample taken at 12.10, 45.2 ppm*
32				SAND, v fine grained, mixed w/ silt, lt brown, some iron staining, loose, dry sample taken at 12.15 (not collected), 30 ppm*
36			16,32,40	
40			15,19,39 40 S-41	SAND, v fine grained, mixed w/ silt, lt brown/grey, iron stains; flaky, dry sample taken at 12 25, 36 3 ppm*
44			23,24,35	SAND, silty, v. fine grained, loose, lt brown, dry. sample taken at 12 35, 21 ppm*.
48			19 35 35	sampled at 14'45 PM 00 ppm

* headspace readings are probably due to moisture in the sample versus aromatics in the sample collected. RV

G-1136

Environmental Resources Management

Drilling Log

Project Riverside Cement Owner

Location WO Number 1231

Well Number MW-3 Total Depth 90 ft. Diameter 10 in

Surface Elevation Water Level Initial 75' 24-hrs

Screen Dia 4in. Length 10 ft Slot Size 0.020 in

Casing Dia 4in Length 80 Type PVC

Drilling Company Westhazmat Drilling Method hollow-stem auger

Driller Rodney LaBrosse Log By R VAIZGAS Date Drilled 6/6/91

Sketch Map

Notes

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
52				silt, fine grained, lt brown/grey, -iron staining, flaky; dry
56				↓ no sample collected, — ppm
60	SM		55,13	SAND, fine grained, w/ some fines (silt), lt brown, -- orange tint (iron staining), loose, moist sampled at 15.45 pm, 00 ppm,
64				
68	SP		64,50	SAND, med grained, angular, little fines, well sorted, lt brown 3rd sleeve not recvd, sample taken at 1600, 00 ppm
72			60, 305-7	SAND, med. grained, angular, little fines, well sorted, moist 2nd & 3rd sleeve not recvd; sample taken at 1615, 00 ppm
76	GP		50, 305 76	GRAVEL, small to med. size grained, mixed w/ sands, med grained, little fines, wet, (Gravel made up of granite w/ feldspar + salt + pepper) sample taken at 1630, 00 ppm
80	SW		13,50 805 81	SAND med to large grains, angular, mixed w/ some gravel, little fines, wet; 3rd sleeve not recvd, sampled at 815 AM — ppm
84			50,	SAND med to large grains, angular, mixed w/ some gravel & fines. water addic (heaving sands), no sample recvd, 00 ppm, (850)
88				
T.D 90			48,48 905 91	SAND, med to large grains, angular, some fines, wet sample taken at 905, 00 ppm

ENVIRONMENTAL RESOURCES MANAGEMENT
ERM-WEST

FIELD WELL COMPLETION FORM

Job Name: Riverside Cement Owner: _____

Location: _____ Job #: 1231

Logged By: R Vargas Reviewed By: _____ Project Manager: B Sterns

Well Number: MW-3 Driller: Rodney LaBrosse

Equipment:
10 Inch Hollow Stem Auger
— Inch Rotary Wash Hours Drilled: 4 hrs.

Gallons of Water Used During Drilling: _____ Gallons: 125

Method of Decontamination Prior to Drilling: steam-clean

DEVELOPMENT

Method of Development: _____

Development Began Date: _____ Time: _____

Yield: GPM	Time: From: To	Date:
Yield: GPM	Time: From: To	Date:
Yield: GPM	Time: From: To	Date:
Yield: GPM	Time: From: To	Date:

Total Water Removed During Development: _____ Gallons

Description of Turbidity at End of Development: ☐ Clear ☐ Slightly cloudy ☐ Mod. Turbid ☐ Very Muddy

Odor or Water: _____

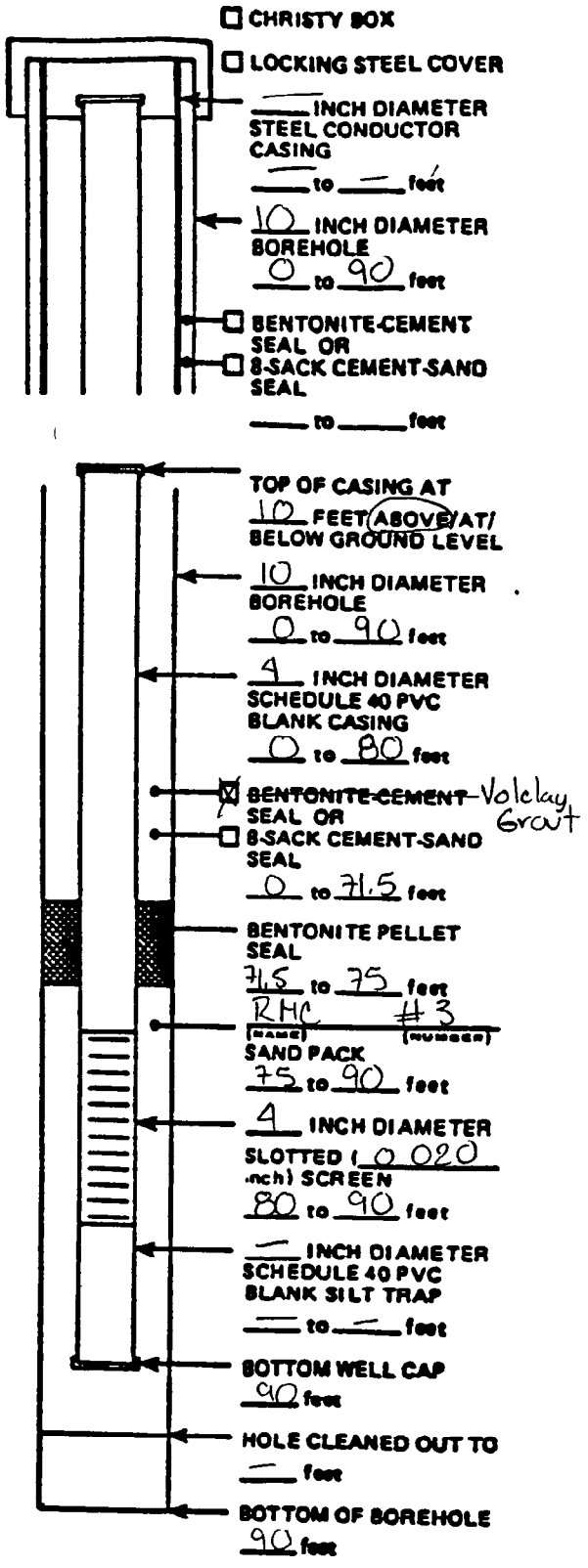
Water Discharged To: ☐ Ground Surface ☐ Storm Sewers ☐ Drums ☐ Tank Truck ☐ Storage Tank ☐ Other

Depth to Water After Development: _____ Feet

MATERIALS USED

2 Sacks of RMC Lonestar #3 Sand
14 Sacks of Volclay Grout Cement
200 Gallons of Grout Used
— Sacks of Powdered Bentonite
50 Pounds of Bentonite Pellets Chips
80 Feet of 4 Inch PVC Blank Casing
10 Feet of 4 Inch PVC Slotted Screen
— Feet of — Inch Steel Conductor Casing
_____ Yard³ Cement-Sand (Redi-Mix) Ordered
_____ Yard³ Cement-Sand (Redi-Mix) Used
Concrete Pumper Used? ___ No ✓ Yes
Name _____

Well Cover Used: ___ Locking Steel Cover ___ Christy Box X Other locking cap



NOT TO SCALE

ADDITIONAL INFORMATION: _____

WELL DEVELOPMENT/PURGE FORM

CLIENT Riverside Cement
LOCATION Riverside
DATE June 11, 1991
WELL NUMBER MW-1
DEVELOPMENT CONTRACTOR West Hazmat Drilling
AIR TEMPERATURE 80°F
WELL CONTRACTOR West Hazmat Drilling
DEVELOPMENT METHOD ss. bailer
CASING VOLUME (GAL) 10.1
WELL CONSTRUCTION DATA (Y/N) Y
FIELD SUPERVISOR RV
TOTAL GALLONS REMOVED 70

TIME	DURATION (MIN)			VOL	TEMP	COND	pH	SUSPEND SOLIDS	TURBIDITY	REMARKS
HRS/MIN	SURGE	PUMP	BAIL	GAL.	°C (F)	---	---	mg/L	NTU	(Disposition of water, etc)
0924	—			—	—	—	—	—	—	DTW = 107.03'
0954	30			—	—	—	—	—	—	False bottom = 124'
0956			1	2	79.0°	8.39×10^2	7.82	NA	V. Turbid	
1025			8	10	76.0	5.18×10^2	7.74			
1037			12	11	73.5	7.61×10^2	7.68			
1044			6	10	74.2	8.53×10^2	7.67			
1115			—	Ø	—	—	—			* Well bailed dry; allowed to recover
1125			10	10	79.3	8.40×10^2	7.70			
1130			5	3	—	—	—			
1155			—	Ø	—	—	—			* Well bailed dry; allowed to recover
1203			7	10	78.8	8.68×10^2	7.70			
1206			—	Ø	—	—	—			* bailing stopped to open 2nd drum
1213			6	13	—	—	—			
1222			—	Ø	—	—	—			* well bailed dry 3rd time
1225			2	2	78.0	8.83×10^2	7.67			

G-1139

SUPERVISOR'S SIGNATURE _____

ERM-West, Inc.
clo/1 00/8 17 90

WELL DEVELOPMENT/PURGE FORM

CLIENT Riverside Cement
LOCATION Riverside
DATE June 11, 1991
WELL NUMBER MW-3
DEVELOPMENT CONTRACTOR West Hazmat Drilling
AIR TEMPERATURE 85°F
WELL CONTRACTOR West Hazmat Drilling
DEVELOPMENT METHOD stainless steel bailer
CASING VOLUME (GAL) 9.7 gal
WELL CONSTRUCTION DATA (Y/N) Y
FIELD SUPERVISOR RV
TOTAL GALLONS REMOVED ~207 gal

TIME	DURATION (MIN)			VOL.	TEMP.	COND.	pH	SUSPEND. SOLIDS	TURBIDITY	REMARKS
HRS/MIN	SURGE	PUMP	BAIL	GAL.	°C (F)	--	--	mg/L	NTU	(Disposition of water, etc.)
1415				—	—	—	—	—	—	DTW = 74.80'
1430	15			—	—	—	—	—	—	False bottom = 90'
1438			7	15	80.6F	9.78×10^2	7.45	NA	V. turbid	
1443			4	10	77.4	10.22×10^2	7.43			
1448			4	10	75.0	10.20×10^2	7.37			
1453			4	10	75.2	10.17×10^2	7.21			
1458			4	10	—	—	—			
1502			3	0	—	—	—			*Bailing stopped to open 2nd drum
1504			3	3	74.0	10.27×10^2	7.32			
1508			3	15	74.5	10.33×10^2	7.23			
1515			6	20	73.7	10.50×10^2	7.26			
1520			4	17	—	—	—			
1525			4	0	—	—	—			*Bailing stopped to open 3rd drum
1529			3	12	73°	10.86×10^2	7.27			
1534			5	18	—	—	—			
1543			8	0	—	—	—			
1546			2	5	73.5	10.48×10^2	7.36			
1547			1	2.5	—	—	—			
1553			5	0	—	—	—			
1600			6	17.5	74.6	10.54×10^2	7.06			
1608			7	20	73.5	10.32×10^2	7.24			
1616			7	22	74.3	10.57×10^2	7.11			

SUPERVISOR'S SIGNATURE _____

ERM-West, Inc.
clo/1 00/8 17 90

G-1140

APPENDIX D

LABORATORY RESULTS

Project # 1231

Site Riverside Cement

Manager Rose Vargas

Lab #(s) 202096

Project Summary

General Chemistry (Units)	DL	ERGC	YCCO	W-60-1	MW 3	W-88-1	MW 1
Alkalinity (mg/L)	10	190	110	190	310	44	200
Chloride (mg/L)	0 50	24	70	43	98	48	99
Color (Color Units)	5	5	10	5	10	10	10
Conductivity (uS)	5 0	800	870	820	1 300	760	1,000
Fluoride (mg/L)	0 10	0 26	0 40	0 24	0 25	0 46	0 34
Hardness (mg/L)	0 66	300	220	260	380	46	330
MBAS (mg/L)	0 10	ND	ND	ND	ND	ND	ND
Nitrate (mg/L)	0 50	20	10	13	ND	10	9 5
Odor (T O N)	1	2	2	2	2	4	4
pH (pH)	NA	7 9	7 4	7 7	7 4	9 2	7 9
Sulfate (mg/L)	2 0	36	97	63	140	110	53
Total Dissolved Solids (mg/L)	0 50	520	520	480	750	440	670
Turbidity (NTU)	0 04	0 39	1 1	0 08	50	1 9	22
Metals (ug/L)							
Aluminum	100	ND	ND	ND	ND	ND	ND
Arsenic	10	ND	ND	ND	ND	ND	ND
Barium	5 0	56	67	66	110	27	62
Cadmium	5 0	ND	ND	ND	ND	ND	ND
Calcium	100	103,000	72,000	89,000	120,000	110,000	110,000
Chromium	10	ND	12	12	ND	13	ND
Copper	10	ND	12	ND	ND	ND	ND
Iron	100	ND	220	ND	ND	310	ND
Lead	3 0	ND	ND	ND	ND	ND	4 3
Magnesium	100	10 000	10 000	9 200	19 000	4,600	14,000
Manganese	4 0	ND	10	ND	140	ND	64
Selenium	5 0	ND	ND	ND	ND	6 8	ND
Silver	10	ND	ND	ND	ND	ND	ND
Sodium	100	31 000	61 000	38,000	77,000	72,000	44,000
Zinc	10	12	830	ND	ND	ND	29

G-1142

Curtis & Tompkins Ltd

Curtis & Tompkins, Ltd., Analytical Laboratories. Since 1878
1250 S. Boyle Ave., Los Angeles, CA 90023, Phone (213) 269-7421, Fax (213) 268-5328

ERM-WEST, INC.
1920 MAIN STREET, SUITE 600
IRVINE, CA 92714
ATTN: ROSE VARGAS

DATE RECEIVED: 06/11/91
DATE REPORTED: 06/20/91

LAB NUMBER: 202096

PROJECT ID: 1231

REPORT ON: SIX WATER SAMPLES ANALYZED AS SPECIFIED ON ATTACHED CHAIN OF CUSTODY

LOCATION: RIVERSIDE CEMENT, 1500 RUBIDOUX BOULEVARD

Reviewed By:

Curtis & Tompkins Ltd

LABORATORY NUMBER: 202096-2
CLIENT: ERM-WEST, INC.
SAMPLE ID: ERGC

DATE SAMPLED: 06/11/91
DATE ANALYZED: SEE BELOW

GENERAL CHEMISTRY

MATRIX: LIQUID

ANALYSIS	RESULT	DETECTION LIMIT	UNITS	METHOD	DATE ANALYZED
Alkalinity	190	10	mg/L	EPA 310.1	06/13
Chloride	24	0.50	mg/L	EPA 325.1	06/14
Color	5	5	COLOR U.	EPA 110.2	06/12
Conductivity	800	5.0	uS	EPA 120.1	06/14
Fluoride	0.26	0.10	mg/L	EPA 340.2	06/16
Hardness	300	0.66	mg/L	EPA 6010	06/20
MBAS	ND	0.10	mg/L	EPA 425.1	06/12
Nitrate	20	0.50	mg/L	EPA 353.2	06/17*
Odor	2	1	T.O.N.	SM 207	06/12
pH	7.9	NA	pH	EPA 150.1	06/13
Sulfate	36	2.0	mg/L	EPA 375.4	06/18
Total Dissolved Solids	520	0.50	mg/L	EPA 160.1	06/19
Turbidity	0.39	0.04	NTU	EPA 180.1	06/13

*Holding time exceeded; result reported should be considered a minimum value.

QUALITY CONTROL SUMMARY

ANALYSIS (units)	SPIKE % REC.	SPIKE DUP. % REC.	RPD
Alkalinity (%)	100	100	<1
Chloride (%)	105	96	9
Conductivity (%)	100	103	3
Fluoride (%)	103	104	1
MBAS	90	90	<1
Nitrate (%)	98	97	1
Sulfate (%)	100	100	<1
Turbidity (%)	99	98	1

ANALYSIS (units)	SAMPLE	SAMPLE DUP.	RPD
pH	7.43	7.44	<1
Hardness (mg/L)	330	330	<1
Total Dissolved Solids (mg/L)	674	678	<1

Curtis & Tompkins Ltd

LABORATORY NUMBER: 202096-3
CLIENT: ERM-WEST, INC.
SAMPLE ID: YCCO

DATE SAMPLED: 06/11/91
DATE ANALYZED: SEE BELOW

GENERAL CHEMISTRY

MATRIX: LIQUID

ANALYSIS	RESULT	DETECTION LIMIT	UNITS	METHOD	DATE ANALYZED
Alkalinity	110	10	mg/L	EPA 310.1	06/13
Chloride	70	0.50	mg/L	EPA 325.1	06/14
Color	10	5	COLOR U.	EPA 110.2	06/12
Conductivity	870	5.0	uS	EPA 120.1	06/14
Fluoride	0.40	0.10	mg/L	EPA 340.2	06/16
Hardness	220	0.66	mg/L	EPA 6010	06/20
MBAS	ND	0.10	mg/L	EPA 425.1	06/12
Nitrate	10	0.50	mg/L	EPA 353.2	06/17*
Odor	2	1	T.O.N.	SM 207	06/12
pH	7.4	NA	pH	EPA 150.1	06/13
Sulfate	97	2.0	mg/L	EPA 375.4	06/18
Total Dissolved Solids	520	0.50	mg/L	EPA 160.1	06/19
Turbidity	1.1	0.04	NTU	EPA 180.1	06/13

*Holding time exceeded; result reported should be considered a minimum value.

QUALITY CONTROL SUMMARY

ANALYSIS (units)	SPIKE % REC.	SPIKE DUP. % REC.	RPD
Alkalinity (%)	100	100	<1
Chloride (%)	105	96	9
Conductivity (%)	100	103	3
Fluoride (%)	103	104	1
MBAS	90	90	<1
Nitrate (%)	98	97	1
Sulfate (%)	100	100	<1
Turbidity (%)	99	98	1

ANALYSIS (units)	SAMPLE	SAMPLE DUP.	RPD
pH	7.43	7.44	<1
Hardness (mg/L)	330	330	<1
Total Dissolved Solids (mg/L)	674	678	<1

Curtis & Tompkins Ltd

LABORATORY NUMBER: 202096-4
CLIENT: ERM-WEST, INC.
SAMPLE ID: W-60-1

DATE SAMPLED: 06/11/91
DATE ANALYZED: SEE BELOW

GENERAL CHEMISTRY

MATRIX: LIQUID

ANALYSIS	RESULT	DETECTION LIMIT	UNITS	METHOD	DATE ANALYZED
Alkalinity	190	10	mg/L	EPA 310.1	06/13
Chloride	43	0.50	mg/L	EPA 325.1	06/18
Color	5	5	COLOR U.	EPA 110.2	06/12
Conductivity	820	5.0	uS	EPA 120.1	06/14
Fluoride	0.24	0.10	mg/L	EPA 340.2	06/16
Hardness	260	0.66	mg/L	EPA 6010	06/20
MBAS	ND	0.10	mg/L	EPA 425.1	06/12
Nitrate	13	0.50	mg/L	EPA 353.2	06/17*
Odor	2	1	T.O.N.	SM 207	06/12
pH	7.7	NA	pH	EPA 150.1	06/13
Sulfate	63	2.0	mg/L	EPA 375.4	06/18
Total Dissolved Solids	480	0.50	mg/L	EPA 160.1	06/19
Turbidity	0.08	0.04	NTU	EPA 180.1	06/13

*Holding time exceeded; result reported should be considered a minimum value.

QUALITY CONTROL SUMMARY

ANALYSIS (units)	SPIKE % REC.	SPIKE DUP. % REC.	RPD
Alkalinity (%)	100	100	<1
Chloride (%)	105	96	9
Conductivity (%)	100	103	3
Fluoride (%)	103	104	1
MBAS	90	90	<1
Nitrate (%)	98	97	1
Sulfate (%)	100	100	<1
Turbidity (%)	99	98	1

ANALYSIS (units)	SAMPLE	SAMPLE DUP.	RPD
pH	7.43	7.44	<1
Hardness (mg/L)	330	330	<1
Total Dissolved Solids (mg/L)	674	678	<1

Curtis & Tompkins Ltd

LABORATORY NUMBER: 202096-5
CLIENT: ERM-WEST, INC.
SAMPLE ID: MW-3

DATE SAMPLED: 06/11/91
DATE ANALYZED: SEE BELOW

GENERAL CHEMISTRY

MATRIX: LIQUID

ANALYSIS	RESULT	DETECTION LIMIT	UNITS	METHOD	DATE ANALYZED
Alkalinity	310	10	mg/L	EPA 310.1	06/13
Chloride	96	0.50	mg/L	EPA 325.1	06/14
Color	10	5	COLOR U.	EPA 110.2	06/12
Conductivity	1,300	5.0	uS	EPA 120.1	06/14
Fluoride	0.25	0.10	mg/L	EPA 340.2	06/16
Hardness	380	0.66	mg/L	EPA 6010	06/20
MBAS	ND	0.10	mg/L	EPA 425.1	06/12
Nitrate	ND	0.50	mg/L	EPA 353.2	06/17*
Odor	2	1	T.O.N.	SM 207	06/12
pH	7.4	NA	pH	EPA 150.1	06/13
Sulfate	140	2.0	mg/L	EPA 375.4	06/18
Total Dissolved Solids	750	0.50	mg/L	EPA 160.1	06/19
Turbidity	50	0.04	NTU	EPA 180.1	06/13

*Holding time exceeded; result reported should be considered a minimum value.

QUALITY CONTROL SUMMARY

ANALYSIS (units)	SPIKE % REC.	SPIKE DUP. % REC.	RPD
Alkalinity (%)	100	100	<1
Chloride (%)	105	96	9
Conductivity (%)	100	103	3
Fluoride (%)	103	104	1
MBAS	90	90	<1
Nitrate (%)	98	97	1
Sulfate (%)	100	100	<1
Turbidity (%)	99	98	1

ANALYSIS (units)	SAMPLE	SAMPLE DUP.	RPD
pH	7.43	7.44	<1
Hardness (mg/L)	330	330	<1
Total Dissolved Solids (mg/L)	674	678	<1

Curtis & Tompkins Ltd

LABORATORY NUMBER: 202096-7
CLIENT: ERM-WEST, INC.
SAMPLE ID: W-88-1

DATE SAMPLED: 06/11/91
DATE ANALYZED: SEE BELOW

GENERAL CHEMISTRY

MATRIX: LIQUID

ANALYSIS	RESULT	DETECTION LIMIT	UNITS	METHOD	DATE ANALYZED
Alkalinity	44	10	mg/L	EPA 310.1	06/13
Chloride	48	0.50	mg/L	EPA 325.1	06/14
Color	10	5	COLOR U.	EPA 110.2	06/12
Conductivity	760	5.0	uS	EPA 120.1	06/14
Fluoride	0.46	0.10	mg/L	EPA 340.2	06/16
Hardness	46	0.66	mg/L	EPA 6010	06/20
MBAS	ND	0.10	mg/L	EPA 425.1	06/12
Nitrate	10	0.50	mg/L	EPA 353.2	06/17*
Odor	4	1	T.O.N.	SM 207	06/12
pH	9.2	NA	pH	EPA 150.1	06/13
Sulfate	110	2.0	mg/L	EPA 375.4	06/18
Total Dissolved Solids	440	0.50	mg/L	EPA 160.1	06/19
Turbidity	1.9	0.04	NTU	EPA 180.1	06/13

*Holding time exceeded; result reported should be considered a minimum value.

QUALITY CONTROL SUMMARY

ANALYSIS (units)	SPIKE % REC.	SPIKE DUP. % REC.	RPD
Alkalinity (%)	100	100	<1
Chloride (%)	105	96	9
Conductivity (%)	100	103	3
Fluoride (%)	103	104	1
MBAS	90	90	<1
Nitrate (%)	98	97	1
Sulfate (%)	100	100	<1
Turbidity (%)	99	98	1

ANALYSIS (units)	SAMPLE	SAMPLE DUP.	RPD
pH	7.43	7.44	<1
Hardness (mg/L)	330	330	<1
Total Dissolved Solids (mg/L)	674	678	<1

Curtis & Tompkins Ltd

LABORATORY NUMBER: 202096-8
CLIENT: ERM-WEST, INC.
SAMPLE ID: MW-1

DATE SAMPLED: 06/11/91
DATE ANALYZED: SEE BELOW

GENERAL CHEMISTRY

MATRIX: LIQUID

ANALYSIS	RESULT	DETECTION LIMIT	UNITS	METHOD	DATE ANALYZED
Alkalinity	200	10	mg/L	EPA 310.1	06/13
Chloride	99	0.50	mg/L	EPA 325.1	06/19
Color	10	5	COLOR U.	EPA 110.2	06/12
Conductivity	1,000	5.0	uS	EPA 120.1	06/14
Fluoride	0.34	0.10	mg/L	EPA 340.2	06/16
Hardness	330	0.66	mg/L	EPA 6010	06/20
MBAS	ND	0.10	mg/L	EPA 425.1	06/12
Nitrate	9.5	0.50	mg/L	EPA 353.2	06/17*
Odor	4	1	T.O.N.	SM 207	06/12
pH	7.9	NA	pH	EPA 150.1	06/13
Sulfate	53	2.0	mg/L	EPA 375.4	06/18
Total Dissolved Solids	670	0.50	mg/L	EPA 160.1	06/19
Turbidity	22	0.04	NTU	EPA 180.1	06/13

*Holding time exceeded; result reported should be considered a minimum value.

QUALITY CONTROL SUMMARY

ANALYSIS (units)	SPIKE % REC.	SPIKE DUP. % REC.	RPD
Alkalinity (%)	100	100	<1
Chloride (%)	101	102	1
Conductivity (%)	100	103	3
Fluoride (%)	103	104	1
MBAS	90	90	<1
Nitrate (%)	98	97	1
Sulfate (%)	100	100	<1
Turbidity (%)	99	98	1

ANALYSIS (units)	SAMPLE	SAMPLE DUP.	RPD
pH	7.43	7.44	<1
Hardness (mg/L)	330	330	<1
Total Dissolved Solids (mg/L)	674	678	<1

LABORATORY NUMBER: 202096-2
CLIENT: ERM-WEST, INC.
SAMPLE ID: ERGC

DATE SAMPLED: 06/11/91
DATE ANALYZED: SEE BELOW

METALS

MATRIX: LIQUID
METHOD: SEE BELOW

METAL	RESULT (ug/L)	DETECTION LIMIT (ug/L)	DATE ANALYZED	EPA METHOD
Aluminum	ND	100	06/20	6010
Arsenic	ND	10	06/19	7060
Barium	56	5.0	06/20	6010
Cadmium	ND	5.0	06/20	6010
Calcium	103,000	100	06/20	6010
Chromium	ND	10	06/20	6010
Copper	ND	10	06/20	6010
Iron	ND	100	06/20	6010
Lead	ND	3.0	06/20	7421
Magnesium	10,000	100	06/20	6010
Manganese	ND	4.0	06/20	6010
Selenium	ND	5.0	06/19	7740
Silver	ND	10	06/20	6010
Sodium	31,000	100	06/20	6010
Zinc	12	10	06/20	6010

QUALITY CONTROL SUMMARY

METAL	RPD	AVG. SPIKE % REC.
Aluminum	2	94
Arsenic	3	99
Barium	4	97
Cadmium	2	92
Calcium	1	93
Chromium	3	95
Copper	2	99
Iron	<1	96
Lead	3	82
Magnesium	<1	92
Manganese	<1	96
Selenium	1	96
Silver	7	83
Sodium	5	89
Zinc	<1	93

LABORATORY NUMBER: 202096-3
CLIENT: ERM-WEST, INC.
SAMPLE ID: YCCO

DATE SAMPLED: 06/11/91
DATE ANALYZED: SEE BELOW

METALS

MATRIX: LIQUID
METHOD: SEE BELOW

METAL	RESULT (ug/L)	DETECTION LIMIT (ug/L)	DATE ANALYZED	EPA METHOD
Aluminum	ND	100	06/20	6010
Arsenic	ND	10	06/19	7060
Barium	67	5.0	06/20	6010
Cadmium	ND	5.0	06/20	6010
Calcium	72,000	100	06/20	6010
Chromium	12	10	06/20	6010
Copper	12	10	06/20	6010
Iron	220	100	06/20	6010
Lead	ND	3.0	06/20	7421
Magnesium	10,000	100	06/20	6010
Manganese	10	4.0	06/20	6010
Selenium	ND	5.0	06/19	7740
Silver	ND	10	06/20	6010
Sodium	61,000	100	06/20	6010
Zinc	830	10	06/20	6010

QUALITY CONTROL SUMMARY

METAL	RPD	AVG. SPIKE % REC.
Aluminum	2	94
Arsenic	3	99
Barium	4	97
Cadmium	2	92
Calcium	1	93
Chromium	3	95
Copper	2	99
Iron	<1	96
Lead	3	82
Magnesium	<1	92
Manganese	<1	96
Selenium	1	96
Silver	7	83
Sodium	5	89
Zinc	<1	93

Curtis & Tompkins Ltd

LABORATORY NUMBER: 202096-4
CLIENT: ERM-WEST, INC.
SAMPLE ID: W-60-1

DATE SAMPLED: 06/11/91
DATE ANALYZED: SEE BELOW

METALS

MATRIX: LIQUID
METHOD: SEE BELOW

METAL	RESULT (ug/L)	DETECTION LIMIT (ug/L)	DATE ANALYZED	EPA METHOD
Aluminum	ND	100	06/20	6010
Arsenic	ND	10	06/19	7060
Barium	86	5.0	06/20	6010
Cadmium	ND	5.0	06/20	6010
Calcium	89,000	100	06/20	6010
Chromium	12	10	06/20	6010
Copper	ND	10	06/20	6010
Iron	ND	100	06/20	6010
Lead	ND	3.0	06/20	7421
Magnesium	9,200	100	06/20	6010
Manganese	ND	4.0	06/20	6010
Selenium	ND	5.0	06/19	7740
Silver	ND	10	06/20	6010
Sodium	38,000	100	06/20	6010
Zinc	ND	10	06/20	6010

QUALITY CONTROL SUMMARY

METAL	RPD	AVG. SPIKE % REC.
Aluminum	2	94
Arsenic	3	99
Barium	4	97
Cadmium	2	92
Calcium	1	93
Chromium	3	95
Copper	2	99
Iron	<1	96
Lead	3	82
Magnesium	<1	92
Manganese	<1	96
Selenium	1	96
Silver	7	83
Sodium	5	89
Zinc	<1	93

Curtis & Tompkins Ltd

LABORATORY NUMBER: 202096-5
CLIENT: ERM-WEST, INC.
SAMPLE ID: MW-3

DATE SAMPLED: 06/11/91
DATE ANALYZED: SEE BELOW

METALS

MATRIX: LIQUID
METHOD: SEE BELOW

METAL	RESULT (ug/L)	DETECTION LIMIT (ug/L)	DATE ANALYZED	EPA METHOD
Aluminum	ND	100	06/20	6010
Arsenic	ND	10	06/19	7060
Barium	110	5.0	06/20	6010
Cadmium	ND	5.0	06/20	6010
Calcium	120,000	100	06/20	6010
Chromium	ND	10	06/20	6010
Copper	ND	10	06/20	6010
Iron	ND	100	06/20	6010
Lead	ND	3.0	06/20	7421
Magnesium	19,000	100	06/20	6010
Manganese	140	4.0	06/20	6010
Selenium	ND	5.0	06/19	7740
Silver	ND	10	06/20	6010
Sodium	77,000	100	06/20	6010
Zinc	ND	10	06/20	6010

QUALITY CONTROL SUMMARY

METAL	RPD	AVG. SPIKE % REC.
Aluminum	2	94
Arsenic	3	99
Barium	4	97
Cadmium	2	92
Calcium	1	93
Chromium	3	95
Copper	2	99
Iron	<1	96
Lead	3	82
Magnesium	<1	92
Manganese	<1	96
Selenium	1	96
Silver	7	83
Sodium	5	89
Zinc	<1	93

Curtis & Tompkins Ltd

LABORATORY NUMBER: 202096-7
CLIENT: ERM-WEST, INC.
SAMPLE ID: W-88-1

DATE SAMPLED: 06/11/91
DATE ANALYZED: SEE BELOW

METALS

MATRIX: LIQUID
METHOD: SEE BELOW

METAL	RESULT (ug/L)	DETECTION LIMIT (ug/L)	DATE ANALYZED	EPA METHOD
Aluminum	ND	100	06/20	6010
Arsenic	ND	10	06/19	7060
Barium	27	5.0	06/20	6010
Cadmium	ND	5.0	06/20	6010
Calcium	110,000	100	06/20	6010
Chromium	13	10	06/20	6010
Copper	ND	10	06/20	6010
Iron	310	100	06/20	6010
Lead	ND	3.0	06/20	7421
Magnesium	4,600	100	06/20	6010
Manganese	ND	4.0	06/20	6010
Selenium	6.8	5.0	06/19	7740
Silver	ND	10	06/20	6010
Sodium	72,000	100	06/20	6010
Zinc	ND	10	06/20	6010

QUALITY CONTROL SUMMARY

METAL	RPD	AVG. SPIKE % REC.
Aluminum	2	94
Arsenic	3	99
Barium	4	97
Cadmium	2	92
Calcium	1	93
Chromium	3	95
Copper	2	99
Iron	<1	96
Lead	3	82
Magnesium	<1	92
Manganese	<1	96
Selenium	1	96
Silver	7	83
Sodium	5	89
Zinc	<1	93

Curtis & Tompkins Ltd

LABORATORY NUMBER: 202096-8
CLIENT: ERM-WEST, INC.
SAMPLE ID: MW-1

DATE SAMPLED: 06/11/91
DATE ANALYZED: SEE BELOW

METALS

MATRIX: LIQUID
METHOD: SEE BELOW

METAL	RESULT (ug/L)	DETECTION LIMIT (ug/L)	DATE ANALYZED	EPA METHOD
Aluminum	ND	100	06/20	6010
Arsenic	ND	10	06/19	7060
Barium	62	5.0	06/20	6010
Cadmium	ND	5.0	06/20	6010
Calcium	110,000	100	06/20	6010
Chromium	ND	10	06/20	6010
Copper	ND	10	06/20	6010
Iron	ND	100	06/20	6010
Lead	4.3	3.0	06/20	7421
Magnesium	14,000	100	06/20	6010
Manganese	84	4.0	06/20	6010
Selenium	ND	5.0	06/19	7740
Silver	ND	10	06/20	6010
Sodium	44,000	100	06/20	6010
Zinc	29	10	06/20	6010

QUALITY CONTROL SUMMARY

METAL	RPD	AVG. SPIKE % REC.
Aluminum	2	94
Arsenic	3	99
Barium	4	97
Cadmium	2	92
Calcium	1	93
Chromium	3	95
Copper	2	99
Iron	<1	96
Lead	3	82
Magnesium	<1	92
Manganese	<1	96
Selenium	1	96
Silver	7	83
Sodium	5	89
Zinc	<1	93

ABBREVIATIONS

BTEX - Benzene, Toluene, Ethyl Benzene, and Total Xylenes.

CCR - California Code of Regulations.

cm3 - Cubic centimeter.

DHS - California Department of Health Services.

EPA - United States Environmental Protection Agency.

Kg - kilogram.

L - Liter.

LUFT - Leaking Underground Fuel Tank.

mg - Milligrams.

M3 - Cubic meter.

1umhos/cm - uS/cm - Micro Siemens/centimeter

NA - Not Applicable.

ND - Not Detected at or above the defined detection limit.

ppb - Parts Per Billion.

ppm - Parts per Million.

RPD - Relative percent difference.

STLC - Soluble Threshold Limit Concentration.

Surr. - Surrogates.

TCLP - Toxicity Characteristic Leaching Procedure.

TEH - Total Extractable Petroleum Hydrocarbons.

Title 26 - Title 26 of the California Code of Regulations (CCR).

TR - Trace

TTLC - Total Threshold Limit Concentration.

TVH - Total Volatile Hydrocarbons.

ug - Micrograms.

WET - Waste Extraction Test.

20209

CHAIN OF CUSTODY AND SAMPLE IDENTIFICATION RECORD

ERM-WEST, INC.
1920 Main Street, Suite 600
Irvine, CA 92714
(714) 476-3040

Client: Riverside Cement
Sampler(s): R Vargas + C Cogniberis
Date: 6/11/91
Weather: @ 76°F - 80°F, Cly

Job Location: 1500 Rubidoux Blvd
Job Number: 1231
Number of Samples Collected: 30

Sample ID Number	Time	Sample Type: Water Comp	Sample Type: Water Grab	Sample Type: Soil Comp	Sample Type: Soil Grab	Volume	Containers Number/ Type	Preservative (Y/N)	Iced (Y/N)	Sampling Method	Analyses
W 44-1	16.45		X			1 l	Amber	N	Y	Bailer	CCR T26 Gen min Gen phys Inorganics *
W-44-1	16:45					1 l	Plastic				
W-44-1	16:45					500ml	2/Plastic				
ERGC	1745					1 l	Amber			Hose	
ERGC	1745					1 l	Plastic				
ERGC	1745					500ml	2/plastic				
YC Co	1800					1 l	Amber			Spigot	
YC Co	1800					1 l	Plastic				
YC CO	1800					500 ml	2/Plastic				
W-60-1	1820					1 l	Amber				

G-1157

Comments
* please hold until 6/12/91 in afternoon
DO NOT ANALYZE W/O RELEASE

Custody Record	Signature/Date/Time
Relinquished	R Vargas 6/11/91 11:35pm
Received	J P Hahn 6/11/91 11:35pm
Relinquished	
Received	
Relinquished	
Received	

Receiving Laboratory Name/Address
Curtis & Tompkins

202096

CHAIN OF CUSTODY AND SAMPLE IDENTIFICATION RECORD

ERM-WEST, INC.
1920 Main Street, Suite 600
Irvine, CA 92714
(714) 476-3040

Client: Riverside Cement
Sampler(s): RV & CC
Date: 6/11/91
Weather: 70°F → 85°F, dry

Job Location: 1500 Rubidoux Blvd.
Job Number: 1231
Number of Samples Collected: 30

Sample ID Number	Time	Sample Type: Water Comp	Sample Type: Water Grab	Sample Type: Soil Comp	Sample Type: Soil Grab	Volume	Containers Number/ Type	Preservative (Y/N)	Iced (Y/N)	Sampling Method	Analyses
W-60-1	1820		X			1 l	Plastic	N	Y	Spigot	CCR T26 Gen min Gen phys inorganics
W-60-1	1820					500 ml	2/plastic				
MW-3	1840					1 l	Amber			bailer	
MW-3	1840					1 l	Plastic				
MW-3	1840					500 ml	2/Plastic				
W-50-1	1900					1 l	Amber				
W-50-1	1900					1 l	Plastic				
W-50-1	1900					500 ml	2/Plastic				
W-88-1	1810					1 l	Amber			Valve	
W-88-1	1810					1 l	Plastic				

G-1158

Comments
* please hold until 6/12/91 in afternoon
DON'T ANALYZE w/o RELEASE

Custody Record
Relinquished: Rose Vaughn 6/11/91 11:35 pm
Recieved: J P Garvin 6/11/91 11:35 pm
Relinquished:
Recieved:
Relinquished:
Recieved:

Signature/Date/Time

Receiving Laboratory Name/Address
C & T

202096

CHAIN OF CUSTODY AND SAMPLE IDENTIFICATION RECORD

ERM-WEST, INC.
1920 Main Street, Suite 600
Irvine, CA 92714
(714) 476-3040

Client: Riverside Cement
Sampler(s): RV / CLO
Date: 6/11/91
Weather: Hot 70-85°F Dry

Job Location: 1500 Rubidoux Blvd.
Job Number: 1231
Number of Samples Collected: 30

Sample ID Number	Time	Sample Type: Water Comp	Sample Type: Water Grab	Sample Type: Soil Comp	Sample Type: Soil Grab	Volume	Containers Number/ Type	Preservative (Y/N)	Iced (Y/N)	Sampling Method	Analyses
W-88-1	1810		X			500 ml	2/Plastic	N	Y	Valve	CCR: T26: Generic mit ben phy inorganics *
MW-1	1940					1 l	Amber			bailer	
MW-1	1940					1 l	Plastic				
MW-1	1940					500 ml	2/Plastic				
W-25-1	1930					1 l	Amber			Spigot	
W-25-1	1930					1 l	Plastic				
W-25-1	1930					500 ml	2/Plastic				
W-77-1	1920					1 l	Amber			bailer	
W-77-1	1920					1 l	Plastic				
W-77-1	1920					500 ml	2/Plastic				

✓ G-1159

Comments
* please hold until 6/12/91 until afternoon
DON'T ANALYZE w/o RELEASE

Custody Record — Signature/Date/Time
Relinquished: Rose Vargas 6/11/91 11 35
Received: J P Hamm 6/11/91 11 35 pm
Relinquished:
Received:
Relinquished:
Received:

Receiving Laboratory Name/Address
C & T

APPENDIX E

ERM-WEST FIELD QA/QC PROCEDURES

FIELD QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

The QA/QC procedures described in this subsection provide a system of checks designed to minimize errors and to ensure that all work is of the highest reasonable quality. Although QA/QC is an important component of each aspect of a project, it is of fundamental importance in the collection and analysis of soil and ground water samples. The following paragraphs describe the QA/QC procedures followed to ensure that samples obtained were precise and representative of actual conditions.

Soil Sampling QA/QC

Field QA/QC procedures for soil sampling included:

- complete steam cleaning of drilling equipment prior to each drilling;
- cleaning sampler and sample tubes by Alconox® solution prior to soil sampling;
- using of disposable gloves during sampling procedures to reduce chances of cross contamination; and
- preparing sample labels carefully and cross-comparing with chain-of-custody lists and field notes.

Ground Water Sampling QA/QC

Field QA/QC procedures for ground water sampling included:

- complete cleaning of all development equipment in an Alconox® and water solution prior to the development of each well;
- using disposable bailers and bottom-emptying devices with dedicated polypropylene ropes;
- proceeding from 'least' to 'most' contaminated well (if known); and
- preparing all sample labels carefully and cross-comparing against chain-of-custody lists and field notes.

File EPA F,T/S,P

Riverside Cement Company

Environmental Office:
1490 Rubidoux Boulevard • Riverside, California 92509
Mailing Address: P.O. Box 56040 • Riverside, California 92517

Phone: (909) 683-6458
Phone: (909) 683-3660, ext. 405
Fax/Voice Mail: (909) 686-5703

October 12, 1994

Mr. Jim Quint, Site Assessment Manager
U. S. E. P. A., Region IX
Mail Stop H-8-1
75 Hawthorne Street
San Francisco, CA 94105

Subject: Site Inspection Prioritization Report - Riverside Cement Company
Crestmore Plant - CAD 063844443

Dear Mr. Quint:

Enclosed is Riverside Cement Company's response to the Site Inspection Prioritization Report (SIP) by Mr. Daniel Wong of Bechtel Environmental, Inc. dated June 22, 1994. The delay in forwarding these comments to you was to allow our consultant and Hydrogeologist, ERM-West, sufficient time to thoroughly review the Bechtel report and prepare a clear, concise and complete statement regarding the assumed "releases" of chromium from the Crestmore Plant cement kiln dust disposal site.

In your review of this report, please note that Mr. Sterns, ERM-West, disagrees with the SIP report that a "release" has occurred. We believe your review of the facts will lead you and your staff to the same ERM-West conclusions:

1 The El Rivino and Yeager wells, used by E&E and Bechtel are not hydraulically upgradient and downgradient. Drawing any conclusions between the test results of these two wells is meaningless and "no release" to groundwater can be determined.

2. The upgradient and downgradient wells located and sampled by ERM-West, did not demonstrate a release of chromium (or any other metal) to groundwater.

This should lead EPA to close the Crestmore file with a "No Further Action" decision.

We would like to set up an appointment with you, your staff and the site investigation staff to discuss these findings and comments. Please let us know a convenient time for this meeting. If you have any questions, please call me at 909/683-6458 or Pat Hill at 909/683-3660.

Sincerely,

Eugene M. Kulesza
Manager of Regulatory Matters

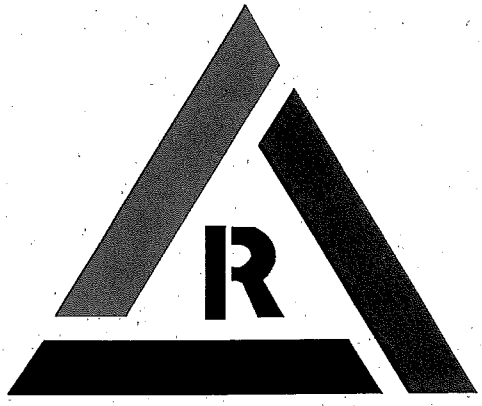
EMK/bs
SIPRPLY.O94

cc: W. McCormick
F. Sheets
P. Hill
P. Cafferty
B. Sterns

G-1162

APPENDIX C

RWQCB Documents



Riverside Cement Company

CLOSURE PLAN
CEMENT KILN DUST DISPOSAL AREA AND BOILER BLOWDOWN POND

Prepared for

Crestmore Facility
Riverside Cement Company
Riverside County, California

Prepared by

ERM-West, Inc.

1920 Main Street, Suite 600
Irvine, California

August 1991

TABLE OF CONTENTS

	Page
LIST OF FIGURES	iii
SECTION 1	
1.0 INTRODUCTION	1-1
1.1 Background	1-1
1.2 Site Conditions	1-2
1.3 Hydrogeology	1-2
1.4 Cement Kiln Dust Disposal Areas	1-5
1.5 Boiler Blowdown Disposal	1-5
SECTION 2	
2.0 CLOSURE AND POST-CLOSURE PROCEDURES	2-1
2.1 Cement Kiln Dust Closure Procedures	2-1
2.1.1 Settlement	2-2
2.1.2 Cover Material	2-2
2.1.3 Post Closure Maintenance Activities	2-2
2.2 Boiler Blowdown Pond Closure	2-3
2.2.1 Closure Overview	2-3
2.2.2 Cover Material	2-3
2.2.3 Settlement Projections	2-4
2.2.4 Post Closure Maintenance Activities	2-4
2.3 Post Closure Land-Use	2-4
SECTION 3	
3.0 CLOSURE SCHEDULE	3-1
SECTION 4	
4.0 ESTIMATED COSTS	4-1

TABLE OF CONTENTS

APPENDIX A

GROUNDWATER QUALITY DATA: PRODUCTION WELLS
LABORATORY REPORTS

APPENDIX B

CRESTMORE MINING AND RECLAMATION PLAN

LIST OF FIGURES

Figure		Following Page
FIGURE 1-1	Site Location	1-1
FIGURE 1-2	Closure Sites: Cement Kiln Dust Disposal Areas	1-1
FIGURE 1-3	Cross-Section at 1350 N	1-2
FIGURE 1-4	Ground Water Contour Map	1-3
FIGURE 1-5	Ground Water Temperature Map	1-3

SECTION 1

1.0 INTRODUCTION

This closure plan for the Cement Kiln Dust and Boiler Blowdown Pond has been prepared to meet the provisions of California Administrative Code, Title 23, Chapter 3, Subchapter 15 (Waste Discharges of Waste to Land). This section summarizes the site background, facility site conditions, groundwater history, and cement kiln dust and boiler blowdown disposal areas.

1.1 Background

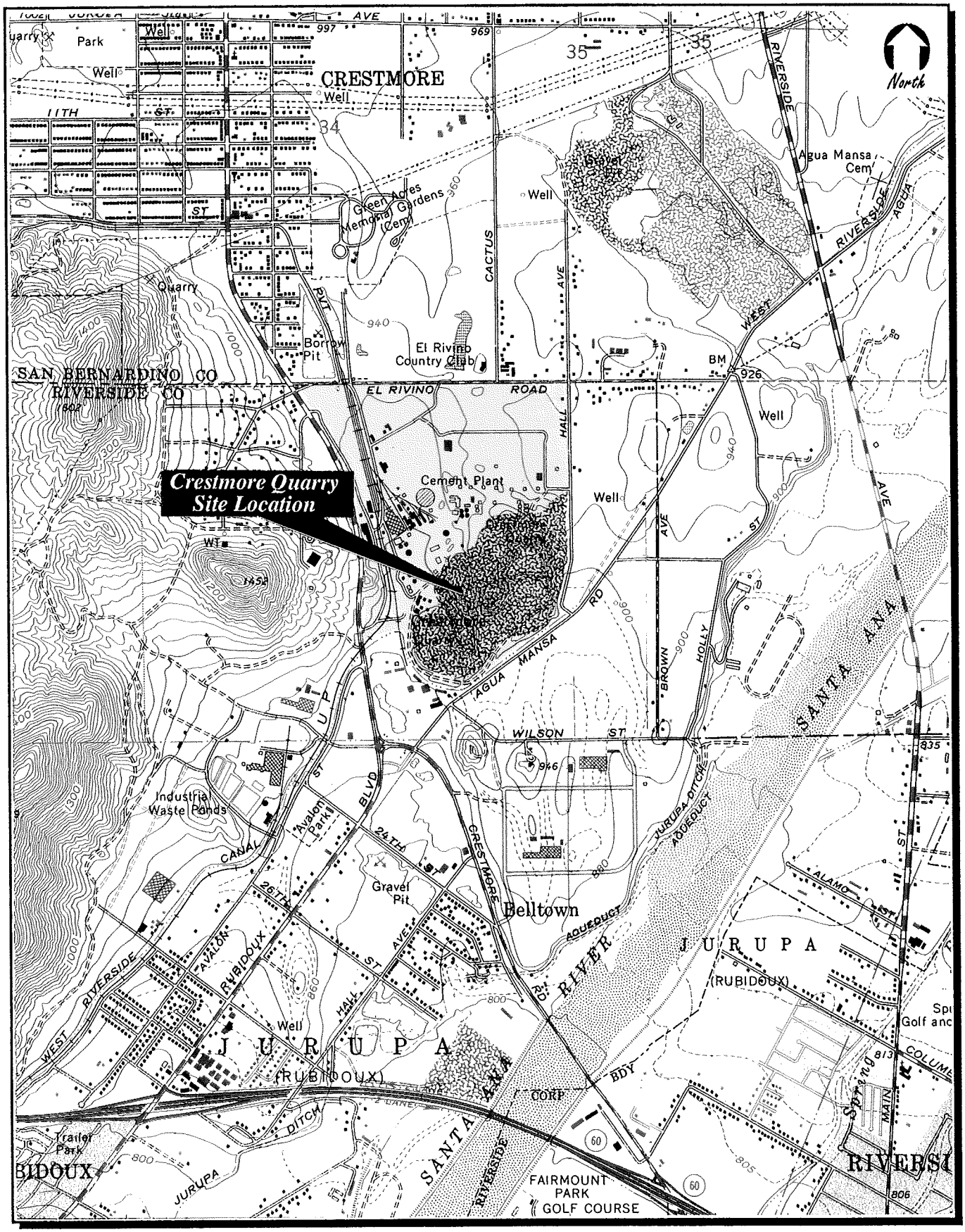
The Crestmore Facility is owned and operated by the Riverside Cement Company. The facility, as indicated in Figure 1-1, is located approximately 2.5 miles south of Interstate 10, and south of the City of Crestmore in Riverside County (Township 2 West, Range 5 West, Sections 2 and 3, San Bernardino Base Line and Meridian).

The facility has produced cement products since 1910 and has had several owners since beginning operations. In past operations, limestone was mined from the site, combined with other materials imported from off-site, and burned in rotary kilns to produce cement clinker. The cement clinker was then crushed to produce cement that was shipped from the site.

During the operation of the kilns, off-specification materials in the form of cement kiln dust (CKD) and raw feed materials were generated and used as feed supplement in the processes. Excess CKD was disposed on-site in the specific areas identified in Figure 1-2. The disposal of the CKD was typically performed by transporting the CKD by truck from the kilns and end-dumping the material within the disposal area. The dust was extremely fine. When water came in contacted with the CKD, the resulting reaction created a cementicious crust that was impervious to further water penetration.

In 1987 the grey cement kilns stopped manufacturing grey cement clinker. Today, grey cement clinker is imported to the site, stored, and then crushed into final cement product. Since there are no grey kilns in operation, no grey CKD is generated at the site.

Today, the site is not mined and only two of the white kilns are in operation to manufacture white cement. These kilns generate white CKD during the clinker manufacturing process. On-site disposal of



Base From USGS
7.5 Minute Topographic Map Series,
Fontana and San Bernadino So.,
California Quadrangles (1980)

G-1169

FIGURE 1-1
SITE LOCATION

ERM-West, Inc. 3'91
1231.10/GCF/02.08.91

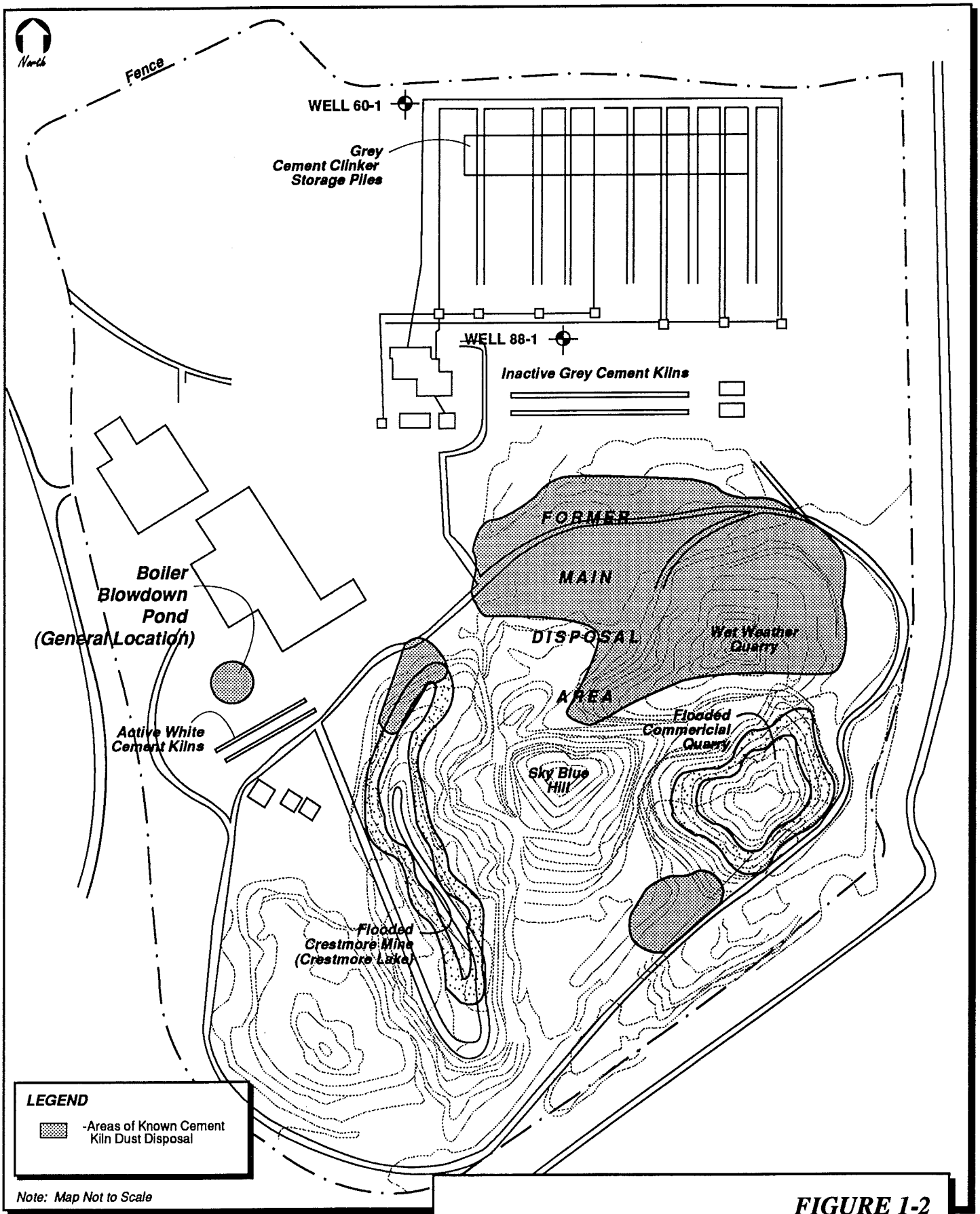


FIGURE 1-2
CLOSURE SITES:
CEMENT KILN DUST DISPOSAL AREAS AND BOILER BLOWDOWN POND

CKD generated by this operation ceased in the summer of 1990. Riverside Cement now uses the white CKD as feed supplement in the white kilns or, when the white kilns are not operational, the CKD is used as part of the feed in the grey or white cement clinker grinding operations. The relative proportions of CKD use in the white kilns and grey clinker storage is 85-90 percent and 10-15 percent, respectively.

1.2 Site Conditions

The Crestmore Quarry is situated on the south side of the San Bernardino Valley at an elevation of approximately 900 feet. The predominate landmark Sky Blue Hill crests at an elevation of approximately 1120 feet. Temperatures vary from 28°F to 110°F. Rainfall ranges from 8-18 inches per year, with most of the precipitation falling between the months of November and April.

There are no streams or springs at the site. Drainage from rain storms sheet flow over the former CKD areas and accumulate in the three former quarry areas (Crestmore, Commercial, and Wet Weather quarries). The Wet Weather Quarry and Crestmore Mine are isolated from the main operation's site by a 1.5 to 2.0 foot high berm constructed on the access road to the Quarry. The berm is designed to minimize water runoff into the Quarry from the operation's area.

The Santa Ana River flows southwest about 3500 feet southeast of the site. The sites lie above and outside of the Santa Ana River floodplain. The Commercial and Crestmore Mine Quarries are flooded with ground water, and water temporarily ponds at the Wet Weather Quarry after heavy rainfall.

1.3 Hydrogeology

Ground water occurs in three distinct hydrologic units at the Crestmore facility: the Chino Limestone, the Wet Weather and Commercial Limestone (upper limestone units) and the Santa Ana River alluvium. Figure 1-3 (adapted from the 1950 report by W.P. Rowe) shows the stratigraphic relationship of these hydrologic units.

The Chino Limestone originally cropped out where the Crestmore Mine is located (Figure 1-2). Since this limestone was of exceptionally high quality, two detailed dewatering feasibility studies were conducted by W.P. Rowe in 1928 and 1950. These studies involved detailed geologic interpretation of the numerous core holes

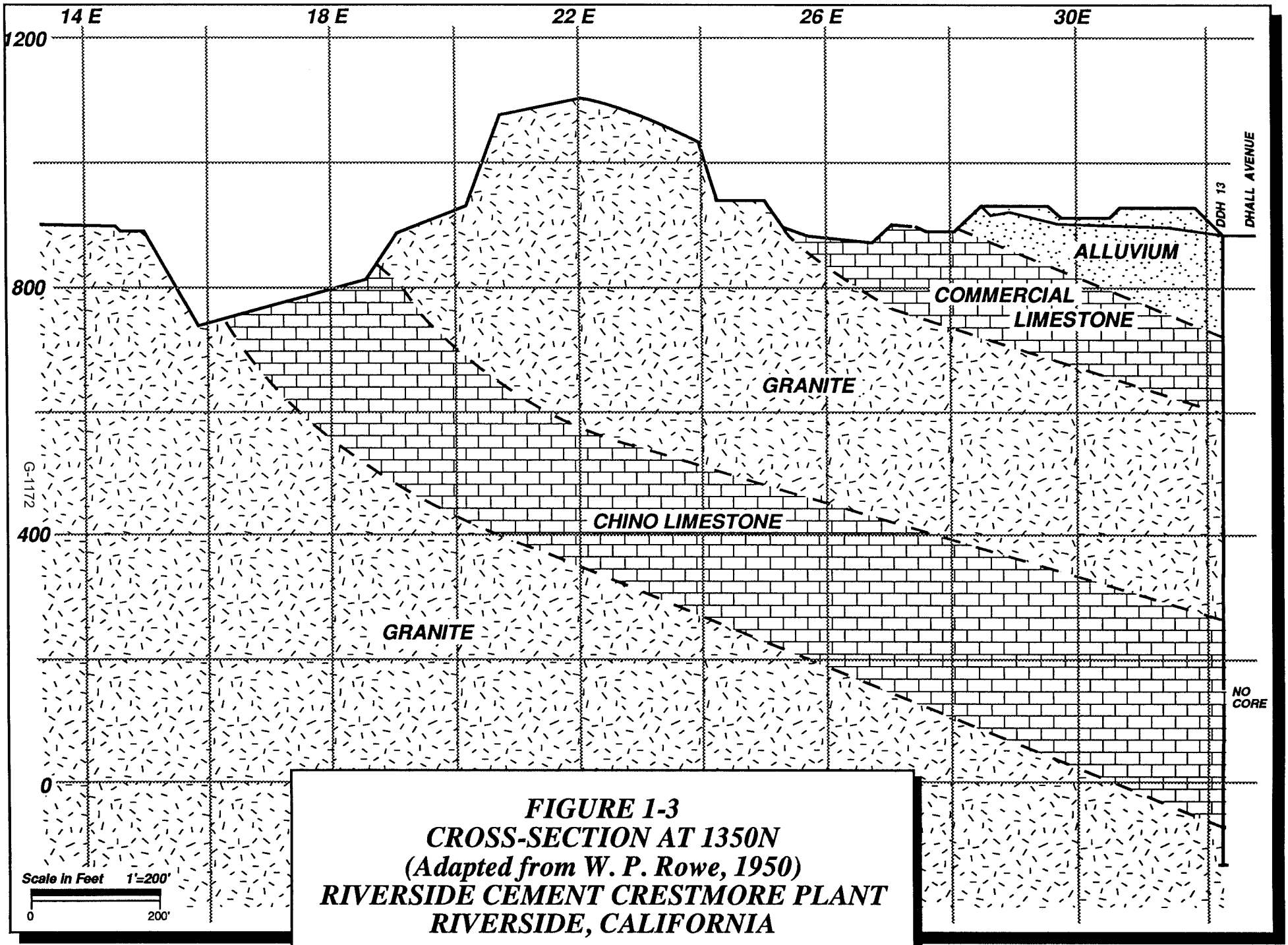


FIGURE 1-3
CROSS-SECTION AT 1350N
(Adapted from W. P. Rowe, 1950)
RIVERSIDE CEMENT CRESTMORE PLANT
RIVERSIDE, CALIFORNIA

ERM-West, Inc. 4/91
1231/DMPV-4.7.91

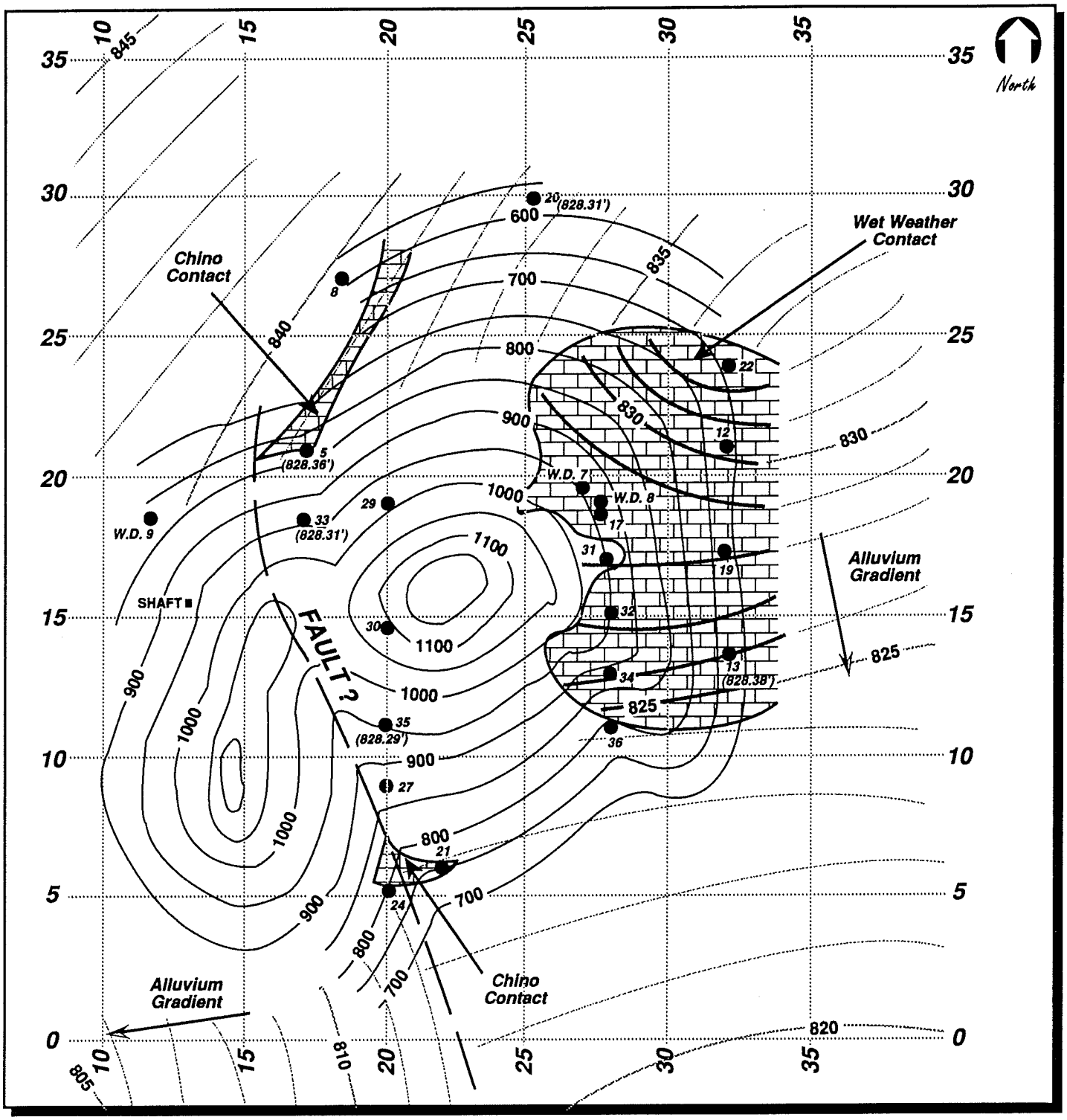
in the area, installation of new wells, pump tests and large scale laboratory models.

W.P. Rowe (1928) demonstrated in his studies that the quartz diorite layers (granite) above and below the Chino Limestone acted as confining layers. Only a small portion of the Chino Limestone comes into contact with alluvial deposits (Figure 1-4) of the Santa Ana River. Figure 1-4 indicates Rowe's 1928 interpretation of ground water levels prior to large volume pumping of ground water. Wells screened in the alluvium and water levels in the Wet Weather and Commercial units demonstrate a pattern of flow consistent with ground water migration in the river alluvium. Wells screened in the Chino Limestone vary in elevation only a few hundredths of a foot over nearly the same area.

The northern portion of Figure 1-4 indicates the alluvial water table approximately 9 feet higher than the Chino water level at Drill Hole 20. Based on this observation, W.P. Rowe determined that the influx of water from the Santa Ana River alluvium was restricted. During the course of dewatering the mine between 1928 and 1950, the influx of water from the northern Chino Limestone contact with the alluvium was minor. Water levels in alluvium wells dropped approximately 10 feet during the initial stages of mine dewatering. Subsequent lowering of the Chino Limestone water table had no further impact on alluvial water levels. By 1950, mining had been successfully accomplished to an elevation of 660 feet above sea level or approximately 165 feet below the water table in the river alluvium.

Based also on W.P. Rowe's 1928 observations of well water temperature measurements (Figure 1-5) and aquifer response to precipitation events, he concluded that the vast majority of the water in the Chino Limestone originated from direct percolation of rainwater at the mine and influx from a deep source somewhere below the Santa Ana River to the east. Using water quality data obtained from several wells and the mine sump combined with water balance calculations, W.R. Rowe (1950) concluded that inflow to the mine from the alluvium was approximately 400 gallons per minute (gpm). Based on sulfate ion concentrations, he concluded that the southern contact of the Chino Limestone to the alluvium provided only 30 gpm of the calculated total alluvium contribution of 400 gpm.

The upper limestone unit (Figure 1-3) has been mined in three separate areas as indicated on Figure 1-5. The Lone Star Limestone was well above the water table and has been mined out. The Wet Weather and Commercial Limestones are part of a continuous limestone unit in cross-section that were partially separated at the original surface outcrops by a lobe of granite. The upper limestone was hydraulically connected to the alluvium east of the outcrop. This fact is apparent when the hydraulic contours are compared between the alluvium and the limestone on Figure 1-4.



Scale in Feet 1'=500'

0 500'

LEGEND

828.36 - Chino Limestone Elevation

- Wet Weather Hydrographic Contour

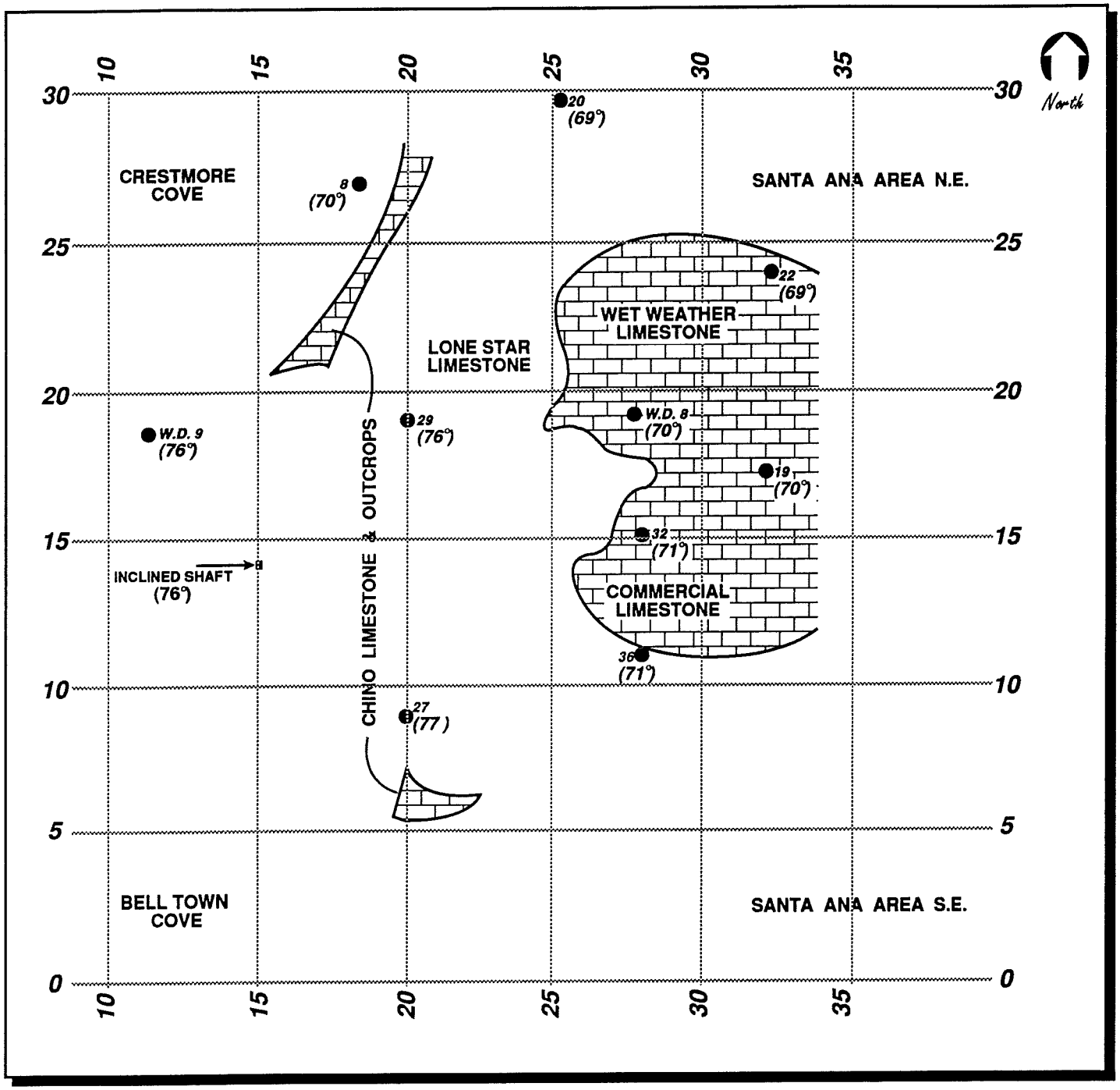
- Surrounding Hydrographic Contour

- Bed Rock Contour

- Chino Contact

- Wet Weather Contact

FIGURE 1-4
GROUND WATER CONTOUR MAP
(Adapted from W. P. Rowe, 1928)
RIVERSIDE CEMENT CRESTMORE PLANT
RIVERSIDE, CALIFORNIA



Scale in Feet 1'=500'

0 500'

LEGEND

● W.D. 9 (76°) - Temperature of Water in Various Wells & Basins (Temperature shown in Degree Fahrenheit)

FIGURE 1-5
GROUND WATER TEMPERATURE MAP
(Adapted from W. P. Rowe, 1928)
RIVERSIDE CEMENT CRESTMORE PLANT
RIVERSIDE, CALIFORNIA

According to W.P. Rowe (1928), the Wet Weather Limestone was honeycombed and fissured. Hydraulic connection to lower portions of this limestone and the alluvium were inferred to be very strong. The Commercial Limestone was more dense and massive, analogous to the structure of the Chino Limestone. Since many of the fractures and fissures were filled with fine-grained alluvium, the hydraulic connection was not 100%, and W.P. Rowe noted a small decrease in gallons pumped per foot of drawdown in the Wet Weather Limestone as drawdown in the pumping well increased. Dewatering efforts at the Wet Weather Quarry allowed mining down to an elevation of approximately 780 feet.

In 1985, a 12-foot diameter drift approximately 200 feet above sea level was cut across from the Chino Limestone in the Crestmore Mine to the upper limestone unit that was mined in the Wet Weather and Commercial Quarries. The drift was installed because mining in the Chino Limestone had reached to approximately 65 feet below sea level, and the cost of mining deeper was not economical.

Unfortunately, the granite above the Wet Weather Limestone and below the alluvium could not support the roof, and the Crestmore Mine began to flood. An attempt was made to seal the drift, but the seal was only partially successful, and the mine was allowed to flood to the present water level in Crestmore Lake. Crestmore Lake is therefore hydraulically connected to the Wet Weather Limestone and from there to the Santa Ana River alluvium to the east through this drift.

Ground water is pumped from production wells and used on-site. Production well 88-1 is located in the Chino Limestone; well 60-1 is located in the alluvium. Ground water in the Chino Limestone migrates toward the production wells. Since the drift was not completely sealed between the upper and lower limestone units, the sources of recharge for the Chino Limestone water consumed on-site include precipitation, the northern Chino Limestone contact with the river alluvium, water from within the Chino Limestone aquifer deeper to the east and the drift to the Wet Weather Limestone at 220 feet above sea level. The southern contact of the Chino Limestone with the river alluvium (Figure 1-4) has probably become a minor influent and discharge point to the river alluvium as water levels in Crestmore Lake and the alluvium vary.

Therefore, the areas where CKD was disposed in the Quarries lie within the capture zone of on-site production wells. Water samples have been collected from the production wells and analyzed for specific water quality compounds (Appendix A). There have not been any reports of water quality degradation.

1.4 Cement Kiln Dust Disposal Areas

Cement Kiln Dust has been disposed on-site in the areas indicated on Figure 1-2. The past disposal areas are located primarily in the eastern portion of the site and to the north of Crestmore Lake and Sky Blue Hill. On the eastern portion of the Wet Weather Quarry and to the east and south of the flooded Commercial Quarry the site is underlain by alluvial soils. Below the CKD areas to the north of Sky Blue Hill and Crestmore Lake, the site is underlain with alternating quartz diorite and limestone (marble) zones. These zones dip downward at an approximate forty-five degree angle towards the east.

In the three specific disposal areas (Figure 1-2, Crestmore Lake, Commercial Quarry, and the Wet Weather Quarry) the CKD has been dumped on the edges of steeply mined areas. The CKD is estimated to be between one foot and to greater than 10 feet thick in these areas; however, the CKD depth will vary considerably because 1) the steep sideslopes of the mined areas do not allow CKD to accumulate in large quantities and, 2) in the case of the Commercial and Wet Weather Quarries, some of the CKD was reclaimed and reused in past operations. Portions of these three areas are covered with native overburden material.

The former main disposal area, north of Sky Blue Hill, varies in depth from two feet to greater than 60 feet. Riverside Cement last used this disposal area in 1990 and has since ceased disposal of CKD on site. To maintain dust control, the normal practice on-site was to periodically cover the CKD active disposal area. Soon after Riverside Cement stopped dumping CKD on-site, the former active disposal site was covered and capped with overburden soils from other on-site activities. The estimated depth of this overburden capping in the main disposal area is from 2 to 3 feet.

1.5 Boiler Blowdown Disposal

The boiler blowdown pond is located just north of the white kilns (Figure 1-2). It was in operation from 1985 to June, 1990. It is approximately 30 feet by 60 feet in area and approximately 4 feet in total depth. It is presently not in use. Riverside Cement has changed the blowdown operation and now uses the boiler blowdown as cooling water in the operating kilns. The pond is located within a containment area for an above ground diesel storage tank. The pond is lined with plastic and covered by clay soil. Rainwater occasionally collects within the pond and evaporates.

SECTION 2

2.0 CLOSURE AND POST-CLOSURE PROCEDURES

The closure and post-closure procedures for the disposal area, contained in this Plan, meet the requirements of Articles 8 and 9 of Subchapter 15 and will be performed under the direct supervision of a registered civil engineer or a certified engineering geologist. In addition, this closure and post-closure maintenance plan provides for waste containment, precipitation, and drainage controls meeting the requirements of Article 4 of Subchapter 15.

Additionally, the Riverside Cement Company is planning to mine the rocks from Sky Blue Hill and Beckett Hill. A Mining and Reclamation Plan (revised February 7, 1991) is currently under review by Riverside Planning Department. The reclamation plan is included in Appendix B. When mining operations begin, the land surface and topography to the north and east of Sky Blue Hill will rise as a result of disposal of off-specification mining materials. Ultimately, the main CKD disposal areas north of Sky Blue Mountain and the Wet Weather Quarry will be covered with 15-20 feet of rock and other material generated by the mining operations.

The closed disposal area will be provided with at least two permanent monuments installed by a licensed land surveyor or a registered civil engineer, from which the location and elevation of the disposal sites can be determined throughout the post-closure maintenance period.

The following closure procedures apply to the three CKD disposal areas and the boiler blowdown pond (Figure 1-2). As the mining operations begin to cover the CKD areas, the post-closure maintenance operations of this plan will be suspended and the reclamation procedures of the Plan will take precedence.

2.1 Cement Kiln Dust Closure Procedures

The three disposal sites shown in Figure 1-2 will be closed by a licensed contractor. The name of the contractor is not known at this time, however, the company selected to performed the work will be provided at a later date.

The final closure procedures for each CKD disposal site will include settlement projections, cover material selection, and post closure maintenance.

2.1.1 Settlement

Since the cement kiln dust waste is very fine and uniform and when mixed with water forms a dense, impermeable mass, settlement within each disposal sites is not expected to occur.

2.1.2 Cover Material

The cover material for each closed disposal site will be native overburden generated from on-site activities. This material has already been used to cover much of the CKD area north of Sky Blue Hill. Overburden soil is the selected cover material since the CKD when in contact with water reacts to form a cementitious crust that is impervious to water penetration. This system of reactive CKD and overburden soil will provide equivalent protection to the systems required by Subchapter 15.

It is not anticipated to regrade or change the drainage pattern of the existing disposal sites except as described in the mining plan. The overburden soils will be end-dumped in the area of the CKD and spread to a compacted depth of a least 12 inches. In the areas where the slope is too great to use equipment (commercial and wet weather quarries, and Crestmore Lake) the cover soils will be end-dumped down the slope and allowed to stabilize at the natural angle of repose or the existing slope of the quarry. When the mining operation begins, most if not all of the slope surfaces at the Wet Weather Quarry will be covered by the mining operations, reducing the tendency for rutting and channeling of the material during rainstorms.

2.1.3 Post Closure Maintenance Activities

Maintenance of closed sites will include inspection and correction of eroded cover material. As CKD disposal areas are closed, inspection will occur regularly as the remaining CKD sites are covered and compacted. After the CKD sites are closed, inspections will be conducted after intense rains or wind storms.

Experience on previously closed disposal sites, indicates that some periodic replacement of cover material will be required until plants and shrubs begin to reclaim the area. It is anticipated that some cover material will be required to replace washouts and eroded

sideslopes. Natural vegetation will be permitted to grow over the cover material.

2.2 Boiler Blowdown Pond Closure

The final closure procedure for the pond will include closure overview, cover material selection, settlement projections, and post closure maintenance.

2.2.1 Closure Overview

Free liquid remaining in the pond at the time of closure will be removed and disposed according to appropriate regulations. If the material is designated as hazardous, the liquid will be disposed using a hazardous waste manifest. For this purpose, Riverside Cement will use their EPA generator number CAD 063844443.

Once the liquid is removed, the soils and plastic liner will be removed by excavation and stockpiled on-site. Soils will be removed from all four interior sides of the existing dikes and the bottom of the pond. Depth of the excavation is assumed to be two feet, however, the ultimate depth of excavation will be based on visual observations for stained soils and the use of field instruments for chemical off-gasing potential.

The stock-piled soils will be sampled and analyzed at a state certified laboratory. Depending on the analytical results, the soil material will be classified as either hazardous (to be disposed off-site using RCRA and/or state regulations) or non-hazardous (to be disposed of on- or off-site). One on-site disposal method would be to incorporate the soils with clay material used in capping the CKD areas.

After excavation is complete, confirmation soil samples will be taken and analyzed for the following compounds: total petroleum hydrocarbons (EPA Method 418.1), total chromium and total lead (EPA Method 6010).

2.2.2 Cover Material

The cover material for the pond will be a locally available clay. This clay material has low permeability (less than 10^{-7} to 10^{-8} cm/sec) and is available in sufficient quantity required for the closure of the pond. It is anticipated that no more than two feet of existing soils will be removed from the pond surfaces (bottom and dike areas); thus the thickness of the clay cover will be no less than two foot and more likely between two to three feet in depth.

2.2.3 Settlement Projections

The soils under the pond are native soils and they have consolidated over time. The cover material will be compacted using rubber tired equipment or other type of rolling equipment. Thus, no settlement is expected after pond closure. Additionally, every effort will be used to leave the outer containment berm in place and as undisturbed as possible.

2.2.4 Post Closure Maintenance Activities

Maintenance of the closed pond will include inspection and correction of eroded cover material. It is anticipated that some cover material will be required to replace washouts and eroded sideslopes from intense rainstorms. Since the area of the pond will continue to be used as an extension of the secondary containment for an above ground diesel fuel tank, the sideslopes and bottom of the containment area will continue to receive necessary inspections.

2.3 Post-Closure Land-Use

The closed CKD disposal sites will be allowed to revegetate naturally. The areas will be allowed to return to a non-irrigated open space native environmental setting until the mining operations begin to fill the CKD disposal sites. At the time of the mining operations, the post-closure land-use requirements will be subservient to the Reclamation Plan (Appendix B).

The boiler blowdown pond area will continue as an extension of the secondary containment basin for the above ground diesel fuel tank.

SECTION 3

3.0 CLOSURE SCHEDULE

It is anticipated that the closure of the CKD areas will require up to 3 months and the pond closure will require two months, both activities will proceed concurrent with one another.

Maintenance of the closed disposal sites will be required until the CKD areas are reclaimed by nature or until the Sky Blue Hill mining and reclamation project begin. Based on observations of the experimental reclamation areas and experience at other similar closed sites, and conservative assumptions, we anticipate a reasonable post closure maintenance period of 5 years. This five year period will allow for either partial revegetation or the Sky Blue Hill mining and reclamation plan will become an on-going operation. The maintenance activities will include inspection after rains and repair of washouts and eroded areas.

Prior to beginning the final closure of the CKD areas and the pond site, the owner will notify the Regional Board of its intent to close. The notification statement to the Regional Board will include a provision that all closure activities conform to the approved closure plan and that the plan is in compliance with applicable regulations.

After completion of closure activities, the Riverside Cement will notify the Regional Board within 30 days. The owner will be required to certify under penalty of perjury that all closure activities were performed in accordance to the Closure Plan, and that the site will be maintained and monitored according to the post-closure maintenance requirements included in this Plan.

SECTION 4

ESTIMATED COSTS

The estimated cost for the complete closure and post-closure maintenance of the disposal sites on a present worth basis, is $470,000. This estimate is detailed in Table 4-1 and divided into capital and operating (maintenance) costs. Closure is assumed to occur in 1991 dollars and it is further assumed that a third party will be completing the final closure.

Capital expenditure to close the site is estimated at $440,000. This figure assumes that the CKD closure sites have a fill area of approximately 15 acres and are covered with one foot of clay imported from Corona Clay. Additionally, it is assumed that he area for guniting the northern area of Crestmore Lake is 25,000 square feet. The predominant costs for pond closure are for disposal of soils as hazardous waste.

Annual operating costs are estimated at $7,500 per year for the post closure period. Post closure operating (maintenance) costs include inspections and labor and materials to repair eroded areas. The assumptions used are stated at the bottom of Table 4-1.

In developing the project costs, it is assumed that the post-closure period for maintaining the disposal sites will not exceed five years. The post-closure maintenance period of five years assumes that sufficient rainstorms will have consolidated the majority of the site and will have identified erosion areas. Further, through the periodic maintenance required of this closure plan, these eroded areas will have been corrected and consolidated to prevent further erosion.

STATE OF CALIFORNIA - CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, *Governor*

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION
2010 IOWA AVENUE, SUITE 100
RIVERSIDE, CA 92507-2409
PHONE: (909) 782-4130
FAX: (909) 781-6288

June 15, 1995

Mr. Dennis Smith
Riverside Cement Company
1500 Rubidoux Boulevard
P. O. Box 832
Riverside, CA 92502

APPROVAL OF CLOSURE REPORT AND CERTIFICATION OF CLOSURE, BOILER BLOWDOWN DISPOSAL POND, LOCATED AT: RIVERSIDE CEMENT COMPANY, 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CALIFORNIA

Dear Mr. Smith:

The closure report for the former boiler blowdown disposal pond at the above-referenced Riverside Cement Company facility is hereby approved. Closure of the former pond is complete.

The former pond area now serves as a lined, secondary containment basin for the aboveground storage tank containing fuel oil for the cement kilns. Our staff will continue to conduct routine inspections of the aboveground tank, its appurtenances, and the secondary containment area.

As a reminder, you are required to submit a revised Spill Prevention Control and Countermeasure Plan (SPCC) for the aboveground storage tank. The location of the dewatering sump should be shown on the map in the SPCC, and you must include a description of the sump clean-out procedures to be implemented in the event of a spill or leak.

Thank you for your cooperation throughout the closure project. If you have any questions or comments regarding this letter, you may contact me at (909) 782-4904.

Sincerely,

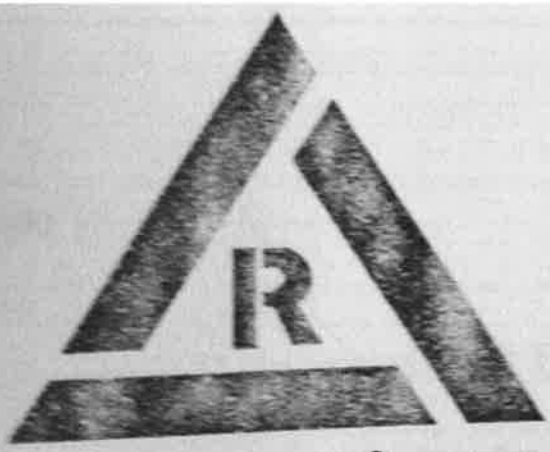
Ann E. Sturdivant

Ann E. Sturdivant
Associate Engineering Geologist

cc: Gene Kulesza/Pat Hill - Riverside Cement Co.
Fred Allison, ERM EnviroClean-West, Inc., Irvine

AES/rivcem2.let

RECEIVED
1995
OFFICE OF REGULATORY MATTERS



Riverside Cement Company

CLOSURE REPORT
BOILER BLOWDOWN POND

Prepared For:

Riverside Cement Company
1500 Rubidoux Boulevard
Riverside, California

Prepared By:

ERM EnviroClean-West, Inc.
1920 Main Street, Suite 600
Irvine, California

MAY 1995

Irvine, CA 92714
(714) 252-7600
(714) 476-3053 (Fax)

May 19, 1995

CERTIFICATION

ERM

The following report contains information generated by formally educated and trained personnel working under my general supervision. Geological, hydrogeological, and engineering procedures and geological observational criteria used in the report preparation are according to protocols either generated or reviewed and approved by me.

Sincerely,

ERM-WEST, INC.



Fred Allison, P.E.

TABLE OF CONTENTS

	Page
LIST OF FIGURES	iii
SECTION 1	
INTRODUCTION	1-1
Site Description and Background	1-1
Pond Closure Tasks	1-2
SECTION 2	
SITE PREPARATION	2-1
Fuel Return Line Suspension	2-1
Berm Cover Removal	2-1
Pond Entry Construction	2-2
Pump Slab Construction	2-2
SECTION 3	
EXCAVATION ACTIVITIES	3-1
Background Sample Analyses	3-1
Excavation Activities in Blowdown Pond	3-1
Excavation Activities in Secondary Containment Area	3-2
Confirmational Sampling Procedures	3-2
Confirmational Sampling Results	3-2
SECTION 4	
CONTAINMENT AREA RESTORATION	4-1
Installation of Cathodic Protection	4-1
Backfilling with Clay	4-1
Installation of Liner	4-2
Surface Finishing	4-2
SECTION 5	
CONCLUSIONS	5-1

TABLE OF CONTENTS

Page

APPENDIX A
PHOTOGRAPHS

APPENDIX B
LABORATORY REPORTS & CHAIN-OF-CUSTODY FORMS

APPENDIX C
CATHODIC PROTECTION SPECIFICATIONS

APPENDIX D
FIELD COMPACTION REPORT

APPENDIX E
LINER SPECIFICATIONS

LIST OF FIGURES

Figure		Following Page
FIGURE 1-1	Site Location Map	1-1
FIGURE 1-2	Boiler Blowdown Pond	1-1

INTRODUCTION

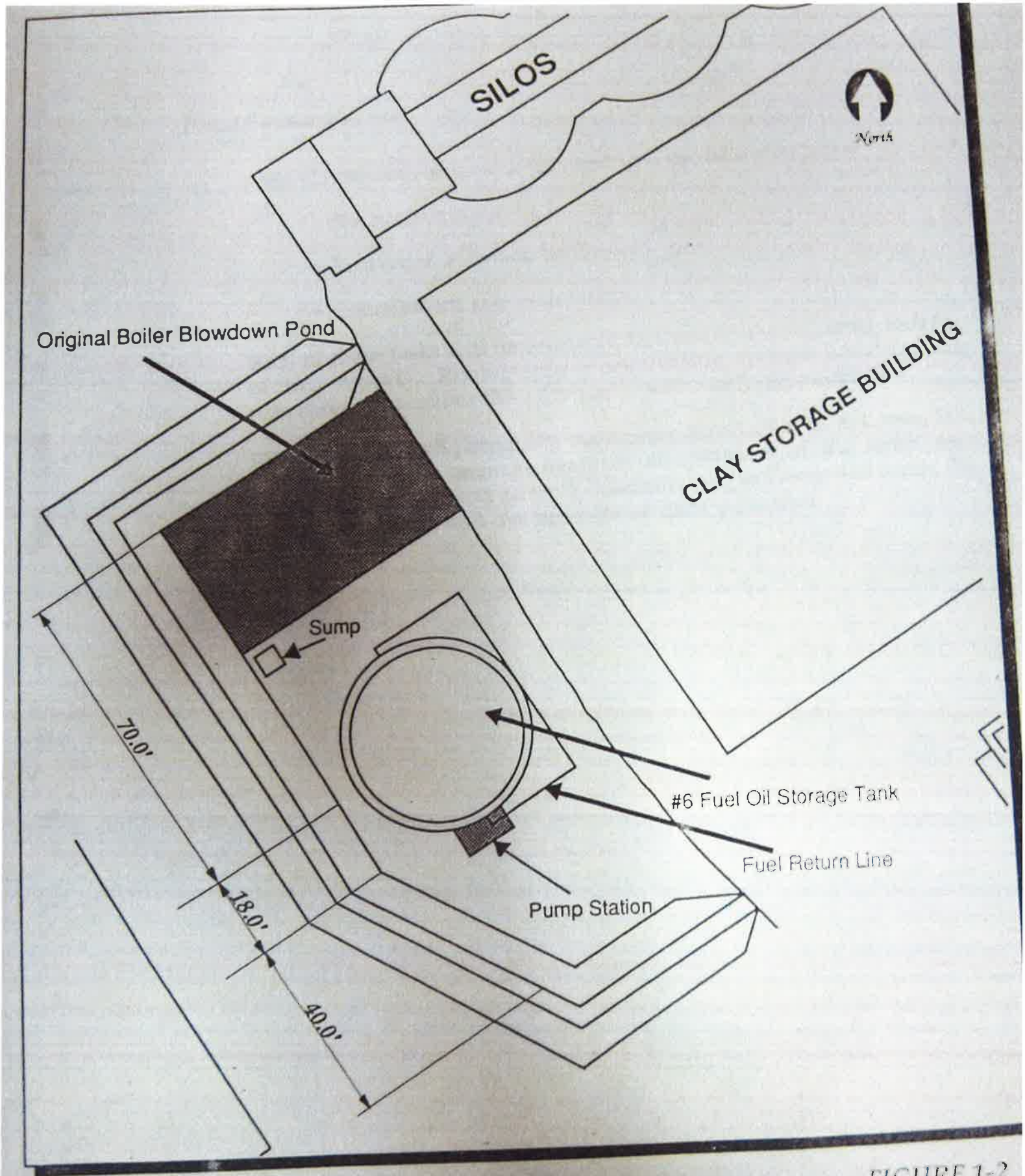
On behalf of Riverside Cement Company (RCC), ERM EnviroClean-West, Inc., (ERM) is pleased to present this closure report documenting remedial activities performed at the Boiler Blowdown Pond (Pond) at RCC. The remedial activities performed by ERM were in accordance with the *Closure Plan Boiler Blowdown Pond* report submitted to the Regional Water Quality Control Board (RWQCB) in January 1994.

Site Description and Background

The RCC facility is located at 1500 Rubidoux Boulevard in Riverside, California (Figure 1-1) and has produced cement products since 1910. In past operations, limestone was mined from the site, combined with other imported materials, and burned in rotary kilns to produce cement clinker. The Pond was used as a surface impoundment to receive the blowdown discharge.

The Pond is located immediately west of the Clay Storage Building (Figure 1-2). The Pond has been in operation from 1985 to 1990 and occupies the northern quarter of a secondary (spill) containment basin. The secondary containment basin is associated with a 210,000-gallon #6 fuel oil aboveground storage tank (AST). The Pond is approximately 30 by 50 feet in area and approximately 4 feet in total depth. Prior to these closure efforts, the Pond was lined with plastic and covered by clayey soil. Rainwater occasionally collected within the Pond and was allowed to evaporate. The surface of the Pond was cementacious in nature due to the deposition and spillage of clinker dust.

RCC has changed the blowdown operation and now uses the boiler blowdown as cooling water in the operating kilns. As a result, blowdown water is no longer discharged to the Pond.



ERM EnviroClean-West, Inc.

Scale 1" = 30'

0' 30'

FIGURE 1-2

Boiler Blowdown Pond
Riverside Cement Company
Riverside County, California

Pond Closure Tasks

Pond closure activities can be divided into the following tasks:

- Site preparation;
- Excavation activities; and
- Containment area restoration.

Each of these tasks will be discussed in detail in the following sections of this report. Photographs documenting closure activities are referenced throughout this report and provided in Appendix A.

ERM subcontracted portions of the closure activities to H. B. Covey, Inc. (Covey). Project management for all portions of the work was performed by ERM and all work subcontracted to Covey was under the direct supervision and management of ERM personnel.

SITE PREPARATION

This section describes the work performed to prepare the Pond and the remainder of the containment area for excavation activities.

Fuel Return Line Suspension

A fuel return line extends from the north side of the AST, along the east side, and terminates at the product pumps on the south side of the AST, as shown in Photo A. This line was supported by concrete footers at a height of approximately one foot above the surface of the Pond.

RCC required that the AST and fuel return line be maintained in operating condition throughout closure activities. In order to maintain the line while removing the footers and the underlying soils, it was necessary for ERM to suspend the fuel line with cables attached to the tank.

ERM accomplished this by attaching wire cables to the catwalk surrounding the top of the tank and looping the wire around the fuel line. This allowed enough clearance to remove the concrete footers and excavate the soils underneath the line.

Berm Cover Removal

The berm surrounding the Pond was covered by both an asphalt-like substance and a buildup of cementacious material due to the deposition and spillage of clinker dust. This covering material was removed from both the interior and exterior portions of the berm.

In several areas, weeds and small plants had grown through the cover of the Pond and berm. ERM removed these plants to prevent their growth from cracking or puncturing the proposed liner.

Pond Entry Construction

A requirement of the closure activities was that the berm forming the walls of the Pond be maintained to allow the Pond to function as a storage area for storm water. ERM constructed an entry through the north berm to allow equipment to enter the Pond. All equipment required to work inside the Pond was directed through this entrance. During closure activities, ERM temporarily closed the berm entrance with fill dirt, during periods of inactivity, to prevent storm water from breaching the Pond.

Pump Slab Construction

A series of transfer pumps are located on the south side of the AST. These pumps are used to transfer the fuel oil from delivery tankers into the AST and to pump the oil from the AST to the rotary kilns.

These pumps sit on a concrete pad with a drip tray under the pumps and associated piping. Prior to closure activities, the pad was not connected to the concrete base of the AST. As part of the closure activities, ERM poured an additional area of concrete to connect the pad to the tank base and enlarged the drip pan to cover the entire area of the slab.

EXCAVATION ACTIVITIES

This section describes confirmational sampling procedures, laboratory results, and excavation of soils in the Pond and secondary containment area.

Background Sample Analyses

At the request of the RWQCB, ERM collected a series of six soil samples from various locations north and south of the excavation area. These samples were analyzed to determine background levels of conductivity for soils not impacted by the boiler blowdown.

Two samples were collected from separate locations north of the excavation area and one sample was collected northeast of the excavation and north of the silos. The remaining three samples were collected south, southwest, and southeast of the excavation area, respectively. Results of these conductivity samples show an average background conductivity level of 173 umhos/cm. Laboratory results and Chain-of-Custody Forms for these samples are included in Appendix B.

Excavation Activities in Blowdown Pond

ERM collected four soil samples from the Pond area prior to excavation. Analysis of these samples revealed an average conductivity level of 5,350 umhos/cm and minor impact from petroleum hydrocarbons and chrome. These results were provided to the RWQCB who expressed concern over the levels of conductivity. The RWQCB required RCC to remove soils with high levels of conductivity.

ERM excavated the soils (Photo B) and transferred the soils to a prepared stockpile (Photo C). After excavating all visibly stained soils, ERM performed confirmational sampling to determine the remediation status. Additional excavation and sampling events were continued until confirmational samples yielded results acceptable to the RWQCB.

Excavation Activities in Secondary Containment Area

Soils outside the Pond area were not impacted by chemicals of concern because of a small interior berm that separated the Pond from the remainder of the containment area. Within the containment area, south of the Pond, the top six to twelve inches of clean soils were excavated and stockpiled on site. Excavation around the fuel return line and pump station was performed by hand; while the remaining area around the tank was excavated by mechanical means.

An extremely hard layer of concrete-like material was found underneath some areas. This layer is evident in Photo D. This material proved to be extremely difficult to excavate and, in some areas, required the use of jack hammers to break. After consultation with RCC and the RWQCB, it was decided that this material would not be removed since it would form a natural barrier to possible migration of contaminants, if a future leak were to occur.

A small sump existed approximately midway along the west berm. This sump was removed by ERM and reinstalled by RCC to serve as a collection sump for pumping of accumulated water. The reinstalled sump is approximately 3 by 3 feet wide and 3 feet deep, constructed of concrete, and covered with a steel grate. Photo E shows the sump under construction.

Confirmational Sampling Procedures

ERM collected confirmational samples by filling a clean laboratory jar with soil scooped from designated areas of the excavation. As specified in the *Closure Plan Boiler Blowdown Pond* report, samples were collected from 2 locations in the Pond floor and one each from the east and west berms. Each jar was sealed immediately with a screw top equipped with a Teflon® or similar nonreactive substance that provides an air-tight seal. Each jar was labeled with an unique sample number, sample location, time, date, and sampler's name. The samples were entered on a Chain-of-Custody Form and delivered to a California state-certified laboratory for analysis.

Confirmational Sampling Results

Initial samples were analyzed for total petroleum hydrocarbons, total chrome, hexavalent chrome, and conductivity. As the excavation

progressed, samples were analyzed only for conductivity, since this was the major concern expressed by the RWQCB. ERM continued to excavate and collect samples until reaching a level of conductivity in the soil that was acceptable to the RWQCB. The average conductivity results of the final samples, was 667.5 umhos/cm. Copies of these laboratory reports and Chain-of-Custody Forms are also provided in Appendix B.

CONTAINMENT AREA RESTORATION

The RWQCB reviewed the confirmational soil sampling results and granted verbal approval for the backfilling and restoration operations to begin. This section describes the containment area restoration activities.

Installation of Cathodic Protection

ERM installed a cathodic protection system for the AST prior to backfilling operations. This system is intended to serve as an additional level of protection to the integrity of the tank.

The system consists of a series of 5 sacrificial anodes installed in borings around the base of the tank. The prepackaged-magnesium anodes were lowered into the borings with the copper connecting wire extending out of the hole. Once the anodes were in place, the holes were backfilled with native soil and tamped to normal compaction. The lead wires were then Cadwelded to the tank as specified in the manufacturers instructions. A copy of the cathodic protection specifications is provided in Appendix C. Photo F shows one of the anodes placed in a boring.

Backfilling with Clay

ERM used locally-available clay as the new liner material for the berms and flooring of the secondary containment basin. This material has low permeability (less than 10^{-7} to 10^{-8} cm/sec) and was available from RCC in quantities sufficient for rebuilding of the AST containment basin.

The thickness of the final clay cover varied from 3 to 12 inches. The original closure plan called for a uniform thickness of 12 inches throughout the Pond. As mentioned earlier, there were portions of the Pond which had an underlying cement-like material. In order to maintain drainage gradients toward the sump, it was not possible to maintain a uniform 12-inch thickness of clay. This was reviewed with the RWQCB representative and verbal approval was granted.

Following placement of the clay liner, compaction testing was performed. The nuclear gauge method (Photos G and H) was used to evaluate the compaction of the clay in two locations (one north and one south of the AST). The results of these compaction tests showed an average compaction value of 98% and near ideal moisture content. Copies of the field compaction reports are provided in Appendix D.

Installation of Liner

Following placement and compaction of the clay, ERM installed an oil and gas resistant membrane liner over the floor and berms of the containment basin. The liner is a 45-mil thick, reinforced liner, manufactured by Watersaver Company, Inc. (Watersaver). A copy of the manufacturer's specifications for this liner is included in Appendix E.

The liner was installed according to the manufacturer's instructions, with a representative of Watersaver supervising the installation. The liner was battened to the tank, sump, and concrete pump station slab. (Photos I, J, and K)

Several I-beams formed supports for pipes running from the pump station to areas outside the Pond. To batten the liner to these beams, it was necessary to install a plastic collar around the base of the beam (Photos L and M). The liner was then battened to the collar and the collar filled with gunite.

All seams were chemically welded according to the manufacturer's instructions (Photo N). Welds were tested using an air lance to direct high pressure air at the welded seams as shown in Photo O. There were no reported seam failures during the testing, indicating that the welding process was successful.

Surface Finishing

The Pond area was finished by applying layers of both sand and gunite over the liner. Four inches of sand, supplied by RCC, was placed on top of the liner. The sand was then moistened for compaction, and to provide optimum moisture levels for the application of gunite. Following placement of the sand, a two-inch thick layer of gunite was applied to the berms and flooring of the Pond (Photos P, Q, R, and S). In addition, a continuous support pillar of gunite was formed under

SECTION 5

CONCLUSIONS

ERM performed the remedial activities in accordance with the *Closure Plan Boiler Blowdown Pond* report submitted to the RWQCB in January 1994.

Since RCC has changed the blowdown operation and now uses the boiler blowdown as cooling water in the operating kilns, blowdown water is no longer discharged to the Pond. The Pond continues to serve as a secondary containment basin for the AST containing fuel oil for the kilns.

The remedial tasks outlined in this report have served the dual purpose of removing impacted soils from the former Pond and providing a containment area properly designed to serve as a secondary containment for the AST. The installation of both a clay and an oil and gas resistant liner provide an adequate level of protection, if a leak occurs in the AST.

Based on the above, ERM recommends that the RWQCB grant approval of the Pond Closure activities to RCC.

1920 Main Street
Suite 600
Irvine, CA 92714
(714) 476-3040
(714) 476-3053 (Fax)

December 4, 1996

Mr. Dennis Smith
Riverside Cement Company
Crestmore Plant
1500 Rubidoux Boulevard
Riverside, CA 92509

SUBJECT: Annual Ground Water Monitoring Report

ERM

Dear Mr. Smith:

On October 28, 1996, ERM-West, Inc., (ERM) conducted an annual ground water monitoring event at the Riverside Cement Company (RCC) facility in Riverside, California (site). During this monitoring event, ERM collected water level measurements and ground water samples from two ground water monitoring wells (MW-1 and MW-3) at the site. After collection, the ground water samples were analyzed by a qualified laboratory. This report briefly describes these activities and presents the results of chemical analysis of the ground water samples.

WATER LEVEL MEASUREMENT

ERM collected undisturbed water level measurements from wells MW-1 and MW-3 with a water level indicator accurate to 0.01 feet. The water levels in wells MW-1 and MW-3 measured 110.80 feet below the top of casing (btc) and 76.43 feet btc, respectively. These water levels were 1.02 feet (MW-3) to 4.75 feet (MW-1) lower than in October 1995, when these wells were last measured. Historical depth-to-ground water measurements in these wells are listed in Table 1.

TABLE 1
HISTORICAL WATER LEVEL MEASUREMENTS

DATE	MONITORING WELL MW-1 (feet btc)	MONITORING WELL MW-3 (feet btc)
June 11, 1991	107.03	74.80
April 6, 1994	105.34	74.61
October 18, 1995	106.05	75.41
October 28, 1996	110.80	76.43

WELL PURGING

After collecting water level measurements, ERM purged each well. The purpose of well purging was to enable the wells to produce a sample of ground water that was as representative of actual aquifer conditions as possible. Purging was accomplished using a Grundfos Rediflo2 submersible pump to remove ground water from the wells. ERM purged 28 gallons (MW-3) to 40 gallons (MW-1) from these wells, which represented approximately three to five casing volumes of water.

Measurements of the temperature, conductivity, turbidity, and pH of the ground water were recorded on Groundwater Monitoring Data Forms during the purging of each well. The turbidity of purged ground water was reduced to approximately 10 nephelometric turbidity units (NTUs) or less by the completion of purging. Completed copies of these forms are included as Attachment A.

GROUND WATER SAMPLING

Ground water sampling from each well took place immediately after well purging. Ground water samples were obtained from just below the air-water interface with disposable polyethylene bailers suspended by dedicated polypropylene ropes. The ground water samples were immediately transferred to appropriate sample containers. For each well, the ground water samples were contained in eight appropriate-sized plastic or glass bottles.

A label was affixed to each sample container to identity the job number, sampler, date and time of sample collection, analyses requested, and a sample number unique to that sample. Following labeling, the samples were refrigerated at the site in an iced cooler. Chain-of-Custody Forms were completed at the time of sampling and accompanied the samples to the laboratory.

QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

The following QA/QC procedures were used during the collection of ground water samples in October 1996 to ensure that the resulting data were representative of actual field conditions:

- The submersible pump and connecting hose that were used to purge the monitoring wells were flushed with an Alconox solution and rinse water prior to purging these wells to prevent cross-contamination;

- Ground water samples were collected with disposable polyethylene bailers and polypropylene rope that were dedicated to each specific well; and
- Vinyl gloves were used during the measurement, purging, and sampling of ground water.

ANALYTICAL METHODS

Ground water samples collected during the October 1996 sampling event were submitted to Del Mar Analytical (Del Mar), a California-certified analytical laboratory. Del Mar analyzed the samples for:

- Aluminum, arsenic, barium, cadmium, calcium, copper, iron, magnesium, manganese, selenium, silver, sodium, and zinc by EPA Method 6010;
- Total chromium by EPA Method 7191;
- Hexavalent chromium by EPA Method 7196;
- Lead by EPA Method 7421;
- Alkalinity by EPA Method 310.2;
- Chloride, nitrate (as NO_3), and sulfate by EPA Method 300 Series;
- Color by EPA Method 110.2;
- Conductivity by EPA Method 120.1;
- Fluoride by EPA Method 340.2;
- Odor by SM 207;
- pH by EPA Method 150.1;
- Surfactants by EPA Method 425.1;
- Total dissolved solids by EPA Method 160.1; and
- Turbidity by EPA Method 180.1.

RESULTS

The results of chemical analyses of the ground water samples collected at the RCC facility in October 1996 are listed in Table 2 (for metals) and Table 3 (for general chemistry). These tables also include the results of chemical analyses for these tested parameters generated during three previous ground water sampling events which were conducted in June 1991, April 1994, and October 1995. Copies of the original laboratory reports and Chain-of-Custody Forms for the October 1996 analyses are included as Attachment B.

If you have any questions concerning the results of the October 1996 ground water sampling event, please contact the undersigned at (714) 476-3040.

Sincerely,

ERM-WEST, INC.

Bruce A. Neuschaefer, R.G.
Project Manager

BAN/dap/1231.30

Attachments - Noted



Table 2
Metals in Ground Water
Riverside Cement Company
Riverside, California

Monitoring Well Number	Sampling Date	EPA Method 6010 Aluminum (Al) µg/l (ppb)	EPA Methods 6010 or 7060 Arsenic (As) µg/l (ppb)	EPA Method 6010 Barium (Ba) µg/l (ppb)	EPA Method 6010 Cadmium (Cd) µg/l (ppb)	EPA Method 6010 Calcium (Ca) µg/l (ppb)	EPA Methods 6010 or 7191 Total Chromium (Cr) µg/l (ppb)	EPA Method 7196 Hexavalent Chromium (Cr-VI) µg/l (ppb)	EPA Method 6010 Copper (Cu) µg/l (ppb)	EPA Method 6010 Iron (Fe) µg/l (ppb)	EPA Methods 6010 or 7421 Lead (Pb) µg/l (ppb)	EPA Method 6010 Magnesium (Mg) µg/l (ppb)	EPA Method 6010 Manganese (Mn) µg/l (ppb)	EPA Methods 6010 or 7740 Selenium (Se) µg/l (ppb)	EPA Method 6010 Silver (Ag) µg/l (ppb)	EPA Method 6010 Sodium (Na) µg/l (ppb)	EPA Method 6010 Zinc (Zn) µg/l (ppb)
G-1205 MW-1	28-Oct-96	120	<10	65	<5	92,000	6.1	<25	<50	33	<5	12,000	<20	<10	<50	49,000	<50
	18-Oct-95	<500	<10	<50	<5	68,000	5.6	<25	<50	<50	<5	8,600	<20	<10	<50	44,000	<50
	6-Apr-94	<200	<10	68	<5	120,000	<10	<10	14	<100	<3	15,000	<15	<5	<10	63,000	24
	11-Jun-91	<100	<10	62	<5	110,000	<10	-	<10	<100	4.3	14,000	84	<5	<10	44,000	29
MW-3	28-Oct-96	57	<10	130	<5	130,000	21	<25	<50	<20	<5	18,000	<20	10	<50	77,000	<50
	18-Oct-95	<500	<10	87	<5	110,000	12	<25	<50	<50	<5	15,000	<20	<10	<50	81,000	<50
	6-Apr-94	<200	<10	100	<5	120,000	20	17	17	<100	<3	18,000	<15	<5	<10	71,000	26
	11-Jun-91	<100	<10	110	<5	120,000	<10	-	<10	<100	<3	19,000	140	<5	<10	77,000	<10
	*Drinking Water MCL**	1,000	50	1,000	5	none	50	none	1,000†	300†	50	none	50†	50	50	none	5,000†

* = Based on the more stringent of either USEPA and State of California guidelines

† = Secondary Drinking Water Standard

- = not analyzed

Table 3
General Chemicals in Ground Water
Riverside Cement Company
Riverside, California

Monitoring Well Number	Sampling Date	EPA Methods 310.1 or 310.2	EPA Method 300 Series	EPA Method 110.2	EPA Method 300 Series or 340.2	EPA Method 300 Series	SM 207*	EPA Method 150.1	EPA Method 120.1	EPA Method 300 Series	EPA Method 425.1	EPA Methods 160.1 or 160.2	EPA Method 180.1
		Alkalinity	Chloride	Color	Fluoride	Nitrate (as NO3)	Odor	pH	Specific Conductance	Sulfate	MBAS (Surfactants)	Total Dissolved Solids	Turbidity
		mg/l (ppm)	mg/l (ppm)	Color Units	mg/l (ppm)	mg/l (ppm)	threshold odor number	pH Units	µmhos/cm	mg/l (ppm)	mg/l (ppm)	mg/l (ppm)	NTUs
MW-1	28-Oct-96	170	64	<1.0	0.32	35	<1.0	7.2	720	57	<0.1	440	15
	18-Oct-95	150	79	50	0.17	45	<1.0	7.7	610	63	1.2	390	42
	6-Apr-94	280	110	80	0.27	11	2	7.6	970	70	0.3	610	1,100
	11-Jun-91	200	99	10	0.34	NA	4	7.9	1,000	53	<0.1	670	22
MW-3	28-Oct-96	220	92	<1.0	0.32	58	<1.0	7.2	1,100	200	<0.1	740	7.2
	18-Oct-95	250	64	400	0.35	26	<1.0	7.4	1,000	140	1.1	670	150
	6-Apr-94	280	74	40	0.31	9.8	4	7.5	1,000	150	<0.2	620	1,300
	11-Jun-91	310	96	10	0.25	NA	2	7.4	1,300	140	<0.1	780	50
	Drinking Water MCL	none	250††	15†	1.4 to 2.4**	45	3†	<6.5 or >8.5†	900††	250††	0.5†	500††	5†

* = EPA Method 140.1 used in October 1995

** = Depending upon temperature

† = Secondary drinking water standard

†† = Recommended secondary drinking water standard

NA = reliable data not available

G-1206

SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN

FOR

RIVERSIDE CEMENT COMPANY
1500 Rubidoux Blvd
Riverside, California 92509

SEPTEMBER, 1994

Prepared by:

MILLER ENGINEERING
170-F Alamo Plaza, Suite 309
Alamo, CA 94507
(510) 831-3255

TABLE OF CONTENTS

Section	Description	Page
	TABLE OF CONTENTS	i
1	GENERAL INFORMATION AND CERTIFICATION	1-1
2	SPILL RECORD	2-1
3	FACILITY ANALYSIS	3-1
4	PREDICTION AND PREVENTION OF POTENTIAL SPILLS	4-1
5	SPILL CLEANUP PROCEDURES AND EQUIPMENT	5-1
6	PERSONNEL TRAINING AND SPILL PREVENTION	6-1
7	SPILL PREVENTION PLAN CHECKLIST	7-1

APPENDICES

A 40 CFR Part 112: Oil Pollution Prevention - (Regulations for Preparation of SPCC Plans)

B Monthly Inventory Reconciliation Form

SECTION 1

GENERAL INFORMATION AND CERTIFICATION

The purpose of a Spill Prevention Control and Countermeasure (SPCC) Plan is to adopt procedures that will 1) reduce the likelihood of an oil spill event, and 2) prevent oil from entering the municipal water system in the event of such a spill. This plan is required by Federal EPA legislation since Riverside Cement currently maintains in excess of 1,320 gallons of above ground oil storage capacity. (See Appendix A - 40 CFR Part 112 (Oil Prevention), Environmental Protection Agency).

In the State of California, a release of waste oils is also considered a discharge of hazardous waste, covered under separate legislation. This plan does not address the requirement under such State legislation, since hazardous waste handling, storage, and disposal is covered by other plans prepared for the facility.

FACILITY INFORMATION AND RESPONSIBLE PARTIES

A. Facility
- Name: Riverside Cement Company
- Address: 1500 Rubidoux Blvd
- City: Riverside, California 92509
- Type: Cement Manufacturing Facility

B. Operator
- Name: Riverside Cement Company
- Address: 660 North Diamond Bar Blvd.
- City: Diamond Bar, CA 91765
- Telephone: (909) 861 - 2174

C. Person in charge of facility
- Name: Pat Hill
- Title: Plant Manager
- Telephone: (909) 683-3660

D. Person responsible for oil spill prevention (Emergency Coordinator)
- Name: Rick Neumann
- Title: Maintenance Manager
- Telephone: (909) 683-3660

E. Management Approval
The SPCC Plan for the above facility will be implemented as described:

Signature Patrick M. Hill

Name: Pat Hill
Title: Plant Manager
Company: Riverside Cement Company

F. Review
This SPCC Plan has been reviewed by the Operator:

Signature C Russ Damann

Date Sept. 16, 1994
(Updating and recertification required in 3 years)

G. Operations
Facilities began operation in 1910.

H. Certification
This SPCC Plan has been reviewed by the undersigned Registered Professional Engineer and certified here with:

I, Dennis Miller, being a Registered Professional Engineer having examined this facility and being familiar with the provisions of 40 CFR Part 112, attest that this SPCC Plan has been prepared in accordance with good engineering practices. (112.3D)



Signature of Registered Engineer
Registration No.: 28108
State: CA
Date: 9/14/94

SECTION 2

SPILL RECORD

No recorded spill events have occurred at the facility.

Reporting Future Spills

Spill reporting depends on the quantity and concentration of product spilled. Examples of spills that may not be reportable are:

1. A spill of oil or gasoline on concrete or asphalt paving that is small in volume and totally contained may not be a reportable spill event.

2. Residual oil or gasoline that flows onto the ground and is absorbed by vermiculite or absorbent mats may not be a reportable spill event.

A reportable spill is defined as any discharge of oil products that:

1. Violate applicable water quality standards, or which may directly or indirectly, by means of surface or subsurface routes, enter any drain ditch, storm drain, lake, stream, river, or ocean.

2. Causes a film or sheen upon or discoloration of the surface waters or adjoining shoreline, or causes a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

If a reportable spill occurs, the emergency and cleanup procedures described in this Plan will need to be initiated as well as notification of the appropriate regulatory agencies. Additionally, the provisions of section 112.4 (Amendment of SPCC Plans by Regional Administration - Appendix A) of the regulations may need to be enacted with the preparation of a report encompassing the requirements of section 112.4.

For additional information on spill reporting and follow-up, see Section 5.

SECTION 3

FACILITY ANALYSIS

The Crestmore facility is located approximately 2.5 miles south of Interstate 10, and south of the City of Crestmore in Riverside County. The Santa Ana River flows southwest about 3500 feet southeast of the site. The site lies above and outside of the Santa Ana River floodplain. Rainfall ranges from 8-18 inches per year, with most of the precipitation falling between the months of November and April.

Groundwater flow in the area is complex because of past mining activities. Groundwater is detected between 70 and 100 feet below ground. Several wells have been installed on site for water production and monitoring purposes. No oil products have been reported in the wells.

Facility operations include production of cement products, material storage, office administration, and garage servicing of support vehicles used at the facility. Figure 3-1 indicates the tank location and the local surface drainage patterns.

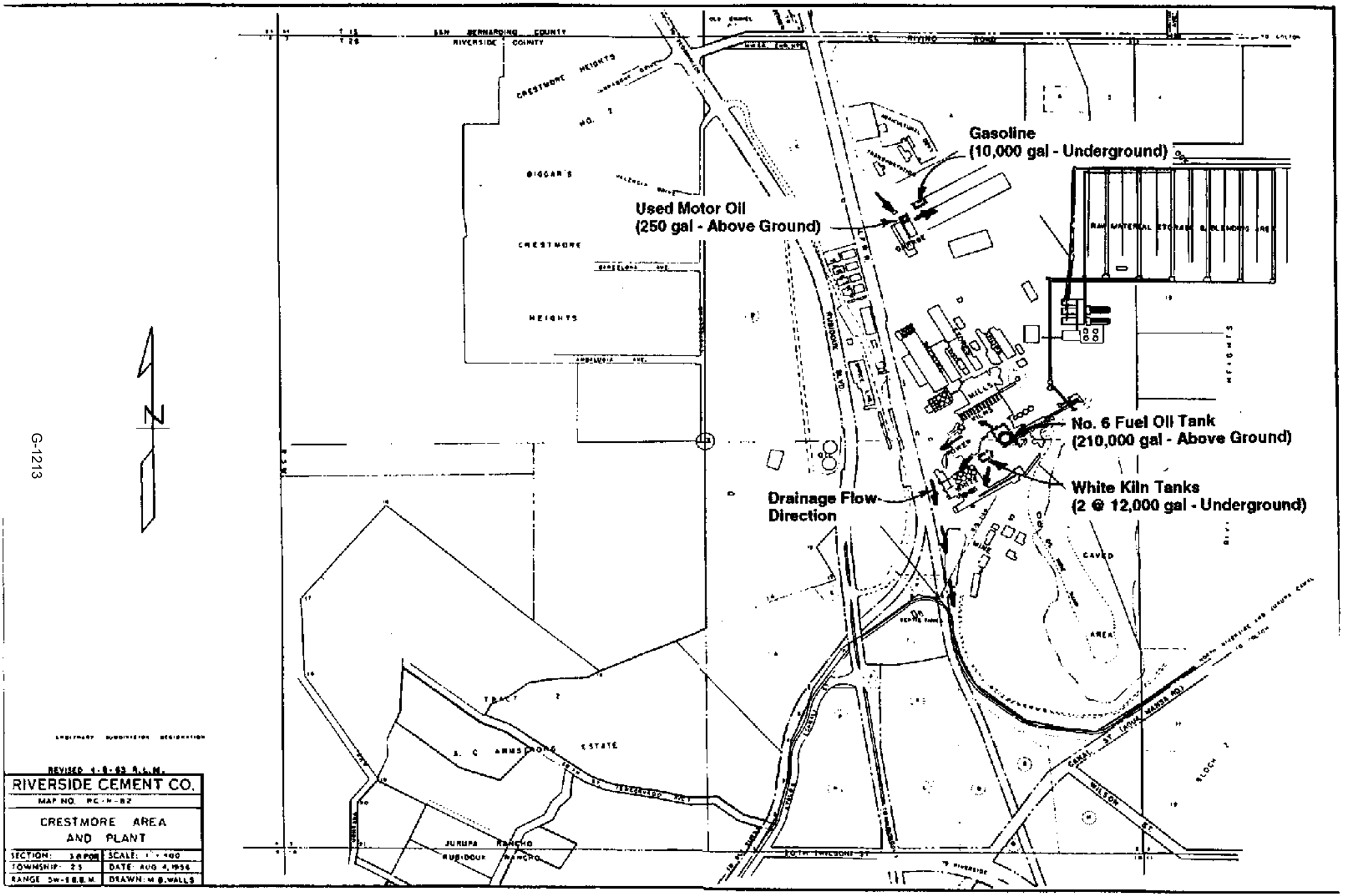
This section describes the fuel storage and usage, as well as the surface drainage patterns and collection systems associated with each fuel storage area.

OIL STORAGE

Oil storage activities occur in two areas of the facility in above ground and below ground tanks: white kilns and the garage area. Specifics on oil storage usage and monitoring are provided in Table 3-1.

White Kilns

Within the White Kilns area there are two 12,000 gallon underground tanks and one 210,000 gallon above ground tank. The underground tanks contain diesel #2 for fueling maintenance vehicles and as supplementary fuel to the white kilns. Separate dispenser pumps for fueling vehicles and the white kilns are located about 50 feet south of the underground tank site. Bulk deliveries are brought onto the facility by truck and off-loaded into the underground fuel tanks.



G-1213

Figure 3-1
Tank Locations and Drainage Patterns

TABLE 3-1

TANK SUMMARY
RIVERSIDE CEMENT

Tank No.	Location	Tank Storage Capacity, gals		Product	Construction Material	Secondary Containment/ Monitored
		Above Ground, Gals	Below Ground, Gals			
	While Kilns (Clay Bldg)	210,000		Fuel Oil #6	Steel, Sngl Wall	Contained
	Garage Area-North	250		Used Motor Oil	Steel, Sngl Wall	No Containment
	Garage Area-East		10,000	Unleaded Gas	Steel, Sngl Wall	Monitored
	White Kilns-2 @ 12,000		24,000	Diesel #2	Steel, Sngl Wall	Monitored
	TOTALS	210,250	24,000			

The underground tanks are single-walled steel and monitored by daily sticking and inventory reconciliation. Although a Vadose Zone Monitoring System with well and hydrocarbon sensors has been installed by Riverside Cement Company, the County, at this time, does not allow this type of continuous monitoring. The daily tank stick readings and reconciliation are summarized in a yearly report that is forwarded to the County in accordance with the underground tank permit. Appendix B contains a typical reconciliation form approved for use by Riverside County, Department of Environmental Health.

The 210,000 gallon above ground No. 6 fuel oil tank is an AWWA D103-80 bolted steel tank with a diameter and height of approximately 38 feet 9 inches and 24 feet 2 inches, respectively. The tank is installed on an oiled sand base and supported and bolted to a concrete ring wall. The tank is coated with Thermo-thane-7000. The tank is filled by truck. Depending on fuel demand and cement production, two to three 8,000 gallon capacity trucks per day can be expected to off-load fuel to the storage tank. Maximum fuel usage is 16,500 gal/day.

Oil within the tank is heated by circulating steam through internal steam coils within the tank. Kiln supply pumps are located south of the tank in a contained area and supply oil to the kiln through two pumping systems. A low pressure pumping system operates at 60 psig and supplies fuel to a boiler and the high pressure kiln feed pumps. The low pressure supply pipe is steel and routed primarily above ground. A 75 to 100 feet section of piping is buried between the tank and the kilns. The kiln fuel pumps operate a 600 psig. The piping on the high pressure fuel system is above ground. All above ground piping is inspected daily. Oil is pumped by withdrawing fuel from the bottom of the tank. Water within the tank is not normally check since it is assumed that the bottom withdrawal system will remove condensate from within the tank. Oil level within the tank is visually monitored by tank gauge that is checked three times each 24 hours.

The above ground No. 6 fuel oil tank is located within an earthen secondary containment area with a plastic liner underneath. The containment area is constructed of a clay soil mixture compacted to 90 percent. Surfaces of the berm are covered with a 3 inch layer of crushed rock (3/8 to 1 1/2 inch size), overlayed by a gunite surface. The containment volume can hold

approximately 240,000 gallons. Drawing 1600M-56, dated December 28, 1984, depicts the secondary containment berm design.

Garage Area

The garage area uses two tanks: one 250 gallon above ground used motor oil tank and one 10,000 gallon below ground gasoline tank. The 250 gallon above ground used oil tank is steel, located outdoors, and stores 30 weight used oil generated from truck oil changes. It is located north of the garage and within a 350 gallon polyethylene containment tank.

The 10,000 gallon underground tank at the service garage is located on the east side of the garage. The immediate area of the tank and dispenser island is located in a dirt area. The dispenser pumps are located adjacent to the gas tank. The tank is replenished with gasoline through bulk tanker truck deliveries. The area surrounding the tank is not paved or covered by a concrete pad. The tank is single-walled steel and monitored by daily sticking and inventory reconciliation. Although a vadose zone monitoring system with wells and hydrocarbon sensors has been installed by Riverside Cement, the County, at this time, does not allow this type of continuous monitoring. The daily tank stick readings and reconciliation are summarized in a yearly report that is forwarded to the County in accordance with the underground tank permit (See Appendix B, Monthly Inventory Reconciliation Form).

FUELING TRANSFER OPERATIONS

Fueling operations occur at two areas: white kilns and the service garage.

White Kilns

Diesel trucks are fueled from the 12,000 gallon tanks at the white kilns. The fueling operation is manual and attended at all times by an operator. The tank is filled by tanker truck and manned continuously during the transfer of fuel from the truck to the tank. The dispenser is calibrated annually. The tank is precision tested annually.

Service Garage

Maintenance vehicles are fueled with unleaded gasoline by a dispenser pump located at the tank. The fueling operation is manual and attended at all times by an operator. The tank is filled by a tanker truck and manned continuously during the transfer of fuel from the truck to the tank. The dispenser is calibrated annually. The tank is precision tested annually.

DRAINAGE

The white kilns are constructed in the southerly portion of the site. Drainage in the immediate area of the underground tanks will be over native soils in a southwesterly direction. At the above ground tank drainage sheet flows towards the northwest over native soils. There are no storm drain inlets within the immediate vicinity of both tank sites.

The terrain is generally flat in the area of the service garage. In the garage area, the drainage pattern is towards the north, east and west at the underground unleaded gasoline tank area. Towards the north and east is a grove of trees with no stormwater drainage system. Water and fuel flowing in this direction will either evaporate or percolate within the soils. To the west of the tank site is the garage area that is paved with asphalt. Drainage in this portion of the garage area (east side) is southerly toward the above ground motor oil tank. At the used motor oil tank, drainage sheet flows toward the grove of trees to the east.

Security

The facility is fenced and there is only one entrance to the facility. Other gated access points on the perimeter of the facility are locked and used only by authorized personnel. The main entrance to the property is under 24 hour camera surveillance that is wired to the main control room. Additionally, all of the operational areas within the site are well lighted for security and night-time work.

SECTION 4

PREDICTION AND PREVENTION OF POTENTIAL SPILLS

In this section the potential for spills is evaluated in each of the oil storage areas. Where appropriate, systems to prevent spills are recommended and, if a major spill should occur (i.e. a tank rupture), techniques to mitigate spilled oils and fuels from leaving the drainage system are described for each area.

Potential Spills

Potential sources of spills within the facility can result from:

1) an above ground storage tank failure, such as a piping leak at the fuel and motor oil storage tanks,
2) an underground tank leak
3) a product pipe failure, and
4) a pump, nozzle, connecting pipe failure during the unloading of fuels and oils

A release of oil at the facility and the potential for oils entering the Santa Ana River by a series of drainage and irrigation ditches is considered low. Figure 3-1 indicates the drainage patterns within each tank area.

Oil released from the bulk No. 6 fuel oil tank reaching the Santa Ana River is also considered low. A catastrophic failure of the tank will be contained primarily in the designed and constructed containment structure. The oil that may flow beyond the containment structure will sheet flow in a northwesterly direction onto an open soil covered area. It is possible that continued flow of oil in this direction could reach the western boundary of the property where a drainage swale directs flow in a southerly direction to a drainage system. Although this scenario is considered remote, if the bulk tank does rupture, Riverside Cement must act quickly to berm off the entrance to the drainage system on the southern boundary of the property.

The lowest potential for oil entering the Santa Ana River system is from the tanks at the service garage. In this area of the site, drainage will either

evaporate or percolate. There are no storm water collection systems in the area. A sanitary sewer is installed in a north-south direction on the east side of the garage, however, the manhole covers and rims on the sewer are installed above the local grade.

Each of the potential failure modes and countermeasure plans are described below. Minor leakage from tanks, piping, connections, valves, and transfer operations must be identified, corrected, and cleaned-up as soon as practical. Attention to periodic inspection and maintenance will prevent larger releases from occurring from the oil storage systems.

ABOVE GROUND STORAGE TANK FAILURE

The above ground No. 6 fuel oil tank at the white kilns is contained by an earthen berm. At the No. 6 fuel oil tank, stormwater accumulation within the containment area is checked after every storm and allowed to evaporate. Water within the tank is normally not checked by the facility. Water content in the tank should be check on a periodic basis and, when accumulated, released through bottom withdrawal piping and valving. If water is allowed to accumulate on the bottom of the steel tank, rusting and weakening of the steel may result in a leak and potential release of oil to the sand base underneath the tank.

Drainage valves on tanks and containment structures must be closed and locked to prevent unauthorized opening of the valves. After a rainstorm, the accumulated storm water should be check for oil sheen or floating oils. If none are observed, the drainage valve is unlocked, opened, and rain water observed flowing from the containment area. When flow stops, the drainage valve is closed and locked. The inspection and drainage is then noted on the inspection block in the daily production log.

In all above ground tank locations, the best preventative actions is to have regular inspections of each storage area and to maintain sufficient containment at the potential sources of spills. The tanks are filled by tanker truck and there is a potential for spills during the transfer operation or during the piping connection or disconnection process. Since the process is continually manned during the transfer process, the spills would be minor and can be contained, absorbed, and cleaned by the off-loading personnel. Material used in cleaning process (rags and adsorbent material) are stored

in drums within the concrete containment structure at the No. 6 fuel oil unloading station.

UNDERGROUND TANKS

The underground tanks at the site are permitted and operated within underground tank guidelines. The single-walled tanks are monitored by daily sticking and reconciliation. This tank monitoring technique is preferred and permitted by the County. Additionally, the tanks are precision tested annually. Previous tests have been reported as passing the precision testing criteria mandated by the State of California.

The tank volumes are determined each day by sticking of the tanks. Fuel usage is reconciled on a daily basis with records kept at the white kiln stores/purchasing office. The dispenser pumps are calibrated on an annual basis.

By tank sticking and daily reconciliation, leakage of hydrocarbons from the tanks can be detected within a reasonable time period. If a leak is suspected through the reconciliation process, the operators at the facility should immediately determine if a leak has occurred at the tank. With the vadose wells installed at the site, vapor surveillance of the wells would be an initial action. This action should be followed by either drilling bore holes and sampling soil underneath the tank(s), or uncovering the tank(s) and piping. If confirmed, the underground tank regulations must be followed by Riverside Cement personnel to determine the extent of leak, notification, and potential decommissioning of the tank.

The tanks are not cathodically protected. The potential exists for the steel tanks to degrade and lose metal to surrounding soils. Riverside Cement should schedule to install cathodic protection for the underground tanks to comply with the State's latest underground tank regulation changes.

PIPING FAILURE

Oil piping routes are minimal at the facility. The only significant product pumping occurs at the white kiln between the No. 6 fuel oil tank and the kiln and between the underground diesel fuel tanks and the dispenser

pumps and kiln. This piping is for the most-part above-ground and subject to the pressure created by the transfer pumps, piping, and dispenser nozzle system. Leakage potential is considered minimal and periodically checked by plant personnel. Minor leaks can be contained with absorbent materials.

Underground piping is minimal. The underground piping system must be periodically hydrostatically tested to confirm pipeline integrity.

PUMP, NOZZLE, PIPING, AND FILTER FAILURE

Transfer pumps convey fuels and oils to and from the storage tanks and to maintenance vehicles. Leaks at the piping connections, nozzles, air releases, filters, and the pump seals will usually be minor in quantity and easily contained with absorbent materials. Additionally, these fuel transfers are continually manned and monitored during the operation. Transfer flow rates are normally low such that a pump failure or breach in the delivery nozzle to a vehicle will be small and minor in volume.

The No. 6 fuel oil transfer operation occurs in a two stage process. The first stage is a recirculation and feed system to a boiler. The circulation pumps are located to the south of the storage tank and within the containment area. The flow and operating pressure are 25 gpm and 60 psig, respectively. Since the piping is primarily above ground, leakage in the system can be detected during the daily visual inspections. The portion of this piping that is routed underground can be checked by periodic hydrostatic testing.

The second stage of pumping is from the recirculation system to the kilns. In this part of the fuel feed system, all of the piping is above ground and visually inspected on a daily basis. The system operates at 600 psig. If leaks are noticed in this system, a work order is normally written and the repairs made by plant personnel when time permits. The minor leaks are normally contained by adsorbent material. If the leak is determined to be significant, then the procedure would be to stop the kilns, contain the oils, isolate the piping section, and repair the leak.

SECTION 5

SPILL CLEANUP PROCEDURES AND EQUIPMENT

The following are general actions that will always be carried out in a spill:

- Anyone finding a spill will immediately NOTIFY the Emergency Coordinator (EC).
- The EC will activate internal alarms and dispatch available personnel to the scene to assist in containing the spilled oils.
- The EC will go to the spill scene and immediately: identify the character, exact source, amount, and areal extent of any released material; determine the severity of the spill and hazards to human health; take charge of the spill scene; and initiate the clean up.
- The EC will notify the appropriate persons and agencies as listed in the following paragraphs of this Section.
- The EC or designee will remain at the spill scene to direct the clean up and initiate disposal.
- Response personnel will cover spills with earth, sand, or dry absorbant and use earth or sand to make dikes.
- If the material is combustible, responders will be aware of the fire hazard and contain such spills carefully to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous wastes at the facility.
- Responders will never allow the oil or oil sludges to enter the storm drain system.
- Prior to pumping dewatering sumps at the facility, responders will ensure the sumps are free of oil by checking for surface oil sheens.

Reporting

The Clean Water Act requires reporting to the National Response Center (NRC) whenever oil is "spilled". The following notifications are required in the event of an oil spill:

- **NRC (Federal Requirement) (800) 424-8802**

  Written follow-up to the Department of Transportation on Form F 5800.1 within 10 days.

- **California Office of Emergency Services (OES) (800) 852-7550**

  No written follow-up required.

- **Riverside County - Hazardous Materials Division - Emergency Response (909) 358-5055 or 909-657-3183 after hours**

  Written follow-up is required.

When a spill is reported, the following information must be communicated:

- Type of oil (gasoline, diesel, journal oil, etc.);
- Approximate quantity released;
- Time and duration of release;
- Current status of containment;
- Health risks posed by the release; and
- Name of person reporting and call-back phone number.

If the facility has a "spill" of more than 1,000 gallons or two "spills" in any twelve month period, then the Emergency Coordinator must submit the following to the EPA Regional Administrator within 60 days of the triggering spill:

- Name of the facility;
- Name of the owner or operator of the facility;
- Location of the facility;
- Date and year of initial facility operation;

- Maximum storage or handling capacity and normal daily throughput;
- Description of the facility, including maps, flow diagrams, and topographical maps;
- A complete copy of the SPCC Plan with amendments;
- The cause of the spill, including a failure analysis for systems in which the failure occurred;
- The corrective actions and/or countermeasures taken;
- Additional preventive measures taken to minimize recurrence; and
- Other action that the Regional Administrator may require relevant to the spill or Plan (see 40 CFR 112.4).

EMERGENCY EQUIPMENT AND SUPPLIES

A spill cart is located in the mill foreman's truck which is manned 24 hours a day. The following equipment should be stored and maintained in each Emergency Spill Control cart:

- one 55-gallon drum;
- one recovery drum;
- two Tyvek suits;
- one PVC splash suit;
- two MSA 1/2-face, negative-pressure respirators with combination-type cartridges;
- a pallet of dry absorbant;
- acid and oil absorbant spill pillows;
- one broom; one shovel;
- one roll of caution tape
- one plastic liner for 55 gallon drum;
- two pairs of rubber boots, neoprene gloves, and splash goggles;
- three rolls of duct tape;
- one response guide book
- one copy of the SPCC plan; and
- one tool pouch (hammer, pliers, screwdriver, adjustable wrench).

In addition to the equipment listed above, 50 pound sacks of absorbant are available throughout the facility. The Environmental Coordinator should inventory the contents of the cart against the above list and check the mobility of cart each quarter. The completion of each quarterly inventory will be reported in writing to the Plant Manager. These inventory reports will be maintained on file in the Plant Manager's office for three years.

SECTION 6

PERSONNEL TRAINING AND SPILL PREVENTION

Training in the SPCC spill response procedures will be conducted annually and reviewed quarterly. In addition, new employees with emergency response responsibilities will be trained in SPCC response procedures within 60 days of employment.

To comply with the SPCC Regulation, Rick Neumann, the Environmental Coordinator, is designated as the person responsible for oil spill prevention and training. He will be responsible for:

1. Instructing facility personnel in the operation of equipment in such a manner as to prevent an oil spill.

2. Informing facility personnel of the applicable pollution laws, rules and regulations affecting the facility.

3. Maintaining equipment necessary to prevent spills.

4. Observing on a regular basis loading and unloading operations to determine that proper operating procedures are being followed and to afford an opportunity to inspect equipment under operating conditions.

5. Checking that the spill prevention plans are coordinated and complied with on the schedule set forth in Section 7.

6. Holding spill prevention briefings with personnel on a quarterly basis and with special attention given to reviewing and updating this SPCC Plan.

7. Signing and maintaining records of inspection and spills on discharges with this SPCC Plan for a minimum period of 3 years.

8. Maintaining a complete copy of this SPCC Plan at the facility at all times.

9. Updating this SPCC Plan within three years of certification or sooner if significant changes to facility have occurred.

SECTION 7

SPILL PREVENTION CHECKLIST

Prevention of a spill event requires following procedures to minimize failures and accidents from occurring at the Riverside Cement Facility. The following is a general checklist of procedures and inspections to be followed on a periodic basis.

CHECKLISTS

1.) Daily
   - A. Visually inspect all tanks, piping, pumps, and related equipment for leakage, corrosion and fatigue.
   - B. Check product inventory for possible losses due to leaks in tanks and underground piping.
   - C. Drain containment areas and sumps as required to provide maximum volume for containment of potential spills.
   - D. Check structural bolting around the outside of the No. 6 fuel oil tank. Check for leaks from bolted sidewall seams of tank. Check for corrosion.
   - E. Log the inspection results and other tank monitoring inspections (See Daily Production Shif Supervisors Log).

2.) Monthly
   - A. Exercise manually actuated isolating valves and inspect automatic valves.
   - B. Test that tank float level switches are functioning properly.

3.) Quarterly
   - A. Review spill prevention plans and hold spill prevention briefing with staff.
   - B. Check inventory and mobility of spill cart.

4.) Annually

A. Precision test underground tanks for tightness and leaks as required.

B. Pressure test underground oil piping and above ground piping.

C. Calibrate dispenser meters.

D. Calibrate gaging tapes on storage tanks.

E. Pressure test fuel oil steam heat piping.

APPENDIX A

40 CFR Part 112: Oil Pollution Prevention (Regulation for Preparation of SPCC Plans)

area, 426-2675). If direct reporting to the NRC is not practicable, reports may be made to the Coast Guard or EPA predesignated On-Scene Coordinator (OSC) for the geographic area where the discharge occurs. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or the predesignated OCS immediately, reports may be made immediately to the nearest Coast Guard unit, provided that the person in charge of the vessel or onshore or offshore facility notifies the NRC as soon as possible. The reports shall be made in accordance with such procedures as the Secretary of Transportation may prescribe. The procedures for such notice are set forth in U.S. Coast Guard regulations, 33 CFR Part 153, Subpart B and in the National Oil and Hazardous Substances Pollution Contingency Plan, 40 CFR Part 300, Subpart E. (Approved by the Office of Management and Budget under the control number 2050-0046)

§ 110.11 Discharge at deepwater ports.

(a) Except as provided in paragraph (b) below, for purposes of section 18(m)(3) of the Deepwater Port Act of 1974, the term "discharge" shall include but not be limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping into the marine environment of quantities of oil that:

(1) Violate applicable water quality standards, or

(2) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

(b) For purposes of section 18(m)(3) of the Deepwater Port Act of 1974, the term "discharge" excludes:

(1) Discharges of oil from a properly functioning vessel engine, (including an engine on a public vessel), but not discharges of such oil accumulated in a vessel's bilges (unless in compliance with MARPOL 73/78, Annex I); and

(2) Discharges of oil permitted under MARPOL 73/78, Annex I.

PART 112—OIL POLLUTION PREVENTION

Sec.

112.1 General applicability.
112.2 Definitions.
112.3 Requirements for preparation and implementation of Spill Prevention Control and Countermeasure Plans.
112.4 Amendment of SPCC Plans by Regional Administrator.
112.5 Amendment of Spill Prevention Control and Countermeasure Plans by owners or operators.
112.6 Civil penalties for violation of oil pollution prevention regulations.
112.7 Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasure Plan.

APPENDIX—MEMORANDUM OF UNDERSTANDING BETWEEN THE SECRETARY OF TRANSPORTATION AND THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

AUTHORITY: Secs. 311(j)(1)(C), 311(j)(2), 501(a), Federal Water Pollution Control Act (sec. 2, Pub. L. 92-500, 86 Stat. 816 et seq. (33 U.S.C. 1251 et seq.)); sec. 4(b), Pub. L. 92-500, 86 Stat. 897; 5 U.S.C. Reorg. Plan of 1970 No. 3 (1970), 35 FR 15623, 3 CFR 1966-1970 Comp.; E.O. 11735, 38 FR 21243, 3 CFR.

SOURCE: 38 FR 34165, Dec. 11, 1973, unless otherwise noted.

§ 112.1 General applicability.

(a) This part establishes procedures, methods and equipment and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines.

(b) Except as provided in paragraph (d) of this section, this part applies to owners or operators of non-transportation-related onshore and offshore facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing or consuming oil and oil products, and which, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in Part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines.

(c) As provided in section 313 (86 Stat. 875) departments, agencies, and instrumentalities of the Federal gov-

ernment are subject to these regulations to the same extent as any person, except for the provisions of § 112.6.

(d) This part does not apply to:

(1) Facilities, equipment or operations which are not subject to the jurisdiction of the Environmental Protection Agency, as follows:

(i) Onshore and offshore facilities, which, due to their location, could not reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines. This determination shall be based solely upon a consideration of the geographical, locational aspects of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, drainage, etc.) and shall exclude consideration of manmade features such as dikes, equipment or other structures which may serve to restrain, hinder, contain, or otherwise prevent a discharge of oil from reaching navigable waters of the United States or adjoining shorelines; and

(ii) Equipment or operations of vessels or transportation-related onshore and offshore facilities which are subject to authority and control of the Department of Transportation, as defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24000.

(2) Those facilities which, although otherwise subject to the jurisdiction of the Environmental Protection Agency, meet both of the following requirements:

(i) The underground buried storage capacity of the facility is 42,000 gallons or less of oil, and

(ii) The storage capacity, which is not buried, of the facility is 1,320 gallons or less of oil, provided no single container has a capacity in excess of 660 gallons.

(e) This part provides for the preparation and implementation of Spill Prevention Control and Countermeasure Plans prepared in accordance with § 112.7, designed to complement existing laws, regulations, rules, standards, policies and procedures pertaining to safety standards, fire prevention and pollution prevention rules, so as to form a comprehensive balanced Federal/State spill prevention program to minimize the potential for oil discharges. Compliance with this part does not in any way relieve the owner or operator of an onshore or an offshore facility from compliance with other Federal, State or local laws.

[38 FR 34165, Dec. 11, 1973, as amended at 41 FR 12657, Mar. 26, 1976]

§ 112.2 Definitions.

For the purposes of this part:

(a) "Oil" means oil of any kind or in any form, including, but not limited to petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil.

(b) "Discharge" includes but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping. For purposes of this part, the term "discharge" shall not include any discharge of oil which is authorized by a permit issued pursuant to section 13 of the River and Harbor Act of 1899 (30 Stat. 1121, 33 U.S.C. 407), or sections 402 or 405 of the FWPCA Amendments of 1972 (86 Stat. 816 et seq., 33 U.S.C. 1251 et seq.).

(c) "Onshore facility" means any facility of any kind located in, on, or under any land within the United States, other than submerged lands, which is not a transportation-related facility.

(d) "Offshore facility" means any facility of any kind located in, on, or under any of the navigable waters of the United States, which is not a transportation-related facility.

(e) "Owner or operator" means any person owning or operating an onshore facility or an offshore facility, and in the case of any abandoned offshore facility, the person who owned or operated such facility immediately prior to such abandonment.

(f) "Person" includes an individual, firm, corporation, association, and a partnership.

(g) "Regional Administrator", means the Regional Administrator of the Environmental Protection Agency, or his designee, in and for the Region in which the facility is located.

(h) "Transportation-related" and "non-transportation-related" as applied to an onshore or offshore facility, are defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24080.

(i) "Spill event" means a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines in harmful quantities, as defined at 40 CFR Part 110.

(j) "United States" means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Canal Zone, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands.

(k) The term "navigable waters" of the United States means "navigable waters" as defined in section 502(7) of the FWPCA, and includes:

(1) All navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA (Pub. L. 92-500), and tributaries of such waters;

(2) Interstate waters;

(3) Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and

(4) Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

(l) "Vessel" means every description of watercraft or other artificial contrivance used, or capable of being used as a means of transportation on water, other than a public vessel.

§ 112.3 Requirements for preparation and implementation of Spill Prevention Control and Countermeasure Plans.

(a) Owners or operators of onshore and offshore facilities in operation on or before the effective date of this part that have discharged or, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare a Spill Prevention Control and Countermeasure Plan (hereinafter "SPCC Plan"), in writing and in accordance with § 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the effective date of this part and shall be fully implemented as soon as possible, but not later than one year after the effective date of this part.

(b) Owners or operators of onshore and offshore facilities that become operational after the effective date of this part, and that have discharged or could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare an SPCC Plan in accordance with § 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the date such facility begins operations and shall be fully implemented as soon as possible, but not later than one year after such facility begins operations.

(c) Owners or operators of onshore and offshore mobile or portable facilities, such as onshore drilling or workover rigs, barge mounted offshore drilling or workover rigs, and portable fueling facilities shall prepare and implement an SPCC Plan as required by paragraphs (a), (b) and (d) of this section. The owners or operators of such facility need not prepare a new SPCC Plan each time the facility is moved to a new site. The SPCC Plan may be a general plan, prepared in accordance with § 112.7, using good engineering practice. When the mobile or portable facility is moved, it must be located and installed using the spill prevention practices outlined in the SPCC Plan for the facility. No mobile or portable facility subject to this regulation shall operate unless the SPCC Plan has been implemented. The SPCC Plan shall only apply while the facility is in a fixed (non-transportation) operating mode.

(d) No SPCC Plan shall be effective to satisfy the requirements of this part unless it has been reviewed by a Registered Professional Engineer and certified to by such Professional Engineer. By means of this certification

the engineer, having examined the facility and being familiar with the provisions of this part, shall attest that the SPCC Plan has been prepared in accordance with good engineering practices. Such certification shall in no way relieve the owner or operator of an onshore or offshore facility of his duty to prepare and fully implement such Plan in accordance with § 112.7, as required by paragraphs (a), (b) and (c) of this section.

(e) Owners or operators of a facility for which an SPCC Plan is required pursuant to paragraph (a), (b) or (c) of this section shall maintain a complete copy of the Plan at such facility if the facility is normally attended at least 8 hours per day, or at the nearest field office if the facility is not so attended, and shall make such Plan available to the Regional Administrator for on-site review during normal working hours.

(f) Extensions of time.

(1) The Regional Administrator may authorize an extension of time for the preparation and full implementation of an SPCC Plan beyond the time permitted for the preparation and implementation of an SPCC Plan pursuant to paragraph (a), (b) or (c) of this section where he finds that the owner or operator of a facility subject to paragraphs (a), (b) or (c) of this section cannot fully comply with the requirements of this part as a result of either nonavailability of qualified personnel, or delays in construction or equipment delivery beyond the control and without the fault of such owner or operator or their respective agents or employees.

(2) Any owner or operator seeking an extension of time pursuant to paragraph (f)(1) of this section may submit a letter of request to the Regional Administrator. Such letter shall include:

(i) A complete copy of the SPCC Plan, if completed;

(ii) A full explanation of the cause for any such delay and the specific aspects of the SPCC Plan affected by the delay;

(iii) A full discussion of actions being taken or contemplated to minimize or mitigate such delay;

(iv) A proposed time schedule for the implementation of any corrective actions being taken or contemplated, including interim dates for completion of tests or studies, installation and operation of any necessary equipment or other preventive measures.

In addition, such owner or operator may present additional oral or written statements in support of his letter of request.

(3) The submission of a letter of request for extension of time pursuant to paragraph (f)(2) of this section shall in no way relieve the owner or operator from his obligation to comply with the requirements of § 112.3 (a), (b) or (c). Where an extension of time is authorized by the Regional Administrator for particular equipment or other specific aspects of the SPCC Plan, such extension shall in no way affect the owner's or operator's obligation to comply with the requirements of § 112.3 (a), (b) or (c) with respect to other equipment or other specific aspects of the SPCC Plan for which an extension of time has not been expressly authorized.

[38 FR 34165, Dec. 11, 1973, as amended at 41 FR 12657, Mar. 26, 1976]

§ 112.4 Amendment of SPCC Plans by Regional Administrator.

(a) Notwithstanding compliance with § 112.3, whenever a facility subject to § 112.3 (a), (b) or (c) has: Discharged more than 1,000 U.S. gallons of oil into or upon the navigable waters of the United States or adjoining shorelines in a single spill event, or discharged oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines in two spill events, reportable under section 311(b)(5) of the FWPCA, occurring within any twelve month period, the owner or operator of such facility shall submit to the Regional Administrator, within 60 days from the time such facility becomes subject to this section, the following:

(1) Name of the facility;

(2) Name(s) of the owner or operator of the facility;

(3) Location of the facility;

(4) Date and year of initial facility operation;

G-1233

(5) Maximum storage or handling capacity of the facility and normal daily throughput;

(6) Description of the facility, including maps, flow diagrams, and topographical maps;

(7) A complete copy of the SPCC Plan with any amendments;

(8) The cause(s) of such spill, including a failure analysis of system or subsystem in which the failure occurred;

(9) The corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements;

(10) Additional preventive measures taken or contemplated to minimize the possibility of recurrence;

(11) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or spill event.

(b) Section 112.4 shall not apply until the expiration of the time permitted for the preparation and implementation of an SPCC Plan pursuant to § 112.3 (a), (b), (c) and (f).

(c) A complete copy of all information provided to the Regional Administrator pursuant to paragraph (a) of this section shall be sent at the same time to the State agency in charge of water pollution control activities in and for the State in which the facility is located. Upon receipt of such information such State agency may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment and other requirements for equipment necessary to prevent and to contain discharges of oil from such facility.

(d) After review of the SPCC Plan for a facility subject to paragraph (a) of this section, together with all other information submitted by the owner or operator of such facility, and by the State agency under paragraph (c) of this section, the Regional Administrator may require the owner or operator of such facility to amend the SPCC Plan if he finds that the Plan does not meet the requirements of this part or that the amendment of the Plan is necessary to prevent and to contain discharges of oil from such facility.

(e) When the Regional Administrator proposes to require an amendment to the SPCC Plan, he shall notify the facility operator by certified mail addressed to, or by personal delivery to, the facility owner or operator, that he proposes to require an amendment to the Plan, and shall specify the terms of such amendment. If the facility owner or operator is a corporation, a copy of such notice shall also be mailed to the registered agent, if any, of such corporation in the State where such facility is located. Within 30 days from receipt of such notice, the facility owner or operator may submit written information, views, and arguments on the amendment. After considering all relevant material presented, the Regional Administrator shall notify the facility owner or operator of any amendment required or shall rescind the notice. The amendment required by the Regional Administrator shall become part of the Plan 30 days after such notice, unless the Regional Administrator, for good cause, shall specify another effective date. The owner or operator of the facility shall implement the amendment of the Plan as soon as possible, but not later than six months after the amendment becomes part of the Plan, unless the Regional Administrator specifies another date.

(f) An owner or operator may appeal a decision made by the Regional Administrator requiring an amendment to an SPCC Plan. The appeal shall be made to the Administrator of the United States Environmental Protection Agency and must be made in writing within 30 days of receipt of the notice from the Regional Administrator requiring the amendment. A complete copy of the appeal must be sent to the Regional Administrator at the time the appeal is made. The appeal shall contain a clear and concise statement of the issues and points of fact in the case. It may also contain additional information from the owner or operator, or from any other person. The Administrator or his designee may request additional information from the owner or operator, or from any other person. The Administrator or his designee shall render a decision within 60 days of receiving the appeal and shall notify the owner or operator of his decision.

[38 FR 34165, Dec. 11, 1973, as amended at 41 FR 12658, Mar. 26, 1976]

§ 112.5 Amendment of Spill Prevention Control and Countermeasure Plans by owners or operators.

(a) Owners or operators of facilities subject to § 112.3 (a), (b) or (c) shall amend the SPCC Plan for such facility in accordance with § 112.7 whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shore lines. Such amendments shall be fully implemented as soon as possible, but not later than six months after such change occurs.

(b) Notwithstanding compliance with paragraph (a) of this section, owners and operators of facilities subject to § 112.3 (a), (b) or (c) shall complete a review and evaluation of the SPCC Plan at least once every three years from the date such facility becomes subject to this part. As a result of this review and evaluation, the owner or operator shall amend the SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) Such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field-proven at the time of the review.

(c) No amendment to an SPCC Plan shall be effective to satisfy the requirements of this section unless it has been certified by a Professional Engineer in accordance with § 112.3(d).

§ 112.6 Civil penalties for violation of oil pollution prevention regulations.

Owners or operators of facilities subject to § 112.3 (a), (b) or (c) who violate the requirements of this Part 112 by failing or refusing to comply with any of the provisions of § 112.3, § 112.4 or § 112.5 shall be liable for a civil penalty of not more than $5,000 for each day such violation continues. Civil penalties shall be imposed in accordance with procedures set out in Part 114 of this Subchapter D.

(Secs. 311(j), 501(a), Pub. L. 92-500, 86 Stat. 868, 885 (33 U.S.C. 1321(j), 1361(a)))

[39 FR 31602, Aug. 29, 1974]

§ 112.7 Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasure Plan.

The SPCC Plan shall be a carefully thought-out plan, prepared in accordance with good engineering practices, and which has the full approval of management at a level with authority to commit the necessary resources. If the plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, these items should be discussed in separate paragraphs, and the details of installation and operational start-up should be explained separately. The complete SPCC Plan shall follow the sequence outlined below, and include a discussion of the facility's conformance with the appropriate guidelines listed:

(a) A facility which has experienced one or more spill events within twelve months prior to the effective date of this part should include a written description of each such spill, corrective action taken and plans for preventing recurrence.

(b) Where experience indicates a reasonable potential for equipment failure (such as tank overflow, rupture, or leakage), the plan should include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure.

(c) Appropriate containment and/or diversionary structures or equipment to prevent discharged oil from reaching a navigable water course should be provided. One of the following preventive systems or its equivalent should be used as a minimum:

(1) Onshore facilities:

(i) Dikes, berms or retaining walls sufficiently impervious to contain spilled oil;

(ii) Curbing;

(iii) Culverting, gutters or other drainage systems;

(iv) Weirs, booms or other barriers;

(v) Spill diversion ponds;

(vi) Retention ponds;

(vii) Sorbent materials.

(2) Offshore facilities:

30-142 O—89——2

(i) Curbing, drip pans;

(ii) Sumps and collection systems.

(d) When it is determined that the installation of structures or equipment listed in § 112.7(c) to prevent discharged oil from reaching the navigable waters is not practicable from any onshore or offshore facility, the owner or operator should clearly demonstrate such impracticability and provide the following:

(1) A strong oil spill contingency plan following the provision of 40 CFR Part 109.

(2) A written commitment of manpower, equipment and materials required to expeditiously control and remove any harmful quantity of oil discharged.

(e) In addition to the minimal prevention standards listed under § 112.7(c), sections of the Plan should include a complete discussion of conformance with the following applicable guidelines, other effective spill prevention and containment procedures (or, if more stringent, with State rules, regulations and guidelines):

(1) *Facility drainage (onshore); (excluding production facilities).* (i) Drainage from diked storage areas should be restrained by valves or other positive means to prevent a spill or other excessive leakage of oil into the drainage system or inplant effluent treatment system, except where plan systems are designed to handle such leakage. Diked areas may be emptied by pumps or ejectors; however, these should be manually activated and the condition of the accumulation should be examined before starting to be sure no oil will be discharged into the water.

(ii) Flapper-type drain valves should not be used to drain diked areas. Valves used for the drainage of diked areas should, as far as practical, be of manual, open-and-closed design. When plant drainage drains directly into water courses and not into wastewater treatment plants, retained storm water should be inspected as provided in paragraphs (e)(2)(iii) (B), (C) and (D) of this section before drainage.

(iii) Plant drainage systems from undiked areas should, if possible, flow into ponds, lagoons or catchment basins, designed to retain oil or return it to the facility. Catchment basins should not be located in areas subject to periodic flooding.

(iv) If plant drainage is not engineered as above, the final discharge of all in-plant ditches should be equipped with a diversion system that could, in the event of an uncontrolled spill, return the oil to the plant.

(v) Where drainage waters are treated in more than one treatment unit, natural hydraulic flow should be used. If pump transfer is needed, two "lift" pumps should be provided, and at least one of the pumps should be permanently installed when such treatment is continuous. In any event, whatever techniques are used facility drainage systems should be adequately engineered to prevent oil from reaching navigable waters in the event of equipment failure or human error at the facility.

(2) *Bulk storage tanks (onshore); (excluding production facilities).* (i) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature, etc.

(ii) All bulk storage tank installations should be constructed so that a secondary means of containment is provided for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spilled oil. Dikes, containment curbs, and pits are commonly employed for this purpose, but they may not always be appropriate. An alternative system could consist of a complete drainage trench enclosure arranged so that a spill could terminate and be safely confined in an inplant catchment basin or holding pond.

(iii) Drainage of rainwater from the diked area into a storm drain or an effluent discharge that empties into an open water course, lake, or pond, and bypassing the in-plant treatment system may be acceptable if:

(A) The bypass valve is normally sealed closed.

(B) Inspection of the run-off rain water ensures compliance with applicable water quality standards and will

not cause a harmful discharge as defined in 40 CFR Part 110.

(C) The bypass valve is opened, and resealed following drainage under responsible supervision.

(D) Adequate records are kept of such events.

(iv) Buried metallic storage tanks represent a potential for undetected spills. A new buried installation should be protected from corrosion by coatings, cathodic protection or other effective methods compatible with local soil conditions. Such buried tanks should at least be subjected to regular pressure testing.

(v) Partially buried metallic tanks for the storage of oil should be avoided, unless the buried section of the shell is adequately coated, since partial burial in damp earth can cause rapid corrosion of metallic surfaces, especially at the earth/air interface.

(vi) Aboveground tanks should be subject to periodic integrity testing, taking into account tank design (floating roof, etc.) and using such techniques as hydrostatic testing, visual inspection or a system of non-destructive shell thickness testing. Comparison records should be kept where appropriate, and tank supports and foundations should be included in these inspections. In addition, the outside of the tank should frequently be observed by operating personnel for signs of deterioration, leaks which might cause a spill, or accumulation of oil inside diked areas.

(vii) To control leakage through defective internal heating coils, the following factors should be considered and applied, as appropriate.

(A) The steam return or exhaust lines from internal heating coils which discharge into an open water course should be monitored for contamination, or passed through a settling tank, skimmer, or other separation or retention system.

(B) The feasibility of installing an external heating system should also be considered.

(viii) New and old tank installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to avoid spills. Consideration should be given to providing one or more of the following devices:

(A) High liquid level alarms with an audible or visual signal at a constantly manned operation or surveillance station; in smaller plants an audible air vent may suffice.

(B) Considering size and complexity of the facility, high liquid level pump cutoff devices set to stop flow at a predetermined tank content level.

(C) Direct audible or code signal communication between the tank gauger and the pumping station.

(D) A fast response system for determining the liquid level of each bulk storage tank such as digital computers, telepulse, or direct vision gauges or their equivalent.

(E) Liquid level sensing devices should be regularly tested to insure proper operation.

(ix) Plant effluents which are discharged into navigable waters should have disposal facilities observed frequently enough to detect possible system upsets that could cause an oil spill event.

(x) Visible oil leaks which result in a loss of oil from tank seams, gaskets, rivets and bolts sufficiently large to cause the accumulation of oil in diked areas should be promptly corrected.

(xi) Mobile or portable oil storage tanks (onshore) should be positioned or located so as to prevent spilled oil from reaching navigable waters. A secondary means of containment, such as dikes or catchment basins, should be furnished for the largest single compartment or tank. These facilities should be located where they will not be subject to periodic flooding or washout.

(3) *Facility transfer operations, pumping, and in-plant process (onshore); (excluding production facilities).* (i) Buried piping installations should have a protective wrapping and coating and should be cathodically protected if soil conditions warrant. If a section of buried line is exposed for any reason, it should be carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action should be taken as indicated by the magnitude of the damage. An alternative would

be the more frequent use of exposed pipe corridors or galleries.

(ii) When a pipeline is not in service, or in standby service for an extended time the terminal connection at the transfer point should be capped or blank-flanged, and marked as to origin.

(iii) Pipe supports should be properly designed to minimize abrasion and corrosion and allow for expansion and contraction.

(iv) All aboveground valves and pipelines should be subjected to regular examinations by operating personnel at which time the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces should be assessed. In addition, periodic pressure testing may be warranted for piping in areas where facility drainage is such that a failure might lead to a spill event.

(v) Vehicular traffic granted entry into the facility should be warned verbally or by appropriate signs to be sure that the vehicle, because of its size, will not endanger above ground piping.

(4) *Facility tank car and tank truck loading/unloading rack (onshore).* (i) Tank car and tank truck loading/unloading procedures should meet the minimum requirements and regulation established by the Department of Transportation.

(ii) Where rack area drainage does not flow into a catchment basin or treatment facility designed to handle spills, a quick drainage system should be used for tank truck loading and unloading areas. The containment system should be designed to hold at least maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded in the plant.

(iii) An interlocked warning light or physical barrier system, or warning signs, should be provided in loading/unloading areas to prevent vehicular departure before complete disconnect of flexible or fixed transfer lines.

(iv) Prior to filling and departure of any tank car or tank truck, the lowermost drain and all outlets of such vehicles should be closely examined for leakage, and if necessary, tightened, adjusted, or replaced to prevent liquid leakage while in transit.

(5) *Oil production facilities (onshore)*—(i) *Definition.* An onshore production facility may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) *Oil production facility (onshore) drainage.* (A) At tank batteries and central treating stations where an accidental discharge of oil would have a reasonable possibility of reaching navigable waters, the dikes or equivalent required under § 112.7(c)(1) should have drains closed and sealed at all times except when rainwater is being drained. Prior to drainage, the diked area should be inspected as provided in paragraphs (e)(2)(iii) (B), (C), and (D) of this section. Accumulated oil on the rainwater should be picked up and returned to storage or disposed of in accordance with approved methods.

(B) Field drainage ditches, road ditches, and oil traps, sumps or skimmers, if such exist, should be inspected at regularly scheduled intervals for accumulation of oil that may have escaped from small leaks. Any such accumulations should be removed.

(iii) *Oil production facility (onshore) bulk storage tanks.* (A) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(B) All tank battery and central treating plant installations should be provided with a secondary means of containment for the entire contents of the largest single tank if feasible, or alternate systems such as those outlined in § 112.7(c)(1). Drainage from undiked areas should be safely confined in a catchment basin or holding pond.

(C) All tanks containing oil should be visually examined by a competent person for condition and need for maintenance on a scheduled periodic basis. Such examination should include the foundation and supports of tanks that are above the surface of the ground.

(D) New and old tank battery installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to prevent spills. Consideration should be given to one or more of the following:

(*1*) Adequate tank capacity to assure that a tank will not overfill should a pumper/gauger be delayed in making his regular rounds.

(*2*) Overflow equalizing lines between tanks so that a full tank can overflow to an adjacent tank.

(*3*) Adequate vacuum protection to prevent tank collapse during a pipeline run.

(*4*) High level sensors to generate and transmit an alarm signal to the computer where facilities are a part of a computer production control system.

(iv) *Facility transfer operations, oil production facility (onshore).* (A) All above ground valves and pipelines should be examined periodically on a scheduled basis for general condition of items such as flange joints, valve glands and bodies, drip pans, pipeline supports, pumping well polish rod stuffing boxes, bleeder and gauge valves.

(B) Salt water (oil field brine) disposal facilities should be exained often, particularly following a sudden change in atmospheric temperature to detect possible system upsets that could cause an oil discharge.

(C) Production facilities should have a program of flowline maintenance to prevent spills from this source. The program should include periodic examinations, corrosion protection, flowline replacement, and adequate records, as appropriate, for the individual facility.

(6) *Oil drilling and workover facilities (onshore).* (i) Mobile drilling or workover equipment should be positioned or located so as to prevent spilled oil from reaching navigable waters.

(ii) Depending on the location, catchment basins or diversion structures may be necessary to intercept and contain spills of fuel, crude oil, or oily drilling fluids.

(iii) Before drilling below any casing string or during workover operations, a blowout prevention (BOP) assembly and well control system should be installed that is capable of controlling any well head pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(7) *Oil drilling, production, or workover facilities (offshore).* (i) Definition: "An oil drilling, production or workover facility (offshore)" may include all drilling or workover equipment, wells, flowlines, gathering lines, platforms, and auxiliary nontransportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) Oil drainage collection equipment should be used to prevent and control small oil spillage around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and allied equipment. Drains on the facility should be controlled and directed toward a central collection sump or equivalent collection system sufficient to prevent discharges of oil into the navigable waters of the United States. Where drains and sumps are not practicable oil contained in collection equipment should be removed as often as necessary to prevent overflow.

(iii) For facilities employing a sump system, sump and drains should be adequately sized and a spare pump or equivalent method should be available to remove liquid from the sump and assure that oil does not escape. A regular scheduled preventive maintenance inspection and testing program should be employed to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(iv) In areas where separators and treaters are equipped with dump valves whose predominant mode of failure is in the closed position and pollution risk is high, the facility should be specially equipped to prevent the escape of oil. This could be accomplished by extending the flare line to a diked area if the separator is near shore, equipping it with a high liquid level sensor that will automatically shut-in wells producing to the

separator, parallel redundant dump valves, or other feasible alternatives to prevent oil discharges.

(v) Atmospheric storage or surge tanks should be equipped with high liquid level sensing devices or other acceptable alternatives to prevent oil discharges.

(vi) Pressure tanks should be equipped with high and low pressure sensing devices to activate an alarm and/or control the flow or other acceptable alternatives to prevent oil discharges.

(vii) Tanks should be equipped with suitable corrosion protection.

(viii) A written procedure for inspecting and testing pollution prevention equipment and systems should be prepared and maintained at the facility. Such procedures should be included as part of the SPCC Plan.

(ix) Testing and inspection of the pollution prevention equipment and systems at the facility should be conducted by the owner or operator on a scheduled periodic basis commensurate with the complexity, conditions and circumstances of the facility or other appropriate regulations.

(x) Surface and subsurface well shut-in valves and devices in use at the facility should be sufficiently described to determine method of activation or control, e.g., pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms. Detailed records for each well, while not necessarily part of the plan should be kept by the owner or operator.

(xi) Before drilling below any casing string, and during workover operations a blowout preventer (BOP) assembly and well control system should be installed that is capable of controlling any well-head pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(xii) Extraordinary well control measures should be provided should emergency conditions, including fire, loss of control and other abnormal conditions, occur. The degree of control system redundancy should vary with hazard exposure and probable consequences of failure. It is recommended that surface shut-in systems have redundant or "fail close" valving. Subsurface safety valves may not be needed in producing wells that will not flow but should be installed as required by applicable State regulations.

(xiii) In order that there will be no misunderstanding of joint and separate duties and obligations to perform work in a safe and pollution free manner, written instructions should be prepared by the owner or operator for contractors and subcontractors to follow whenever contract activities include servicing a well or systems appurtenant to a well or pressure vessel. Such instructions and procedures should be maintained at the offshore production facility. Under certain circumstances and conditions such contractor activities may require the presence at the facility of an authorized representative of the owner or operator who would intervene when necessary to prevent a spill event.

(xiv) All manifolds (headers) should be equipped with check valves on individual flowlines.

(xv) If the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves associated with that individual flowline, the flowline should be equipped with a high pressure sensing device and shut-in valve at the wellhead unless provided with a pressure relief system to prevent over pressuring.

(xvi) All pipelines appurtenant to the facility should be protected from corrosion. Methods used, such as protective coatings or cathodic protection, should be discussed.

(xvii) Sub-marine pipelines appurtenant to the facility should be adequately protected against environmental stresses and other activities such as fishing operations.

(xviii) Sub-marine pipelines appurtenant to the facility should be in good operating condition at all times and inspected on a scheduled periodic basis for failures. Such inspections should be documented and maintained at the facility.

(8) *Inspections and records.* Inspections required by this part should be

in accordance with written procedures developed for the facility by the owner or operator. These written procedures and a record of the inspections, signed by the appropriate supervisor or inspector, should be made part of the SPCC Plan and maintained for a period of three years.

(9) *Security (excluding oil production facilities).* (i) All plants handling, processing, and storing oil should be fully fenced, and entrance gates should be locked and/or guarded when the plant is not in production or is unattended.

(ii) The master flow and drain valves and any other valves that will permit direct outward flow of the tank's content to the surface should be securely locked in the closed position when in non-operating or non-standby status.

(iii) The starter control on all oil pumps should be locked in the "off" position or located at a site accessible only to authorized personnel when the pumps are in a non-operating or non-standby status.

(iv) The loading/unloading connections of oil pipelines should be securely capped or blank-flanged when not in service or standby service for an extended time. This security practice should also apply to pipelines that are emptied of liquid content either by draining or by inert gas pressure.

(v) Facility lighting should be commensurate with the type and location of the facility. Consideration should be given to: (A) Discovery of spills occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.) and (B) prevention of spills occurring through acts of vandalism.

(10) *Personnel, training and spill prevention procedures.* (i) Owners or operators are responsible for properly instructing their personnel in the operation and maintenance of equipment to prevent the discharges of oil and applicable pollution control laws, rules and regulations.

(ii) Each applicable facility should have a designated person who is accountable for oil spill prevention and who reports to line management.

(iii) Owners or operators should schedule and conduct spill prevention briefings for their operating personnel at intervals frequent enough to assure adequate understanding of the SPCC Plan for that facility. Such briefings should highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures.

APPENDIX—MEMORANDUM OF UNDERSTANDING BETWEEN THE SECRETARY OF TRANSPORTATION AND THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

SECTION II—DEFINITIONS

The Environmental Protection Agency and the Department of Transportation agree that for the purposes of Executive Order 11548, the term:

(1) "Non-transportation-related onshore and offshore facilities" means:

(A) Fixed onshore and offshore oil well drilling facilities including all equipment and appurtenances related thereto used in drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(B) Mobile onshore and offshore oil well drilling platforms, barges, trucks, or other mobile facilities including all equipment and appurtenances related thereto when such mobile facilities are fixed in position for the purpose of drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(C) Fixed onshore and offshore oil production structures, platforms, derricks, and rigs including all equipment and appurtenances related thereto, as well as completed wells and the wellhead separators, oil separators, and storage facilities used in the production of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(D) Mobile onshore and offshore oil production facilities including all equipment and appurtenances related thereto as well as completed wells and wellhead equipment, piping from wellheads to oil separators, oil separators, and storage facilities used in the production of oil when such mobile facilities are fixed in position for the purpose of oil production operations, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(E) Oil refining facilities including all equipment and appurtenances related thereto as well as in-plant processing units, storage units, piping, drainage systems and waste treatment units used in the refining of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(F) Oil storage facilities including all equipment and appurtenances related thereto as well as fixed bulk plant storage, terminal oil storage facilities, consumer storage, pumps and drainage systems used in the storage of oil, but excluding inline or breakout storage tanks needed for the continuous operation of a pipeline system and any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(G) Industrial, commercial, agricultural or public facilities which use and store oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(H) Waste treatment facilities including in-plant pipelines, effluent discharge lines, and storage tanks, but excluding waste treatment facilities located on vessels and terminal storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels and associated systems used for off-loading vessels.

(I) Loading racks, transfer hoses, loading arms and other equipment which are appurtenant to a nontransportation-related facility or terminal facility and which are used to transfer oil in bulk to or from highway vehicles or railroad cars.

(J) Highway vehicles and railroad cars which are used for the transport of oil exclusively within the confines of a nontransportation-related facility and which are not intended to transport oil in interstate or intrastate commerce.

(K) Pipeline systems which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce, but excluding pipeline systems used to transfer oil in bulk to or from a vessel.

(2) "Transportation-related onshore and offshore facilities" means:

(A) Onshore and offshore terminal facilities including transfer hoses, loading arms and other equipment and appurtenances used for the purpose of handling or transferring oil in bulk to or from a vessel as well as storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels, but excluding terminal waste treatment facilities and terminal oil storage facilities.

(B) Transfer hoses, loading arms and other equipment appurtenant to a nontransportation-related facility which is used to transfer oil in bulk to or from a vessel.

(C) Interstate and intrastate onshore and offshore pipeline systems including pumps and appurtenances related thereto as well as in-line or breakout storage tanks needed for the continuous operation of a pipeline system, and pipelines from onshore and offshore oil production facilities, but excluding onshore and offshore piping from wellheads to oil separators and pipelines which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce or to transfer oil in bulk to or from a vessel.

(D) Highway vehicles and railroad cars which are used for the transport of oil in interstate or intrastate commerce and the equipment and appurtenances related thereto, and equipment used for the fueling of locomotive units, as well as the rights-of-way on which they operate. Excluded are highway vehicles and railroad cars and motive power used exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended for use in interstate or intrastate commerce.

PART 113—LIABILITY LIMITS FOR SMALL ONSHORE STORAGE FACILITIES

Subpart A—Oil Storage Facilities

Sec.

113.1 Purpose.
113.2 Applicability.
113.3 Definitions.
113.4 Size classes and associated liability limits for fixed onshore oil storage facilities, 1,000 barrels or less capacity.
113.5 Exclusions.
113.6 Effect on other laws.

AUTHORITY: Sec. 311(f)(2), 86 Stat. 867 (33 U.S.C. 1251 (1972)).

SOURCE: 38 FR 25440, Sept. 13, 1973, unless otherwise noted.

Subpart A—Oil Storage Facilities

§ 113.1 Purpose.

This subpart establishes size classifications and associated liability limits for small onshore oil storage facilities with fixed capacity of 1,000 barrels or less.

APPENDIX B

Monthly Inventory Reconciliation Form

Monthly Inventory Reconciliation

Facility Name: _____ **Address:** _____
Tank #: _____ **Size:** _____ **Product:** _____ **Month/Year:** _____

Day	1 Previous Day's Stick Reading	2 Deliveries (fuel)	3 Meter Reading	4 Calculated Inventory (Column 1+2-3)	5 Current days Stick Reading	6 Actual Variation (subtract col 4 from col 5)	7 Suction Line Check	8 Inches Water
	Gallons	Gallons	Gallons	Gallons	Gallons	(+ or -) Gallons	(✓)	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
	TOTAL							

Required Monthly Calculations:

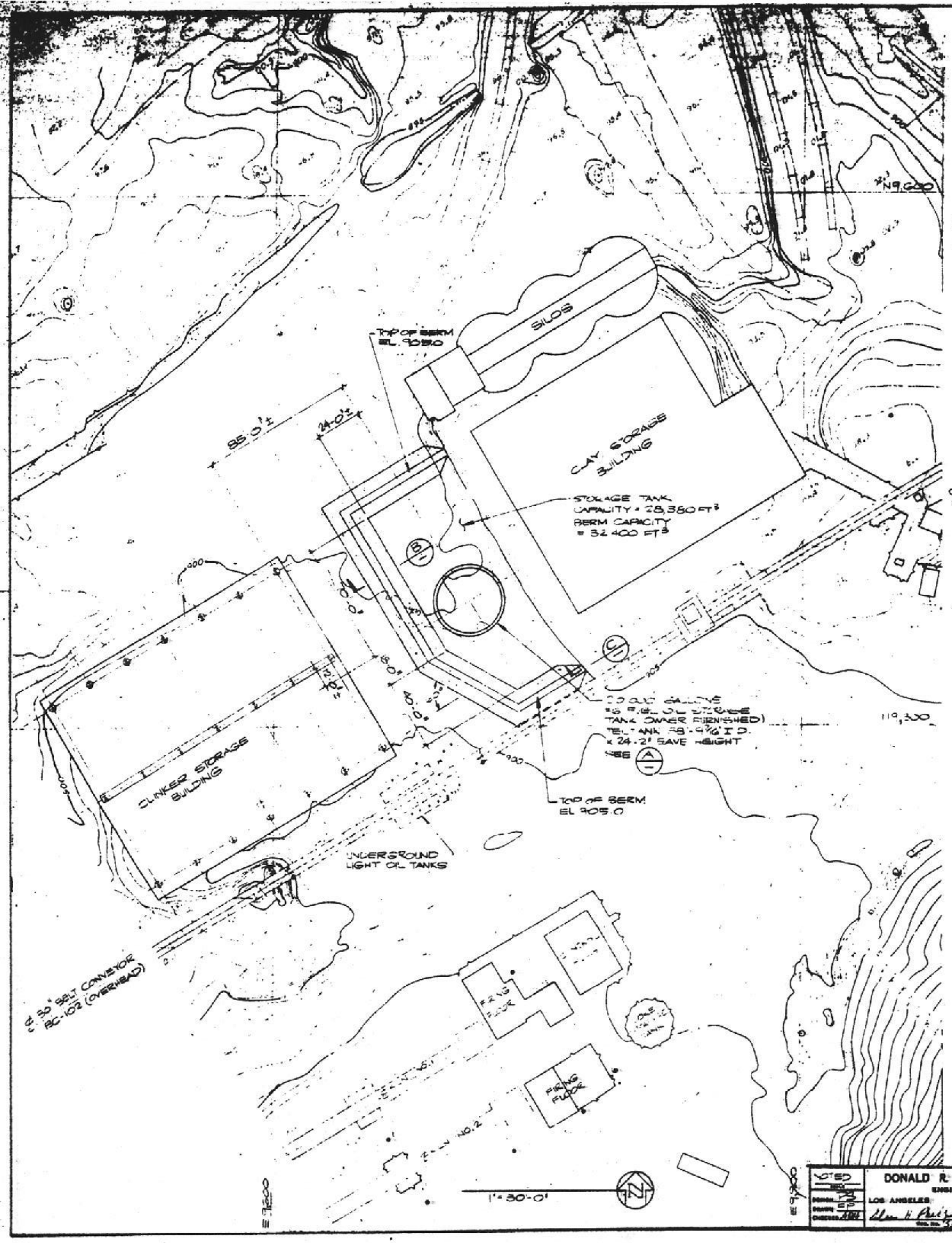
Allowable Variation: Total of Column 2 _____ X 0.01 _____ + 130 = _____ Gallons

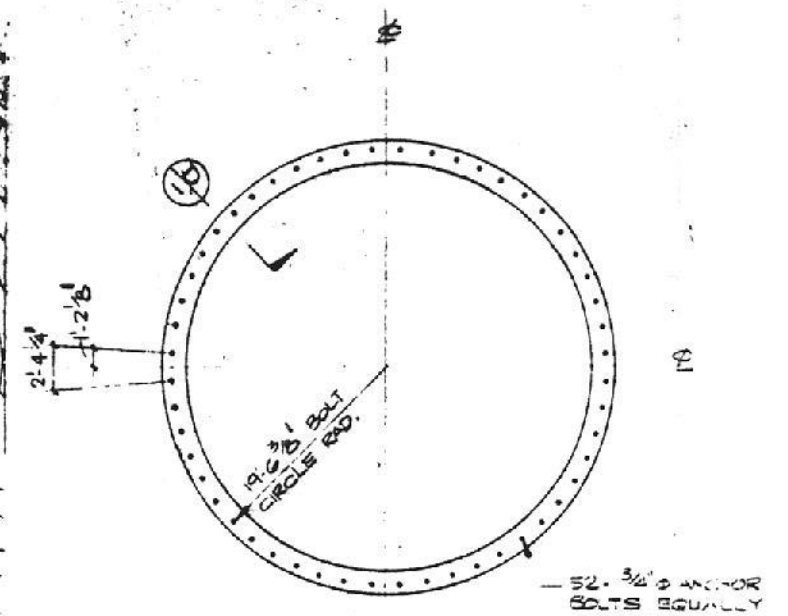
Actual Variation: Total of Column 6 = _____ Gallons

If the actual monthly variation (+ or -) is greater than the allowable variation then contact the Hazardous Materials Management Division or the appropriate Health Agency at ( )_____

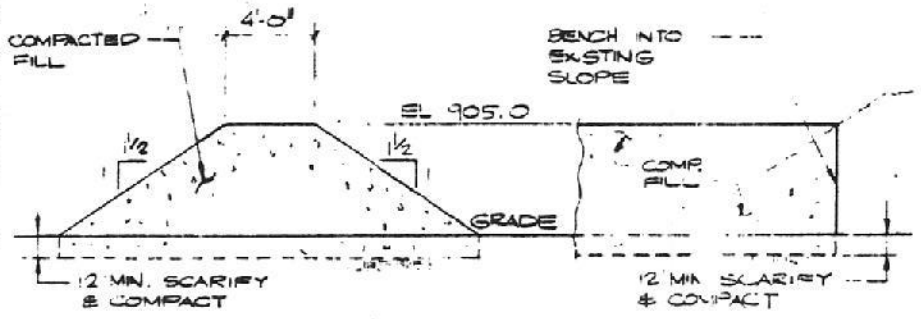
Signature of Owner) Operator: _____

G-1245



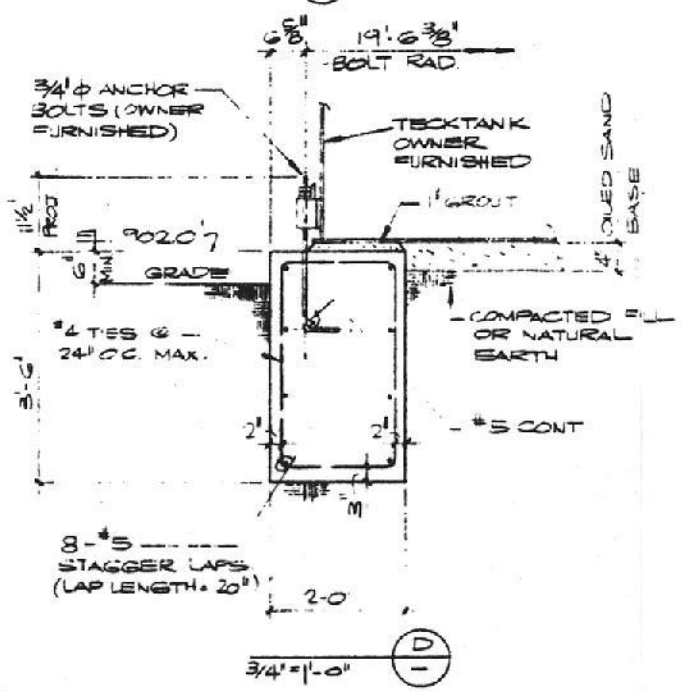


TANK FOUNDATION PLAN (A/—)
1/8" = 1'-0"



1/4" = 1'-0" (B/—)

1/4" = 1'-0" (C/—)



¾" = 1'-0" (D/—)

GENERAL NOTES

1. CONCRETE [illegible] f'c = 3000 PSI.
2. REINFORCING STEEL SHALL CONFORM WITH [illegible] DEFORMED, GRADE 40, EXCEPT THAT [illegible] GRADE 40.
3. SAND BASE FOR OIL STORAGE TANK SHALL BE [illegible] FREE FROM CORROSIVE ELEMENTS. OIL AND SAND SHALL BE THOROUGHLY MIXED EITHER IN A CONCRETE MIXER OR BY WINDROWING ONLY. SUFFICIENT OIL SHOULD BE USED TO THOROUGHLY WET THE SAND.
4. TOLERANCE ON CONCRETE RING WALL UPPER SURFACE SHALL BE LEVEL WITHIN ±1/8 IN. ERRANT 30 FT. CIRCUMFERENCE. THE LEVELNESS OF THE CIRCUMFERENCE SHALL NOT VARY BY MORE THAN ±1/4 IN. FROM AN ESTABLISHED PLANE. THE TOLERANCE ON POURED CONCRETE BEFORE GROUTING SHALL BE ±1 IN.

GRADING NOTES

1. COMPACTION - 90% MAXIMUM LAB DENSITY PER ASTM D1557 AT OPTIMUM MOISTURE ±2%.
2. OBTAIN FULL COMPACTION TO SURFACE OF BERM EITHER BY SLOPE ROLLING TO FINISH GRADE OR OVERFILLING AND CUTTING BACK.
3. CONSTRUCT BERM OF SAND-CLAY OR SAND-SILT-CLAY MIXTURE HAVING SUFFICIENT FINES TO PRODUCE AN IMPERVIOUS BERM AND SERVE AS BINDER FOR THE SOIL MATRIX. LIMIT COARSE AGGREGATE TO STONES SMALLER THAN 3 IN. IN MAXIMUM DIMENSION AND LESS THAN 10% OF THE BERM FILL. AVOID FAT CLAY SUBJECT TO EXCESSIVE CRACKING WHEN DRY.
4. COVER SURFACE OF BERM WITH 3 IN. LAYER OF CRUSHED STONE. 1-1/2 IN. MAXIMUM SIZE AND 3/8 IN. MINIMUM SIZE STONE.
5. CONDUCT ALL GRADING AND FOUNDATION PREPARATION UNDER INSPECTION BY A SOILS ENGINEER.

NOTED	DONALD R. WARREN CO. ENGINEERS	54-162	GIFFORD - HILL & CO. - INC. PLANT: CRESTMORE
DESIGN	LOS ANGELES CALIFORNIA	JOB NO.	WHITE PLANT FUEL OIL SYSTEM GRADING PLAN
DRAWN	Wm. H. Pharis 12/28/54	DRAWING NO.	DRAWING NO. 1600M-96
CHECKED	DATE		

REVISIONS | DATE

RIVERSIDE DIVISION — AMERICAN CEMENT CORP., 1500 RUBIDOUX BLVD., P.O. BOX 832, RIVERSIDE, CALIF. 92502 • (714) 683-3680

August 1, 1973

Mr. James W. Anderson
Executive Officer
California Regional Water Quality Control Board
Santa Ana Region
6848 Magnolia Avenue
Suite 4
Riverside, California 92502

AUG - 2 1973
SANTA ANA REGION

Dear Sir:

The Plant waste water was resampled on July 26th. This sample contained .05 PPM of Hexavalent Chromium. Certificate of Analysis is enclosed.

In checking into why the Chromate was unusually high in the first sample, it was found that a pump failure caused treated cooling water to be dumped into the ditch during the sampling period.

To prevent this from happening in the future, we will install a standby pump to take over should the circulating pump fail. We will change our water treatment in cooling water to reduce or eliminate, if possible, the use of Chromate.

We are most desirous of maintaining the quality of our waste water well within acceptable limits.

Sincerely,

E. M. Shull

Elton M. Shull
Supervisor of Quality

EMS:jg

cc: R. H. Biggs
C. W. Bush
J. L. Hendrickson

...AL CONSULTANTS
...WATER LABORATORY

...ZONE 684-1681
AREA CODE 714

LABORATORIES
3219 CHICAGO AVE

ESTABLISHED 1906

EDWARD S. BABCOCK & SONS

P. O. BOX 432
RIVERSIDE, CALIFORNIA 92502

TO RIVERSIDE CEMENT CO.- Crestmore
Box 832
Riverside, CA

SAMPLE MARKED Crestmore Waste Water 7/2/73

July 18, 1973

Laboratory No. 730709-36

Cations		Milligrams per liter (ppm)	Milli equivalents per liter	Anions		Milligrams per liter (ppm)	Milli equivalent per lite
Calcium	(Ca)	68	3.40	Alkalinity as			
Magnesium	(Mg)	10	0.80	Hydroxide	(OH)	0	--
Sodium	(Na)	32	1.39	Carbonate	(CO_3)	0	--
Potassium	(K)	3	0.08	Bicarbonate	(HCO_3)	171	2.80
Ammonium	(NH_4)			Sulfate	(SO_4)	62	1.29
				Chloride	(Cl)	36	1.01
				Nitrate	(NO_3)	33	0.53
				Phosphate	(PO_4)		
			567				563

		Milligrams per lite (ppm)
Conductivity, ECx10^6 @ 25 ° C.	575	
Percent Sodium	--	
Hydrogen-ion activity (pH)	7.8	
Color		
Odor		
Turbidity		
Total Hardness calculated as $CaCO_3$		210
Total Dissolved Residue (180° C)		320
Suspended residue		
Fluoride	(F)	40
Boron	(B)	0.5
Iron	(Fe)	0.1
Manganese	(Mn)	
Phenols		0.0
Hexavalent Chromium	(Cr^{+6})	0.5

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
JUL 25 1973
SANTA ANA REGION

Avg Flow 2nd Qtr. 1973
1175 gal/min

Edward S. Babcock & Sons

Riverside Cement Company

Environmental Office:
1490 Rubidoux Boulevard • Riverside, California 92509
Mailing Address: P.O. Box 56040 • Riverside, California 92517

Phone: (909) 683-6458
Phone: (909) 683-3660, ext. 405
Fax/Voice Mail: (909) 686-5703

June 6, 1994

bcc: L Kirkbernick w/enc
J. Smith "
P. Cafferty "

California Regional Water Quality Control Board
Santa Ana Region
2010 Iowa Avenue, Suite 100
Riverside, CA 92507

Attn: Glenn S. Robertson

Subject: Expanded Closure Plan Details for Riverside Cement Company's Boiler Blowdown Pond

Dear Mr. Robertson:

We are enclosing the finalized details for Riverside Cement Company's Boiler Blowdown Pond Closure Plan. This is an expansion of the earlier report sent to you August 13, 1991; You had requested this addendum in your visit to the plant on August 25, 1992. This information should supply you with all of the details needed to show a good closure plan for the Boiler Blowdown Pond.

During your August 25, 1992 visit, you and Dixie Lass commented that the Cement Kiln Dust disposal area closure was fairly straight forward and that the existing dirt coverage for vegetation propagation would be satisfactory. This area has now been closed for four years (August, 1990); therefore, Riverside Cement would like to have your concurrence of closure of the Cement Kiln Dust Disposal Area.

We look forward to answering any questions you may have on either closure for the Boiler Blowdown Pond or the Cement Kiln Dust Disposal Area. We look forward to your concurrence on these closure plans in the near future.

Sincerely,

Eugene M. Kulesza
Manager of Regulatory Matters

EMK/bs

Enclosures

cc: Pat Hill, w/enclosures
SARWQCB.694

July 27, 1973

Riverside Cement Company
Box 832
Riverside, CA 92502

Attention: Plant Superintendent

This will acknowledge receipt of your July 1973 wastewater analysis which was submitted in conformance with this Board's waste discharge requirements for your Crestmore operations.

The value of hexavalent chromium shown in this analysis 0.55 mg/l, is excessive and must be explained. If a re-sample indicates any significant chromate your waste discharge operations must be promptly reviewed and the source of chromate eliminated.

Please provide your comments regarding the above prior to August 2, 1973.

JAMES W. ANDERSON
Executive Officer

COPY

RWQCB 7/27/73

Santa Ana Regional Water Pollution Control Board

RESOLUTION 60-17

PRESCRIBING REQUIREMENTS FOR THE DISPOSAL OF INDUSTRIAL WASTES ONLY BY THE RIVERSIDE CEMENT COMPANY CRESTMORE

Rescinded by Order No. 76-78

WHEREAS, on August 13, 1959 the Riverside Cement Company in compliance with Section 13054, Water Code, State of California, filed with this Board a Report on Waste Discharge wherein it is proposed to discharge untreated industrial waste into the North Riverside and Jurupa Canal or into a gravel pit for percolation; and

WHEREAS, this Board has caused the following investigations and actions with respect to the aforesaid proposal to be made: (1) Field investigations and office studies have been conducted by the staff of this Board and consultations were held between the staff and representatives of the Riverside Cement Company. (2) Technical assistance and recommendations were requested in writing from interested official agencies and the following have been received and considered: Memorandum dated December 21, 1959 from the State Department of Fish & Game; Joint letter dated January 14, 1960 from the Riverside County Health Department and the State Department of Public Health; Memorandum dated February 2, 1960 from the Department of Water Resources; and

WHEREAS, based on the foregoing this Board finds that: (1) The gravel pit disposal site is located in the NE 1/4 of the NE 1/4 of Section 10, Township 2 S, Range 5 W, S. B. B. & M. (2) The disposal site is located in the Riverside Ground Water Basin and is underlain by older alluvium containing sand, silt, and clay. These materials are porous and permeable and will transmit fluids to the ground waters. (3) The ground water depth is estimated to be 60 feet beneath the ground surface at the site with the ground water movement in a westerly direction. (4) Ground waters downstream from the disposal site are beneficially used for domestic and agricultural purposes. Ground water quality is acceptable for prevailing beneficial uses. (5) Estimated quantity of discharge is 600 gallons per minute, approximately 90% of which is discharged into the North Riverside and Jurupa Canal for use as irrigation water. (6) Quality of discharge is: Total dissolved solids 490 milligrams per liter; sodium 45 milligrams per liter; chlorides 84 milligrams per liter; nitrates 30 milligrams per liter; hardness 239 milligrams per liter. (7) On May 9, 1960 letters were forwarded to the Riverside Cement Company and to other interested agencies and to all persons known or believed to have an official interest in the aforesaid discharge stating the above findings and forwarding tentative requirements for the aforesaid discharge of waste. (8) Said tentative requirements, forwarded as described above, are identical with the requirements prescribed hereinafter; and

WHEREAS, on October 17, 1952, this Board adopted a policy statement which reads in part "water quality objectives for all surface streams, underground water basins, the ocean, its bays and tide water areas, will be formulated from time to time"; and

WHEREAS, on February 25, 1960 this Board adopted Resolution 59-10 which resolution establishes water quality objectives for the Arlington Riverside Basins.

NOW THEREFORE BE IT RESOLVED that in order to prevent unreasonable impairment in quality of the ground water in the Arlington Riverside Basin for the aforesaid beneficial uses and of the quality of surface or underground water to which that basin is tributary and in accordance with the authority granted this Board by Division 7 of the aforesaid Water Code, this Board hereby prescribes the following requirements with respect to the aforesaid discharge of waste by the Riverside Cement Company, Crestmore, subject to the provisions of Section 13054 of the aforesaid Water Code, which reads in part that "requirements may be revised from time to time":

(1) The discharge shall not cause the concentration of any below named substances in the ground water to exceed the values listed:

Total dissolved solids (by evaporation)	700	mg/l
Total hardness (as $CaCO_3$)	350	mg/l
Chlorides	125	mg/l
Bicarbonate	300	mg/l
Nitrates	44	mg/l
Boron	0.4	mg/l
Fluoride	0.9	mg/l
Hexavalent chromium	0.05	mg/l
Arsenic	0.05	mg/l
Selenium	0.05	mg/l
Lead	0.1	mg/l
Phenolic compounds	0.001	mg/l
Sodium per cent	45	

(2) The discharge shall not cause an increase in concentration of any below named substance in the receiving water over that normally found in adjacent ground water unaffected by sewage or industrial waste:

Total dissolved solids (by evaporation)	250	mg/l
Total hardness (as $CaCO_3$)	50	mg/l
Chlorides	40	mg/l
Bicarbonate	100	mg/l
Boron	0.1	mg/l
Fluoride	0.2	mg/l
Tastes and odors	None	
Sodium per cent	20	

(3) The discharge shall be handled in a manner to prevent unsightliness and odor nuisances.

(4) The discharge shall not cause toxic concentrations of any substance in the receiving waters.

BE IT FURTHER RESOLVED that in accordance with Section 13055, of the aforesaid Water Code, technical reports of the quality and quantity of the waste discharged at the disposal site shall be submitted to this Board in accordance with

17

specifications appearing in Exhibit "A" to this resolution, which specifications the staff of this Board is authorized to revise, whenever necessary, and such revision being subject to review by this Board at the request of the Riverside Cement Company, Crestmore; and

BE IT FURTHER RESOLVED that compliance with the foregoing requirements shall be based on:

(1) Periodic analyses of samples of water from the North Riverside and Jurupa Canal downstream from the Riverside Cement Company point of discharge and from the water supplied to the plant will be checked for meeting the conditions in requirement (2) regarding the incremental increases.
OR

(2) The effluent from the plant in itself has been found to be of high chemical quality meeting the objectives adopted by the Board for the Arlington-Riverside Ground Water Basin as stated in requirement (1). As long as the quality of the discharge is equal to or less than the concentrations set in requirement (1) no additional analyses of receiving water need be made.

BE IT FURTHER RESOLVED that the Riverside Cement Company, Crestmore, be notified that: (1) The requirements herein prescribed are predicated on the terms of the aforesaid Report on Waste Discharge, that is, that the aforesaid waste shall be discharged to the therein described location, and not elsewhere, and in the therein described manner. (2) Any proposed change in the point or method of disposal of waste or significant change in the character of waste shall be promptly reported to this Board; and

BE IT FURTHER RESOLVED that a certified copy of this resolution be forwarded by mail to an authorized officer of the Riverside Cement Company, Crestmore and to such other agencies and persons who may have need therefor or who may request same.

I, Raymond V. Stone, Jr., hereby certify that the foregoing is a true and correct copy of a resolution adopted by the Santa Ana Regional Water Pollution Control Board, State of California, at a regular meeting held on June 3, 1960.

Raymond V. Stone, Jr.
Executive Officer

Revised 10-11-74

Exhibit "A"

RESOLUTION 60-17

Specifications for Technical Reports to be Submitted by the Riverside Cement Company, Crestmore

1. A sample of the effluent shall be taken on the first working day of January, April, July and October.

2. The above sample shall be taken at the point of diversion to the canal or gravel pit and shall be collected continuously in proportion to flow over a 24-hour period or composited in proportion to flow from individual samples collected at intervals of one hour or less for a period of 24 hours.

3. The following determinations shall be made in accordance with standard methods on the samples so taken: total dissolved solids (by evaporation), calcium, magnesium, sodium, sulfate, carbonate, bicarbonate, nitrate, chloride, boron, fluoride, and pH.

4. The following determinations shall be made annually on the sample taken in July, in addition to the determinations called for in paragraph 3, in accordance with standard methods on the sample so taken: phenolic compounds and hexavalent chromium.

5. Monthly records of flow are to be maintained and submitted to the Board on a quarterly basis. Included in the above will be all dates that flow was diverted to the gravel pit. All of the above reports must be received by this Board within 30 days of the above sampling dates.

17

California Regional Water Quality Control Board
Santa Ana Region

Exhibit "A"

Resolution 60-17

Monitoring and Reporting Program
for
Riverside Cement Company, Crestmore

Effluent Monitoring

A sampling station shall be established for each point of discharge and shall be located where representative samples of that effluent can be obtained. The following shall constitute the effluent monitoring program:

Constituents	Units	Type of Sample	Minimum Frequency of Analysis
Sodium	mg/l	Composite	Quarterly
Potassium	"	"	"
Calcium	"	"	"
Magnesium	"	"	"
Total Hardness	"	"	"
Ammonium	"	"	"
Sulfate	"	"	"
Chloride	"	"	"
Bicarbonate	"	"	"
Carbonate	"	"	"
Nitrate	"	"	"
Fluoride	"	"	"
Boron	"	"	"
pH	pH units	"	"
Electrical Conductivity	micromhos/cm	"	"
Phenolic Compounds	mg/l	"	Yearly in July
Hexavalent Chromium	"	"	" " "

1. Quarterly samples shall be collected on the fifth working day of January, April, July, and October.

2. Monthly records of flow are to be maintained and submitted to the board on a quarterly basis. Included in the above will be all dates that flow was diverted to the gravel pit. All of the above reports must be received by this board within 30 days of the above sampling dates.

3. The above sample shall be taken at the point of diversion to the canal or gravel pit and shall be collected continuously in proportion to flow over a 24-hour period or composited in proportion to flow

17

from individual samples collected at intervals of one hour or less for a period of 24 hours.

Reporting

Monitoring reports shall be submitted by the fourth Monday of January, April, July, and October.

All reports shall be signed by a responsible officer of Riverside Cement Company and submitted under penalty of perjury.

Ordered by James W. Anderson
JAMES W. ANDERSON
Executive Officer

October 11, 1974

17

ORDER NO. 75-28

Waste Discharge Requirements
for
Riverside Cement Company
Riverside County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board), finds that:

1. The Riverside Cement Company (hereinafter discharger) presently discharges industrial wastes under requirements issued by this Board in Resolution No. 60-17 on June 3, 1960.

2. The discharger presently discharges the following wastes in Section 3, T2S, R5W, SBB&M:

   a. 1.75 MGD (6,600 m^3/day) of industrial wastes pumped from the company's mine to the West Riverside Canal;

   b. 5,000 GPD (19 m^3/day) of sanitary wastes to septic tanks and subsurface leaching; and,

   c. 5,000 gallons per month (19 m^3/month) of saline boiler blowdown and water softener regeneration wastes to an impervious facility.

3. A Water Quality Control Plan was adopted by the Regional Board on April 11, 1975. The Plan contains water quality objectives and beneficial uses of waters in the Santa Ana Region.

4. The discharge is in the Riverside Groundwater Basin, where the beneficial uses of water include:

   a. Municipal and domestic supply,
   b. Agricultural supply,
   c. Industrial process supply,
   d. Industrial service supply.

5. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements.

6. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger shall comply with the following:

A. Discharge Requirements

1. The industrial wastes as described in Finding 2.a., above, shall meet the following limitations:

Therefore, a time schedule to comply with the total chromium limitation by July 1, 1977, is also included in this order.

This order also contains incremental limitations to assure that there are no unreasonable increases in these constituents above the water supplies.

Compliance with these requirements should be adequate to protect the beneficial uses of the Riverside Groundwater Basin.

RECOMMENDATION:

Adopt Order No. 76-78 as presented.

California Regional Water Quality Control Board
Santa Ana Region

ORDER NO. 78-27

Waste Discharge Requirements
for
Riverside Cement Company
Riverside County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board), finds that:

1. On July 9, 1976, the Board adopted Order No. 76-78, which prescribes requirements for the discharge of industrial and sanitary wastes from Riverside Cement Company (hereinafter discharger).

2. Order No. 76-78, as amended, prohibits the discharge of sanitary wastes to septic tank-subsurface disposal systems after July 1, 1978.

3. To eliminate the discharge to septic tanks, the discharger has proposed to treat the sanitary wastes by a package biological treatment plant prior to discharging to subsurface disposal systems. Due to equipment delivery problems, the treatment plant will not be operational until approximately June 30, 1978.

4. The discharger filed a revised report of waste discharge, dated November 4, 1977, for this proposed material change in the discharge.

5. The discharger proposes to discharge approximately 13,000 gallons per day (49 m^3/day) of treated sanitary wastes to a subsurface disposal system.

6. The discharger discharges the following industrial wastes:

   a. 1.75 MGD (6,600 m^3/day) of industrial wastes pumped from the company's limestone mine to the West Riverside Canal;

   b. 5,000 gallons per month (19 m^3/month) of highly mineralized boiler blowdown and water softener regeneration wastes to an impervious facility.

7. A Water Quality Control Plan was adopted by the Board on April 11, 1975. The Plan contains water quality objectives and beneficial uses of waters in the Santa Ana Region.

8. The discharges are tributary to the Riverside Groundwater Subbasin, the beneficial uses of which include:

a. Municipal and domestic supply,
b. Agricultural supply,
c. Industrial process supply,
d. Industrial service supply.

9. These requirements are necessary to implement the Water Quality Control Plan.

10. These waste discharge requirements provide only minor revisions to the requirements which have been previously adopted for an existing facility and, as such, are exempt from the provisions of the California Environmental Quality Act (Public Resources Code 21000 et seq.) in accordance with Section 15101, Chapter 3, Title 14, California Administrative Code.

11. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements.

12. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger shall comply with the following:

A. Discharge Specifications

1. a. The discharge of either industrial or sanitary wastes in excess of the following limits is prohibited:

Constituent	Average Concentration
Filtrable Residue	600 mg/l
Sodium	70 "
Chloride	90 "
Sulfate	105 "
Boron	0.5 "
Fluoride	1.0 "
Total Chromium	0.05 "
Phenolic Material	0.01 "

1. b. The discharge of either industrial or sanitary wastes shall not contain concentrations of any of the below named constituents which exceed the concentration of the same constituent in the water supply by more that the following values:

Constituent	Average Increment
Filtrable Residue	230 mg/l
Chloride	55 "

For Discharge Specifications 1.a. and 1.b., whichever limitation results in the lower concentration shall be controlling.

1. c. The discharge of sanitary wastes in excess of the following limits is prohibited:

Constituent	Average Concentration
BOD	30 mg/l
Suspended Solids	30 "
Ammonia	15 "

2. The discharge of highly mineralized wastes, such as water treatment brines and boiler blowdown, to waters of the State is prohibited.

3. The discharge to any saline waste storage facility which has less than 12 inches (31 cm) of freeboard is prohibited.

B. Provisions

1. The discharger shall comply with Monitoring and Reporting Program No. 78-27.

2. This order includes the "General Monitoring and Reporting Provisions."

3. Neither the treatment nor the discharge of wastes shall cause a nuisance or a pollution, as defined in the California Water Code.

4. The discharge of treated sanitary wastes shall be maintained below the surface of the ground.

5. Compliance with Discharge Specifications A.1.a., A.1.b., and A.1.c. shall be based on the arithmetic average of the last three (3) consecutive samples.

6. The use of septic tank-subsurface disposal systems for the discharge of sanitary wastes is prohibited after July 1, 1978.

7. The discharger shall comply with the following time schedule to assure compliance with Discharge Specification A.1.c.:

Task	Completion Date	Report of Compliance Due
Status Report	4/1/78	4/15/78
Full Compliance	7/1/78	7/15/78

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION
2010 IOWA AVENUE, SUITE 100
RIVERSIDE, CA 92507-2409
PHONE: (909) 782-4130
FAX: (909) 781-6288

July 6, 1994

Daniel L. Wong, Site Leader
Bechtel Environmental , Inc.
P.O. Box 193965
San Francisco, CA 94119-3965

RIVERSIDE CEMENT CO.

Dear Mr. Wong:

I have received your June 22, 1994 letter and attached draft contact report concerning our May 31, 1994 telephone conversation. It should be noted that Santa Ana Regional Water Quality Control Board staff is not currently considering increasing its activity at this site. I have modified the draft contact report accordingly, which I have signed and enclosed.

In addition to its regulation of the site's waste water treatment plant, Board staff is also currently involved with closure of a former brine evaporation pond and with above-ground storage tank (AGT) containment and soil contamination issues at the facility.

If you have any questions concerning the brine pond or AGT, please contact Dixie B. Lass, chief of the Board's Land Disposal Section, at (909) 782-3295. Other questions should be directed to me at (909) 782-3234.

Sincerely,

Mark G. Adelson

Mark G. Adelson, Chief
Surveillance and Enforcement Section

enclosure
MGA/rivcmnt/14

CONTACT REPORT

AGENCY/AFFILIATION: Regional Water Quality Control Board (RWQCB)		CODE:
DEPARTMENT: Surveillance and Enforcement Section		
ADDRESS: 2010 Iowa Ave., Suite 100	CITY: Riverside	
COUNTY: Riverside	STATE: CA	ZIP: 92507-2409
CONTACT(S) Mark Adelson	TITLE Section Chief	PHONE (909) 782-4130
BEI PERSON MAKING CONTACT: Daniel L. Wong DLW		DATE: 5/31/94
SUBJECT: Regulatory Involvement		
SITE NAME: Riverside Cement Co.	EPA ID: CAD 063844443	

DISCUSSION:

Mr. Adelson stated that the RWQCB ~~has no intention of~~ is not currently considering increasing its involvement with the Riverside Cement Co. site. Currently, the site permit to discharge water from its wastewater treatment plant is the primary focus of the RWQCB.

Mr. Adelson knows of environmental reports that have been generated for the Jensen Quarry, a plant formerly operated by the Riverside Cement Co. However, these reports did not cite concerns to prompt any RWQCB action.

CONTACT CONCURRENCE: Mark G. Adelson DATE: 7-5-94

Cc - Paper Only to D. Smith
WNETC 6/30
Dennis, Pls Prepare Another
Memo Capturing All Costs Assoc
iated w/ This Project. Incld
Dennis Miller Cost - Dennis Diet
Disposal @ $1.88/TN Handling
costs Etc. - Prepare To Be, Thx
Substantiate Via CC's of P.O.'s. G

File
ORIG

Riverside Cement Company

INTER-OFFICE CORRESPONDENCE

June 22, 1995

TO: B. McCormick
F. Sheets

FROM: G. Kulesza

SUBJECT: Crestmore Brine Pond Closure

After a long of long and hard work by Crestmore Plant personnel, this area has received a closure, according to the letter attached from California Regional Water Quality Control Board, Santa Ana Region's Ann Sturdivant. You may have already received this, but wanted to make sure you had this information.

We are still awaiting closure notification of the Crestmore kiln dust dump from Ms. Sturdivant.

EMK/bs

cc: P. Hill
D. Smith

CRWQBRPD.695

STATE OF CALIFORNIA - CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, *Governor*

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION
2010 IOWA AVENUE, SUITE 100
RIVERSIDE, CA 92507-2409
PHONE: (909) 782-4130
FAX: (909) 781-6288

June 15, 1995

Mr. Dennis Smith
Riverside Cement Company
1500 Rubidoux Boulevard
P. O. Box 832
Riverside, CA 92502

APPROVAL OF CLOSURE REPORT AND CERTIFICATION OF CLOSURE, BOILER BLOWDOWN DISPOSAL POND, LOCATED AT: RIVERSIDE CEMENT COMPANY, 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CALIFORNIA

Dear Mr. Smith:

The closure report for the former boiler blowdown disposal pond at the above-referenced Riverside Cement Company facility is hereby approved. Closure of the former pond is complete.

The former pond area now serves as a lined, secondary containment basin for the aboveground storage tank containing fuel oil for the cement kilns. Our staff will continue to conduct routine inspections of the aboveground tank, its appurtenances, and the secondary containment area.

As a reminder, you are required to submit a revised Spill Prevention Control and Countermeasure Plan (SPCC) for the aboveground storage tank. The location of the dewatering sump should be shown on the map in the SPCC, and you must include a description of the sump clean-out procedures to be implemented in the event of a spill or leak.

Thank you for your cooperation throughout the closure project. If you have any questions or comments regarding this letter, you may contact me at (909) 782-4904.

Sincerely,

Ann E. Sturdivant

Ann E. Sturdivant
Associate Engineering Geologist

cc: Gene Kulesza/Pat Hill - Riverside Cement Co.
Fred Allison, ERM EnviroClean-West, Inc., Irvine

AES/rivcem2.let

RECEIVED
1995
G-1264
OFFICE OF REGULATORY MATTERS

STATE OF CALIFORNIA - CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

PETE WILSON, *Governor*

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION
2010 IOWA AVENUE, SUITE 100
RIVERSIDE, CA 92507-2409
PHONE: (909) 782-4130
FAX: (909) 781-6288

June 15, 1995

Mr. Dennis Smith
Riverside Cement Company
1500 Rubidoux Boulevard
P. O. Box 832
Riverside, CA 92502

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Sincerely,

Ann E. Sturdivant

Ann E. Sturdivant
Associate Engineering Geologist

cc: Gene Kulesza/Pat Hill - Riverside Cement Co.
Fred Allison, ERM EnviroClean-West, Inc., Irvine

AES/rivcem2.let

RECEIVED
1995
G-1265
OFFICE OF REGULATORY MATTERS

Approved Verbally By
A. Sturdivant To D.S.
5-16-95

Riverside Cement Company

1500 Rubidoux Boulevard • Riverside, California 92509
Mailing Address: P.O. Box 832 • Riverside, California 92502
Phone (909) 683-3660
Fax (909) 788-8099

May 12, 1995

Ms. Ann Sturdivant
California Regional Water Quality Control Board
Santa Ana Region
2010 Iowa Street, Suite 100
Riverside, CA. 92507-2409

Dear Ms. Sturdivant:

Referencing our phone conversation on May 11, 1995 I will give some detail regarding our proposal to blending the Brine Pond materials with our product.

Basically the manufacturing process for Portland cement manufacture is very forgiving, in spite of being a series of complex chemical combinations. Our proposal entails the blending of the Brine Pond soils with other ingredients indigenous to Portland cement i.e., clinker, gypsum, limestone, plant spills, etc. The spoils would be intermixed prior to the finish grinding stage of production, resulting in the chemical matrix common to our products. When used in concrete applications, this material will be encapsulated into a cementicious product which would harden upon drying, and be impervious to attack or leach ability. ONE WORD

During the logistics of performing this task, Riverside Cement would leave the covered piles where there at and haul bucket loads, as needed, to blend with our grey cement clinker. Production would record in the shift supervisor's log the number of buckets taken and date used. They ARE

Presently Riverside Cement blends in all clean-up from the plant in with our grey cement clinker. We estimate it would take two (2) months to use up the approximate 535 tons of material.

The material from the Brine Pond Project would not have a negative effect on the cements produced with its use.

This is a logical way to reuse this material and is ecologically sound as it saves landfill space.

If you have any questions, please contact me at (909) 683-3660.

Respectfully,

Dennis Smith
Storeroom Supervisor

cc: P. Hill
G. Kulesza
R. Ball

File Boiler Blow Down Closure

Riverside Cement Company

1500 Rubidoux Boulevard • Riverside, California 92509
Mailing Address: P.O. Box 832 • Riverside, California 92502

Phone (909) 683-3660
Fax (909) 788-8099

February 24, 1995

Ms. Ann Sturdivant
California Regional Water Quality Control Board
Santa Ana Region
2010 Iowa Street, Suite 100
Riverside, CA. 92507

Dear Ann:

On Thursday, February 23, 1995 when the contractor opened the crate with the liner for the containment area, he found that the manufacture had shipped a 45 mil. liner instead of a 60 mil liner, as specified by the Closure Plan.

It will take an additional 4-6 weeks to get the correct liner, as the liner is cut to size at the factory.

Rather than hold up the job for another 4-6 weeks, can we go ahead and install the 45 mil liner in place of the 60 mil liner?

An addendum to the Closure Plan would be made when we completed the project, spelling out the change and reasons for it.

We will finish putting the layer of clay in the containment area on Friday, February 24, 1995, and with your permission, could start putting the liner in the containment area and cover with 4" of sand and the specified 2" of gunnite cover material.

Please contact me regarding your thoughts relating to substituting the 45 mil liner from the 60 mil liner. You can reach me at (909) 684-7850 or Pat Hill at (909) 683-3660 ext. 268.

Sincerely,

Dennis Smith
Storeroom Supervisor

cc: P. Hill - Riverside Cement
G. Kulesza - Riverside Cement
C. McDonald - ERM West

cc - 7 Sheets
FYI
File Brine Pond Closure
1-24-95

Riverside Cement Company

3500 Rubidoux Boulevard • Riverside, California 92509
Mailing Address: P.O. Box 832 • Riverside, California 92502
Phone (909) 683-3660
Fax (909) 788-8099

cc: P. Hill
G. Kulesza
Chris McDonald - ERM West

January 24, 1995

Ms. Ann Sturdivant
California Regional Water Quality Control Board
Santa Ana Region
2010 Iowa Street, Suite 100
Riverside, CA. 92507

Dear Ann:

On January 23, 1995 we did 6 background tests. This was due to a background sample we took on January 4, 1995, Sample #5 which had a high reading of 3,500 (umhos/cm). The sample was taken approximately 300 ft. southeast of the tank berm, at the edge of the asphalt road.

The 6 samples taken for conductivity were 3 samples taken north and northeast of berm, and 3 samples taken southeast, south and southwest of the berm. Due to the concrete slab north of the berm, the lst hole (N1) was 148 ft. from berm and tested at 140 (umhos/cm), the second hole (N2) was 99 ft. from berm and tested 190 (umhos/cm), the third hole (N3) was 185 ft. northeast of berm and tested at 360 (umhos/cm).

Due to the asphalt road by the berm, the 3 samples taken were further away. The first hole (S-1) was 414 ft. southeast of the berm and tested at 220 (umhos/cm), the second hole (S-2) was 214 ft. south of berm and tested 130 (umhos/cm), and the third hole was 415 ft. southwest of the berm and tested **ND.** Note: See attached map and test results.

The test sample (#5) taken on January 4, 1995 is located between samples S-1 and S-2 taken on January 23, 1995. That area had been dug-up to replace the manifold valves for our plant well and was backfilled with sand, from our Smith Sand Quarry.

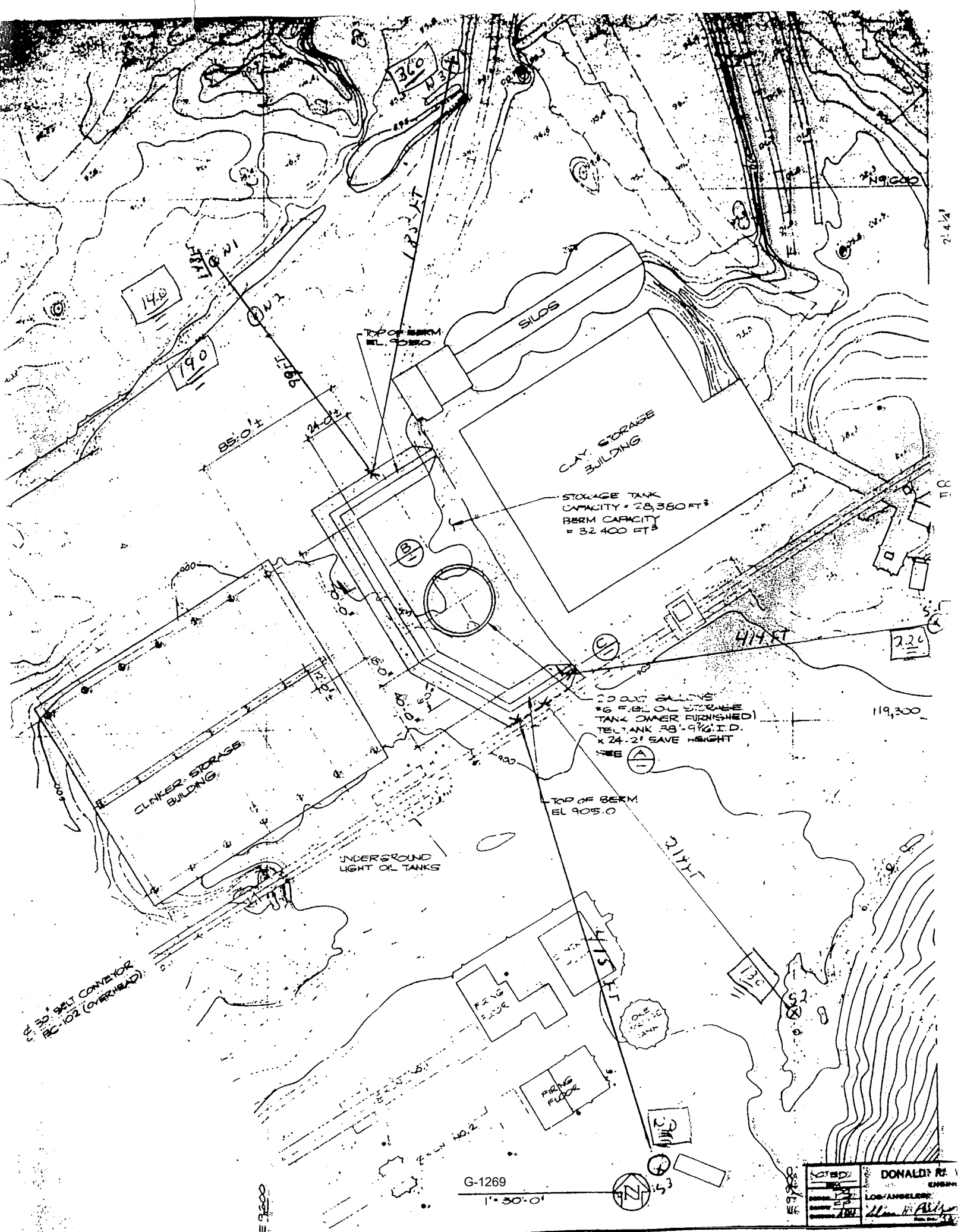
Original sampling taken on December 28, 1994 inside Brine Pond averaged 5,350 (umhos/cm) per hole. After removing soil from Brine Pond Area and finding the concrete slab, the average sampling taken on January 4, 1995 per is hole is 1,850 (umhos/cm).

In summary, based on the background sample taken on January 23, 1995 showing no contamination and with the concrete slab, we found under the Brine Pond. We would like to go ahead and cap the Brine Pond Area, rather than break through the concrete possibly contaminating the ground under the concrete.

Dennis Smith

Letter coming Re: Capping.

Dennis Smith
Storeroom Supervisor


SILOS
TOP OF BERM EL. 905.0
CLAY STORAGE BUILDING
STORAGE TANK CAPACITY = 28,350 FT³
BERM CAPACITY = 32,400 FT³
CLINKER STORAGE BUILDING
UNDERGROUND LIGHT OIL TANKS
TOP OF BERM EL 905.0
414 FT
119,300
FIRING FLOOR
FIRING FLOOR
DONALDSON
LOS ANGELES
G-1269
1"=30'-0"

CONDUCTIVITY

Laboratory I.D.: 210878
Client: ERM-WEST, INC

Matrix: Soil
Method: EPA 120.1

Laboratory I.D.	Sample I.D.	Result (umhos/cm)	Analytical Notes	Date Analyzed	QC Batch
1	N1	140		01/23/95	6063
2	N2	190		01/23/95	6063
3	N3	360		01/23/95	6063
4	S1	220		01/23/95	6063
5	S2	130		01/23/95	6063
6	S3	ND		01/23/95	6063
Method Blank		ND		01/23/95	6063
Detection Limit:		50			

Analytical Notes

Quality Control Data Summary

Method Blank,Laboratory Control Sample, Matrix Spike/Matrix Spike Duplicate Data

Batch I.D.	Sample I.D.	Spike Amount (umhos/cm)	BS %Rec.	BSD %Rec.	QC Limits	MS %Rec.	MSD %Rec.	QC Limits	Sample Result (umhos/cm)	Dup. Result (umhos/cm)	RPD	QC Limits
6063	210878-006	1375	101	101	G-1290-110	NA	NA	NA	ND	ND	<1	15

Riverside Cement Company

660 N. Diamond Bar Boulevard • Diamond Bar, California 91765 Phone (714) 861-2174
(Mailing Address: P.O. Box 4904 • Diamond Bar, California 91765)

August 13, 1991

Mark Adelson
California Regional Water Quality Control Board
Santa Ana Region
6809 Indiana Avenue, Suite 200
Riverside, CA 92506

SUBJECT: Closure Plan for the Cement Kiln Dust Disposal Area and the Boiler Blowdown Pond at the Riverside Cement Company Crestmore Facility in Riverside, California.

Dear Mr. Adelson:

We have completed a thorough study of plant areas and present the enclosed Closure Plan for the cement kiln dust (CKD) disposal area and the former boiler blowdown pond. The Closure Plan was done after careful selection by ERM-West Inc. We feel they have done a very thorough plan.

In accordance with the provisions of CAC Title 23, Chapter 3, Subchapter 15, the CLosure Plan describes the activities which will be conducted at the Crestmore facility to close the CKD disposal areas and to excavate and cover the boiler blowdown pond. The Closure Plan also describes the post-closure maintenance of the closure areas and use of the land, particularly as it applies to planned future mining and milling operations.

We look forward to discussing this closure with you in the near future. If you have any questions please call Pat Hill or myself at 714/683-3660.

Sincerely,

Gene Kulesza lm

Gene Kulesza
Manager of Regulatory Matters

Gk/lm

Enclosure

cc: Pat Hill w/enc.
Bruce Stern w/enc.

ERM-West, Inc.

Suite 260 • 1777 Botelho Drive • Walnut Creek, California 94596-5042 • (415) 946-0455 • Telefax (415) 946-9968

file w/ closure plan

April 15, 1991

Mr. Eugene Kulesza
Manager of Regulatory Matters
Riverside Cement Company
660 N. Diamond Boulevard
Diamond Bar, CA 91765

SUBJECT: Crestmore Facility - 2nd Draft of Closure Plan for Cement Kiln Dust and Boiler Blowdown Pond

Dear Gene:

Enclosed are three copies of the subject closure plan. We have incorporated Riverside Cement's and Pat Cafferty's comments. This 2nd draft is substantially different than the first. The result is a shorter, more concise plan.

Substantial changes were made in the following areas:

1. Groundwater (Section 1, pages 2 through 4) - The section is now more complete, descriptive, and informative. It may border on being too technical, however, it sets the stage for our conclusion that no water degradation has occurred onsite.

2. Cement kiln dust and pond disposal areas are now separate paragraphs within Section 1.

3. The cover material for the cement kiln dust areas is now a continuation of the overburden material that has been placed on top of the CKD area north of Sky Blue Hill. We have eliminated clay from this portion of the project.

   The justification is that the reaction of the CKD with water creates a cementitious type material that is impervious to water penetration. Soil cover provides aesthetic as well as structural protection of the top CKD layer. We can take the position that this soil/CKD system is equivalent to the intent of Subchapter 15 capping and covering requirements. The RWQCB may argue differently, however, the covering system described in the plan is a good starting position.

An affiliate of The Environmental Resources Management Group with offices worldwide

The ERM Group®

4. We have eliminated the cost section from the report. Pat Cafferty believes that the financial issues can be described in the cover letter to the RWQCB.

5. We have eliminated the post-closure groundwater monitoring variance request. In discussion with Pat Cafferty, he recommended that we take a strong position that the groundwater has not been impacted (i.e. our revision and expansion of the groundwater portion of the report - Section 1) and that by inference we are not going to monitor groundwater in the future because there is no need for the monitoring.

6. We have renumbered the Appendixes. Essentially, Appendix A and B have been interchanged from the first draft.

We hope this 2nd draft meets Riverside Cement's needs. Please call if you have any questions or require further information.

Sincerely,

ERM-WEST

Dennis Miller
Engineer

DGM/1231.10

Enclosure
cc: w/enclosure: Pat Hill, Jerry Farr, Pat Cafferty, Bruce Sterns

California Re nal Water Quality C trol Board

Santa Ana Region

Peter M. Rooney
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
3737 Main Street, Suite 500, Riverside, California 92501-3339
Phone (909) 782-4130 • FAX (909) 781-6288

Pete Wilson
Governor

June 3, 1998

TO: ATTACHED MAILING LIST

TRANSMITTAL OF ADOPTED ORDER

At the regular Board meeting held on May 29, 1998, the Regional Board adopted Order No. 98-77, a blanket order rescinding waste discharge requirements for eleven facilities located in San Bernardino, Orange and Riverside counties. Orders for these specific facilities were rescinded because the facilities are no longer in operation, the discharges from the facilities have ceased, the ownership of the facilities has changed or because discharges from the facilities have no significant impact on the quality of waters of the Region.

A copy of the order is enclosed for your records. To ascertain the specifics related to each individual facility, please refer to Attachment "A" of the order.

Sincerely,

GERARD J. THIBEAULT
Executive Officer
Santa Ana Regional Water Quality Control Board

Enclosure: Order No. 98-77

/kyw

MAILING LIST

Martin Gauss
Riverside Christian Day Schools
18401 Van Buren Blvd.
Riverside, CA 92504

Richard Ball, Plant Manager
Riverside Cement Company
1500 Rubidoux Blvd.
Riverside, CA 92509

McDaniel Enterprises
17130 Hellman Avenue
Corona, CA 91720

Michele A. Hanisee
Environmental Compliance Dept.
Thrifty Oil Company
10000 Lakewood Blvd.
Downey, CA 90240-4082

Joe Grossman
San Bernardino Golf Club
1494 S. Waterman Avenue
San Bernardino, CA 92408

Jim Von Dohlen
CA Dept. of Transportation, District 8
P. O. Box 231
San Bernardino, CA 92402

Joo Hyun Kim
Borneo International Furniture, Inv.
18725 E. Gale Avenue
City of Industry, CA 91748

Jim Albers
R and J Albers
Dairy
7311Kimball
Chino, CA 91710

STATE OF CALIFORNIA—CALIFORNIA ENVIRON[illegible] PROTECTION AGENCY PETE WILSON, Governor
CALIFORNIA REGIONAL WATER QU[illegible] CONTROL BOARD
SANTA ANA REGION
3737 MAIN STREET, SUITE 500
RIVERSIDE, CA 92501-3339
PHONE: (909) 782-4130
FAX: (909) 781-6288

April 21, 1998

State Water Resources Control Board, Office of the Chief Counsel, Ted Cobb
State Water Resources Control Board - John Youngerman
State Department of Water Resources - Glendale
State Department of Health Services - San Bernardino, Kalyanpur Baliga
State Department of Health Services - San Diego, Toby Roy
San Bernardino County Department of Environmental Health Services - Pam Bennett
San Bernardino County Transportation/Flood Control District - Ken Guidry
Riverside County Department of Health - John Silva
Riverside County Flood Control and Water Conservation District
Orange County Public Facilities & Resources Department
Orange County Health Care Agency
Orange County Water District
Eastern Municipal Water District

RESCISSION OF WASTE DISCHARGE REQUIREMENTS AND WASTEWATER RECLAMATION REQUIREMENTS FOR SPECIFIC FACILITIES, ORDER NO. 98-77

Ladies and Gentlemen:

Enclosed is a copy of tentative Order No. 98-77, which is a blanket order rescinding waste discharge requirements for specific dischargers. The requirements for the dischargers and reclaimed water users listed in Attachment "A" were adopted by the Board at various times. Rescission of these requirements is being considered because the facilities are no longer in operation, discharges from the facilities have no significant impact on the quality of waters in the area, discharges from the facilities have been eliminated, the facilities no longer use reclaimed water, or the facilities are regulated under other waste discharge requirements.

This order is scheduled for consideration by the Board at the May 29, 1998 meeting. Please provide any comments that you may have to this office by May 8, 1998.

If you have any questions, please contact Jawed Shami at (909) 782-3288.

Sincerely,

Joanne E. Schneider
Environmental Program Manager

Enclosure: Tentative Order No. 98-77

JIS/98-77.res

STATE OF CALIFORNIA—CALIFORNIA ENVIRO . PROTECTION AGENCY PETE WILSON, *Governor*

CALIFORNIA REGIONAL WATER QU ' CONTROL BOARD
SANTA ANA REGION
3737 MAIN STREET, SUITE 500
RIVERSIDE, CA 92501-3339
PHONE: (909) 782-4130
FAX: (909) 781-6288

April 21, 1998

Richard Ball, Plant Manager
Riverside Cement Company
1500 Robidoux Blvd.
Riverside, CA 92509

RESCISSION OF WASTE DISCHARGE REQUIREMENTS FOR SPECIFIC FACILITIES, ORDER NO. 98-77

Dear Mr. Ball:

Enclosed is a copy of tentative Order No. 98-77, which is a blanket order rescinding several waste discharge requirements, including those for Riverside Cement Company (Order No. 78-27). Order No. 78-27 is being rescinded because the discharge from your facility poses an insignificant threat to water quality.

This order is scheduled for consideration by the Regional Board at the May 29, 1998 meeting. Please submit any comments that you may have to this office by May 8, 1998.

If you have any questions, please contact Jawed Shami at (909) 782-3288.

Sincerely,

Joanne E. Schneider
Environmental Program Manager

Enclosure: Tentative Order No. 98-77

JIS/98-77.res

California Regional Water Quality Control Board

Santa Ana Region

ORDER NO. 98-77

Rescission of Waste Discharge Requirements and Wastewater Reclamation Requirements
for
Specific Facilities

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board), finds that:

1. The orders listed in Attachment "A" were issued by the Board at various times for the facilities described therein. Attachment "A" is hereby made a part of this order.

2. Waste discharge requirements and wastewater reclamation requirements for the facilities listed in Attachment "A" are no longer necessary because the facilities are no longer in operation, discharges from the facilities have no significant impact on the quality of waters in the area, discharges from the facilities have been eliminated, the facilities no longer use reclaimed water, or the facilities are regulated under other waste discharge requirements.

3. This action is based on the cessation of discharges of waste, which poses no significant adverse impact on the environment, or on the finding that specific discharges have no significant environmental impacts. As such, this action is exempt from the requirements of the California Environmental Quality Act in accordance with Section 15061 (b) (3), Chapter 3, Title 14 of the California Code of Regulations.

4. The Board has notified the dischargers and interested agencies and persons of its intent to rescind waste discharge requirements for the facilities listed in Attachment "A", and has provided them with an opportunity to submit written comments and recommendations.

5. The Board, in a public meeting, heard and considered all comments pertaining to the rescission of waste discharge requirements.

IT IS HEREBY ORDERED that the orders listed in Attachment "A" be rescinded.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on May 29, 1998.

Gerard J. Thibeault
Executive officer

TENTATIVE

California Regional Water Quality Control Board
Santa Ana Region

May 29, 1998

Staff Report

ITEM:

SUBJECT: Rescission of Waste Discharge Requirements and Wastewater Reclamation Requirements for specific facilities, Order No. 98-77

DISCUSSION:

Waste discharge requirements and wastewater reclamation requirements for the facilities listed in Attachment "A" of Order No. 98-77 are no longer necessary because the facilities are no longer in operation, discharges from the facilities have no significant impact on the quality of waters in the area, discharges from the facilities have been eliminated, the facilities no longer use reclaimed water, or the facilities are regulated under other waste discharge requirements.

RECOMMENDATION:

Adopt Order No. 98-77, as presented.

In addition to the dischargers listed in Attachment "A", comments were solicited from the following agencies:

State Water Resources Control Board, Office of the Chief Counsel, Ted Cobb
State Water Resources Control Board - John Youngerman
State Department of Water Resources - Glendale
State Department of Health Services - San Bernardino, Kalyanpur Baliga
State Department of Health Services - San Diego, Toby Roy
San Bernardino County Department of Environmental Health Services- Pam Bennett
San Bernardino County Transportation/Flood Control District - Ken Guidry
Riverside County Department of Health - John Silva
Riverside County Flood Control and Water Conservation District
Orange County Public Facilities & Resources Department
Orange County Health Care Agency
Orange County Water District
Eastern Municipal Water District

ORDER NO. 98-77

Attachment "A"

SAN BERNARDINO COUNTY

	ORDER NO.	Facility and Location	Reason for Rescission
1.	89-88	Jim Albers R & J Albers Dairy Chino	Dairy no longer in business
2.	85-53	San Bernardino Golf Club San Bernardino	Facility no longer using reclaimed water
3.	83-97	California Department of Transportation San Bernardino	Department no longer using reclaimed water

RIVERSIDE COUNTY

	ORDER NO.	Facility and Location	Reason for Rescission
4.	78-27	Riverside Cement Company Riverside	Insignificant threat to water quality
5.	90-21	Tommie McDaniel McDaniel Enterprises Corona	Facility no longer in business
6.	76-198	Riverside Christian Day School Riverside	Insignificant threat to water quality
7.	91-6	Borneo International Furniture, Inc. Moreno Valley	Facility no longer using reclaimed water

8.	89-126	California Department of Fish & Game San Jacinto	Currently covered under Order No. 88-94
9.	87-28	A & G Sod Perris	Currently covered under Order No. 88-94
10.	90-106	Hemet Valley Hospital District Moreno Valley	Facility no longer using reclaimed water
11.	89-79	Landmark Land Company Moreno Valley	Facility no longer using reclaimed water

ORANGE COUNTY

ORDER NO.	**Facility and Location**	**Reason for Rescission**
12. 90-130	Thrifty Oil Company Station No. 361 Stanton	Discharge has been eliminated

Figure 3-2
Topographic Map
CBSWPPP.DOC(8-XX-10/00)
3-4
Outcoming Sample SP-2
Outcoming Sample SP-1
Air Gap
Property Boundary
Holding/Silt Areas
Storm Water Figure 3-2
Notes by Ekwall
10/13/2000
3-E
(5)
Figure 3-2
G-1282

APPENDIX D

RCDEH Documents

Tank Testing
3236 S. Mooney Blvd.
Visalia, CA 93277
(209) 625-0911

P-1149-08

FINAL REPORT
REMOVAL OF STORAGE TANKS
RIVERSIDE CEMENT COMPANY FACILITY
RIVERSIDE, CALIFORNIA

RIVERSIDE CEMENT COMPANY
RIVERSIDE, CALIFORNIA

MARCH 1988

TABLE OF CONTENTS

Section		Page
1.0	INTRODUCTION	1
2.0	TANK-SITE DESCRIPTION	1
3.0	TANK REMOVAL PROCEDURES	2
3.1	Access Tanks for Liftout	2
3.2	Empty Tanks of Product	3
3.3	Purging	3
3.4	Official Inspection/Approval	4
3.5	Tank Liftouts	4
3.6	Tank Disposal	4
3.7	Field Sampling	5
3.8	Tank Excavation Backfill	5
4.0	RESULTS	6
5.0	DISCUSSION and CONCLUSIONS	6
6.0	RECOMMENDATIONS	7
7.0	LIMITATIONS	8

LIST OF PLATES

PLATE 1. Site Location Map
PLATE 2. Plot Plan - Crane Parking Building Locality
PLATE 3 Plot Plan - Boiler Building Locality

APPENDICES

APPENDIX A. Site Permits and Documents
APPENDIX B Soil Profile
APPENDIX C. Chain of Custody Form
APPENDIX D. Laboratory Analysis Report

1.0 INTRODUCTION

Cal Tank Testing and Repair Company (CTT) completed all work and furnished all labor, materials, tools, equipment, and services necessary to properly remove two underground storage tanks (UST's) on property operated by Riverside Cement Company in Riverside, California (Plate I). Plates 2 and 3 show where the tanks were located on the site. Removal procedures were conducted in accordance with applicable requirements stipulated by the Riverside County Department of Health, Environmental Health Division.

Tank-removal field work initiated on March 3, 1988, and was completed by March 4, 1988. Appropriate removal and disposal permits were obtained and approved by Riverside County, prior to initiating the field work. Overall project management was provided by CTT. Tank-cleaning was provided by Kal-Vac Liquid Waste Removal of Whittier, California, and haul-off services were provided by American Metal Recycling, Inc., of Ontario, California. Soil sampling and environmental services (i.e., final report generation) were provided by LOK Environmental, Inc., of Ventura, California. Copies of pertinent documentation including permits, notifications, receipts, and manifests are provided in Appendix A.

The contents of this report include a description of the procedures followed for the removal of the UST's. Field observations and results of laboratory analysis for tank excavation and soil samples are also described. A discussion of the project findings and interpretations is included at the end of the report along with recommendations for potential followup work.

2.0 TANK-SITE DESCRIPTION

The site is located on the east side of Rubidoux Blvd., south of El Rivino Road in Riverside County, just south of the San Bernardino/Riverside County line (Plate 1). Access to the site was via Rubidoux Blvd. onto the Riverside Cement Company facility at 1500 Rubidoux Road, Riverside, California.

Two tank sites were involved in removal. One tank was located south of the crane parking building (Plate 2). This 550-gallon tank (approximately 4'x6') was of single-walled steel construction. According to site records, the tank was manufactured in July 1976. Since installation, the tank was used for waste-oil storage. Additional site-specific information and tank characteristics are detailed on Plate 2. The top of the tank was located approximately 4-feet below ground surface. The bottom of the tank was 8-feet below grade.

The subsurface geologic conditions that characterize the soils surrounding the waste-oil tank consist of two different soil units. Below a two-foot thick, gravelly-sand backfill unit at the surface, the soils consist of a fine-grained, yellowish-brown sand that extends from 3-feet to more than 8-feet below grade at the site (see Soil Profile in Appendix B).

The other tank was located west of the boiler building (Plate 3). This 10,000-gallon tank (approximately 8'x27') was of single-walled steel construction. This tank was used for storage and dispensing of diesel to support fueling of Riverside Cement Company operations. Exact age of this tank is unknown. Additional site-specific information and tank characteristics are detailed on Plate 3.

The top of the boiler building tank was located 3-feet below ground surface. The ground is comprised of gravelly-sand fill material that occupies the remainder of the local facility yard. The bottom of the tank was 11 feet below grade within this fill material. A hard bedrock unit was encountered at less than one foot below tank bottom level (i.e., approximately 11.5 feet below grade).

3.0 TANK REMOVAL PROCEDURES

3.1 Access Tanks For Liftout

A backhoe was used to expose the top of both tanks and to excavate soils on the sides of the tank. All product piping lines associated with both UST's were disconnected and removed. Other

tank fixtures, if present, including the fill pipes, gauge pipes, and vapor-recovery truck connections were also disconnected and removed.

3.2 Empty Tanks Of Product

As much of the tank contents as possible were emptied by hand-held suction hose in the UST's by the use of a vacuum truck. Cleaning out the tank interior was limited to tank-top openings, too small to permit worker entry. Required safety precautions were maintained at all times to ensure a safe-working environment (i.e., protective clothing, gloves, boots, etc.).

The tank underwent a cleansing, flushing, and triple-rinsing procedure using a cleaning agent that helped neutralize tank interior walls and was then flushed with a high-pressure water spray capable of rinsing down the product. The rinseate was transferred to vacuum truck and transported off site by Kal-Vac. The process for the cleaning and rinsing of the tanks was inspected by Mr. Joseph Asbury, Hazardous Materials Specialist with the Environmental Health Division of Riverside County.

3.3 Purging

The tank atmosphere was purged of flammable vapors with dry ice (solid carbon dioxide) for on-site inerting of tank prior to removal from the site. A minimum of 15 pounds of dry ice per 1000 gallons of tank capacity was deposited through the tank openings. Approximately 20 pounds and 200 pounds of dry ice was inserted into the 550 gal. tank and 10,000 gal. tank, respectively. The dry ice was crushed and distributed evenly over the greatest possible area in the tanks to promote rapid evaporation. The dry ice was allowed to vaporize for a minimum of one hour to achieve sufficient venting of all tank vapors from the tanks. A combustible gas indicator was used to monitor vapor concentrations in the tanks and work areas to ensure that the atmosphere in each tank did not exceed 20 percent of the lower flammable limit.

3.4 Official Inspection/Approval

On-site inspection and approval to remove the tanks from the excavation/vault was conducted by Mr. Joseph Asbury. Mr. Asbury was present onsite on both the 3rd and 4th of March, 1988, to view the exposed tanks. Following physical inspection of the tank, Mr. Asbury approved the removal of both tanks after ensuring that proper vapor-purging procedures had been followed. Mr. Asbury was also present to witness tank liftouts and direct the acquisition of soil samples from beneath both tanks. Mr. Asbury thereafter approved the removal and transfer of the tanks from the sites.

3.5 Tank Liftout

The smaller tank (i.e., 550 gal.) was lifted out of the ground by cables attached to a backhoe. For the larger tank (i.e. 10,000 gal.), cables were attached to tank eyelets and the tank was lifted out of the excavation with a crane. Both tanks were placed on level ground and chocked with wood blocks to allow cleaning and visual inspection of the exterior walls. The tanks were always positioned with vent openings on the top to allow an escape route of possible residue vapors that may have accumulated.

3.6 Tank Disposal

The tanks were loaded and secured onto American Metal Recycling, Inc., trucks, manifested and hauled off for further cleaning and disposal, in accordance with all applicable local, state, and federal regulations. Each tank was transported off site the same day as removed from its excavation. The tanks were transported to American Metal Recycling, Inc., facilities at 2202 South Milliken Avenue, California, to be cut up for scrap. A "Certificate of Destruction" will be provided by American Metal Recycling, Inc., to the appropriate agencies to verify that proper disposal procedures were completed.

LOK/CT

3.7 Field Sampling

Soils were sampled beneath the tanks at locations as noted on Plates 2 and 3. Because the 550 gal. waste-oil tank was relatively small, only the soils from beneath tank center were required to be sampled at two- and five-feet depths (Plate 2). For the tank at the boiler building locality, Mr. Asbury directed that two discrete soil samples be collected from the two- and six-feet intervals below and near the ends of the 10,000 gal. tank (Plate 3). However, only three soil samples were collected beneath this tank since hard bedrock material precluded the acquisition of any soil samples deeper than 2.5 feet below tank bottom.

All soil samples were contained in glass sample jars with teflon-lined lids. Once collected, these samples were immediately capped, sealed, and labeled. All samples were placed in a chilled ice chest for subsequent shipment to a certified laboratory for analysis. Sample collection and site monitoring were completed under the guidance of Mr. David H. Klise, R.G, LOK Environmental, Inc., of Ventura, California. The samples are identified as follows:

Sample #	Sample Point (See Plates 2 and 3)
S-01-02	2' below tank bottom: tank center
S-01-05	5' below tank bottom: tank center
S-02-02	2' below tank bottom: north end of tank
S-03-02	2' below tank bottom: south end of tank
S-03-06	2.5' below tank bottom: south end of tank

The samples were shipped to Chemical Research Laboratories (CRL), Santa Maria, California, via overnight delivery. Appropriate chain of custody forms were filled out and accompanied the samples to the lab. Completed chain of custody forms are provided in Appendix C.

3.8 Tank Excavation Backfill

Following tank removal and sampling of soils beneath the 550 gal. waste-oil tank, the excavation soils were replaced into the excavation hole. Additional soils (i.e., clean-fill dirt) were

delivered to the site as replacement for the former volume occupied by the 550-gal. tank. This amounted to about 4 cubic yards. The backfill material was recompacted to relative compaction of 90 per cent. The site was completed by leveling to existing grade within the facility yard.

4.0 RESULTS

Once both tanks at each locality were clear of their respective excavations, the tank exteriors were cleaned and visually inspected. No corrosion holes were observed in either of the tank shells.

All soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) by EPA Method 418.1 by IR per the direction of Environmental Health Division of Riverside County. In addition, the two samples from below the 550 gal. waste-oil tank at the crane parking locality were analyzed for total lead content by EPA Method 7421.

The laboratory analyses show that all soil samples contained detectable concentrations of petroleum hydrocarbons. The concentrations, in mg/kg (ppm) range from 57 to 1000 ppm for soils below the waste-oil tank and from 34 to 15,000 ppm for soils below the diesel tank. Concentrations of lead in the two samples from beneath the waste-oil tank were 0.9 ppm and 3.3 ppm in the two-and five-feet samples,respectively. Verbal reporting of these results was relayed to Mr. Joseph Asbury via telephone on 3/15/88. Hard copy reports of the laboratory analyses are provided in Appendix D.

5.0 DISCUSSION and CONCLUSIONS

Laboratory analyses of the soil samples taken from below both of the removed underground storage tanks at the Riverside Cement Company facility show evidence of petroleum-substance contamination. However, visual evidence of contamination or spillage of tank-storage product was not readily apparent in the soils removed from either tank excavation. Only a moderately strong petroliferous odor was noticed from soils about the fill pipe area at

C1291

the north end of the 10,000 gal. diesel tank. Both tank systems appear to have maintained integrity throughout use history as no corrosion holes were observed in either of the tank sides. Thus, evidence of petroleum-substance presence in the soils is apparently the result of either piping leaks, surface spillage, or overfill leakage that occurred while the tank systems were in operation.

6.0 RECOMMENDATIONS

1. A site assessment investigation is recommended for the two tank-removal localities near the areas of the crane parking and boiler buildings. Further testing of the soils by organic vapor-sensing instruments (e.g., Photovac TIP , HNU-PID, OVA) would help delineate and isolate the presence or non-presence of product plumes in the overburden soils above bedrock.

2. It is recommended that excavated soils containing suspected hydrocarbon components be treated, stored, and disposed by utilizing onsite facility equipment used in the cement manufacturing process. This could include incorporation of the material into the manufactured product by controlled heat applications in the onsite kilns.

3. Additional soil sampling collection by drilling methods is recommended to explore those localities where deeper product migration may be suspected (i.e., those subsurface depths beyond the practical limitation of reach for conventional excavation equipment). If, for example, product plumes are discovered at depths of greater than 20 to 30 feet below ground surface, then alternate means of remediation would be recommended.

4. It is recommended that a finalized copy of this report be submitted to the Riverside County Department of Health - Environmental Health Division to attain compliance with local tank-removal regulations.

CT

7.0 LIMITATIONS

This report has limitations, and as such, it should not be construed that all possible site conditions were identified. It should be recognized that there is no guarantee this study has covered all possible environmental issues at the sites. A more detailed environmental investigation is warranted, if potential future liability is of concern.

The standard of services performed by CTT was conducted in a manner consistent with the level of care and skill ordinarily exercised by the industry operating under similar conditions in the State of California. No other warranty is expressed or implied.

CTT looks forward to working with Riverside Cement Company on any continuation of this project and future projects. If we can provide additional services or information, please contact us.

Sincerely,

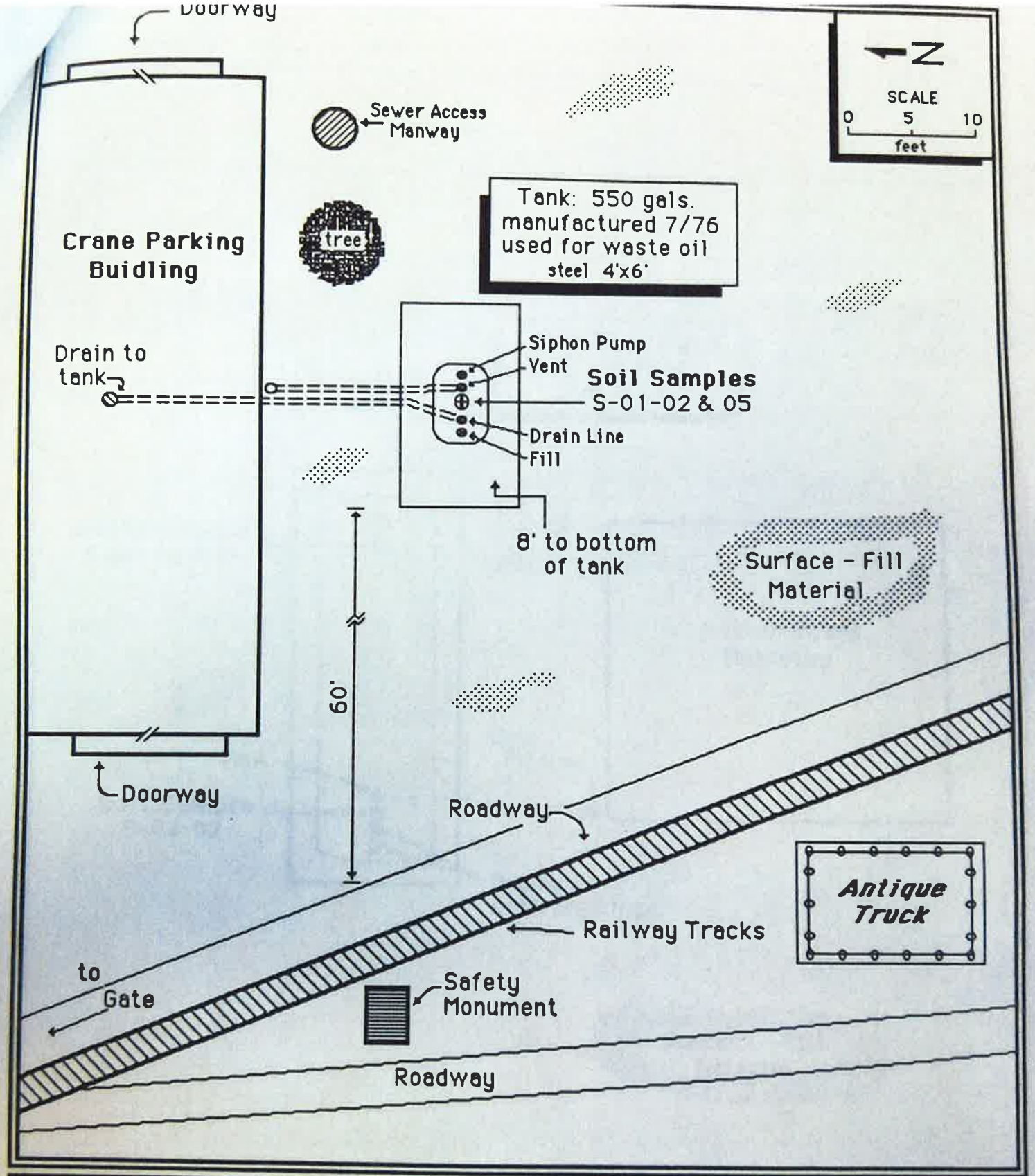
Cal Tank Testing

Doc Quinn
Manager

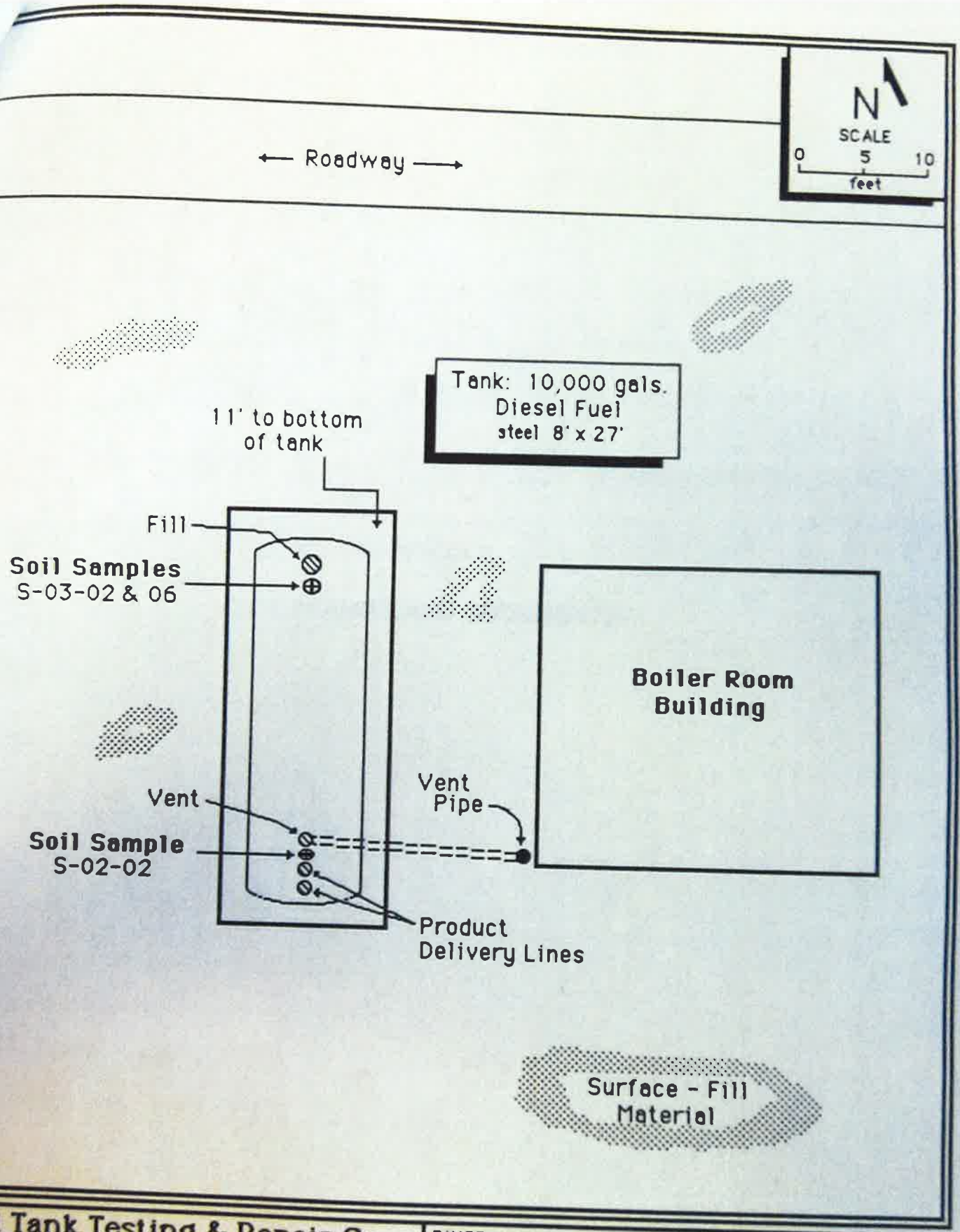
LOK Environmental Inc.

David H. Klise, R.G. 4324
Director
Environmental Services

DQ:DHK:so



Cal Tank Testing & Repair Co. & LOK Environmental, Inc. P-1149-88 MARCH 1988	RIVERSIDE CEMENT COMPANY RIVERSIDE, CALIFORNIA PLOT PLAN-CRANE PARKING BUILDING LOCALITY	PLATE 2



Cal Tank Testing & Repair Co. & LOK Environmental, Inc. P-1149-88 MARCH 1988	RIVERSIDE CEMENT COMPANY RIVERSIDE, CALIFORNIA PLOT PLAN - BOILER BUILDING LOCALITY	PLATE 3

Cal Tank Testing

3296 S. Mooney Blvd.
Visalia, CA 93277
(209) 625-9911

May 3, 1988

P-1152-88

Environmental Health Services, County of Riverside
Hazardous Materials Branch
3636 University Avenue
Riverside, CA 92502

Attn: Mr. Joe Ashbury

Subject: Investigation of excavation soils beneath two tank-removal localities at the Riverside Cement Company in the County of Riverside.

Dear Mr. Ashbury:

In early March of 1988, Cal Tank Testing and Repair Company (CTT) in conjunction with LOK Environmental, Inc., followed applicable closure procedures to properly remove two underground storage tanks (UST's) located at the Riverside Cement Company facility in the County of Riverside (Plate 1). Your in-house reference to this work can be found in the previously-submitted report entitled "Final Report - Removal of Storage Tanks - Riverside Cement Company Facility - Riverside, California", dated March, 1988 as numbered project P-1149-88. In brief, laboratory analysis of below-tank soils from both excavations initially revealed the presence of hydrocarbon concentrations. This reported finding prompted the verbal request by Mr. Joe Ashbury of Riverside Environmental Health Services that collecting and testing of additional soil samples would be required to better determine the extent and magnitude of hydrocarbon product in soils below the tank-removal localities. The contents in this letter report describe how and where the additional soil samples were collected and notifies Riverside Environmental Health Services of the latest laboratory-analyses results.

The first tank-removal locality is located near the crane-parking building (Plate 2). After the tank was removed, initial soil samples were collected at depth intervals of two and five feet below tank-bottom level. These sample intervals are equivalent to depths of 10 and 13 feet below grade level. The later follow-up sample was collected from a soil-depth interval of 15 feet below grade level (Plate 2). The chain of custody and laboratory analysis report for this sample are attached. All three soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) and total lead by EPA methods 418.1 and 7421, respectively, as required for a tank-history content of waste oils. Analytical results of these samples are compiled in Table 1.

Table 1. Results of laboratory analysis for soils below tank-removal locality near crane-parking building.

Sample Number	Depth Interval	Date Sampled	Lead mg/kg	TPH mg/kg
S-01-02	10'	3/3/88	0.9	57
S-01-05	13'	3/3/88	3.3	1000
S-01-15A	**15'**	**4/8/88**	**1.9**	**27**

*Depth in feet below grade.
Follow-up sample in bold type.

The follow-up sample collected from sandy soils at a depth of 15 feet below grade level for the tank at the crane-building locality contained relatively low concentrations of TPH and lead. The earlier sample collected two feet above contained TPH concentrations of about two orders of magnitude greater. This rapid diminution in TPH concentrations within soils beneath the former tank locality suggests that extensive amounts of hydrocarbon components (i.e., waste oils) have not been released throughout the use history of this UST. That some TPH concentrations have been discovered in soils below this tank can probably be explained as the consequence of overfill occurrences and spillage while pumping out by vacuum truck for disposal of used oils.

The second tank-removal locality is located near the boiler building (Plate 3). After the tank was removed, initial soil samples were collected from two feet below the tank-bottom level at both the north and south ends of the tank. Another soil sample was also collected from 2.5 feet below tank-bottom level on the north end. As you may recall, deeper soil sampling was precluded by a hard lithofied layer at a depth of about 2.5 feet below the tank-bottom level at this site. Because of this, the later follow-up sample was taken from soils hollowed out atop the hard lithofied layer residing five feet farther north of the north tank end (Plate 3). The chain of custody and laboratory analysis report for this sample are attached. All samples from this tank-removal site locality were analyzed for TPH by EPA method 418.1 as required for a tank-history content of diesel fuel. Analytical results of these samples are compiled in Table 2.

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Table 2. Results of laboratory analysis for soils below tank-removal locality near boiler building.

Sample Number	Depth Interval*	Date Sampled	Tank End	TPH mg/kg
S-02-02	13'	3/4/88	south	34
S-03-02	13'	3/4/88	north	15,000
S-03-06	13.5'	3/4/88	north	2,000
S-02-13N	**13'**	**4/8/88**	**north**	**18**

*Depth in feet below grade.
Follow-up sample in bold type.

Elevated levels of TPH in soils beneath the north end of the boiler-building tank are likely the result of overspill at times of tank refilling. Only lateral migration of this spilled product could ensue since the hard lithofied layer immediately below the tank prevented any deeper (i.e., vertical) product migration. However, lateral product migration appears to have been limited to soils within the proximity of the fill-tube situated near the north end of the boiler-building tank. Extensive concentrations of hydrocarbon product were not found at the follow-up soil-sample site, a distance of more than ten feet from the previous location of the fill-tube area of the tank (see Plate 3).

Comparison of the analytical laboratory results between the initial and follow-up samples of the soils below the two tank-removal localities indicate reduced hydrocarbon concentrations with increased distance from previous tank emplacements. This suggests that although some tank-system products at both localities had escaped to surrounding soils in the past, the amounts were probably not excessive. All excavated soils from both tank-removal localities were loaded into trucks and transported to the on-site temporary storage location for subsequent use in the manufacturing of Riverside Cement Company products.

The above information is based on the limited data derived from the work performed to date according to standard professional practice. Additional data may allow for reinterpretation of conditions. No other warranty is expressed or implied.

LOB/CTT

We hope the above information is satisfactory for your needs at the present time. If you have any questions or require additional information, please contact us.

Sincerely,

Cal Tank Testing & Repair Company

Doc Quinn
Manager

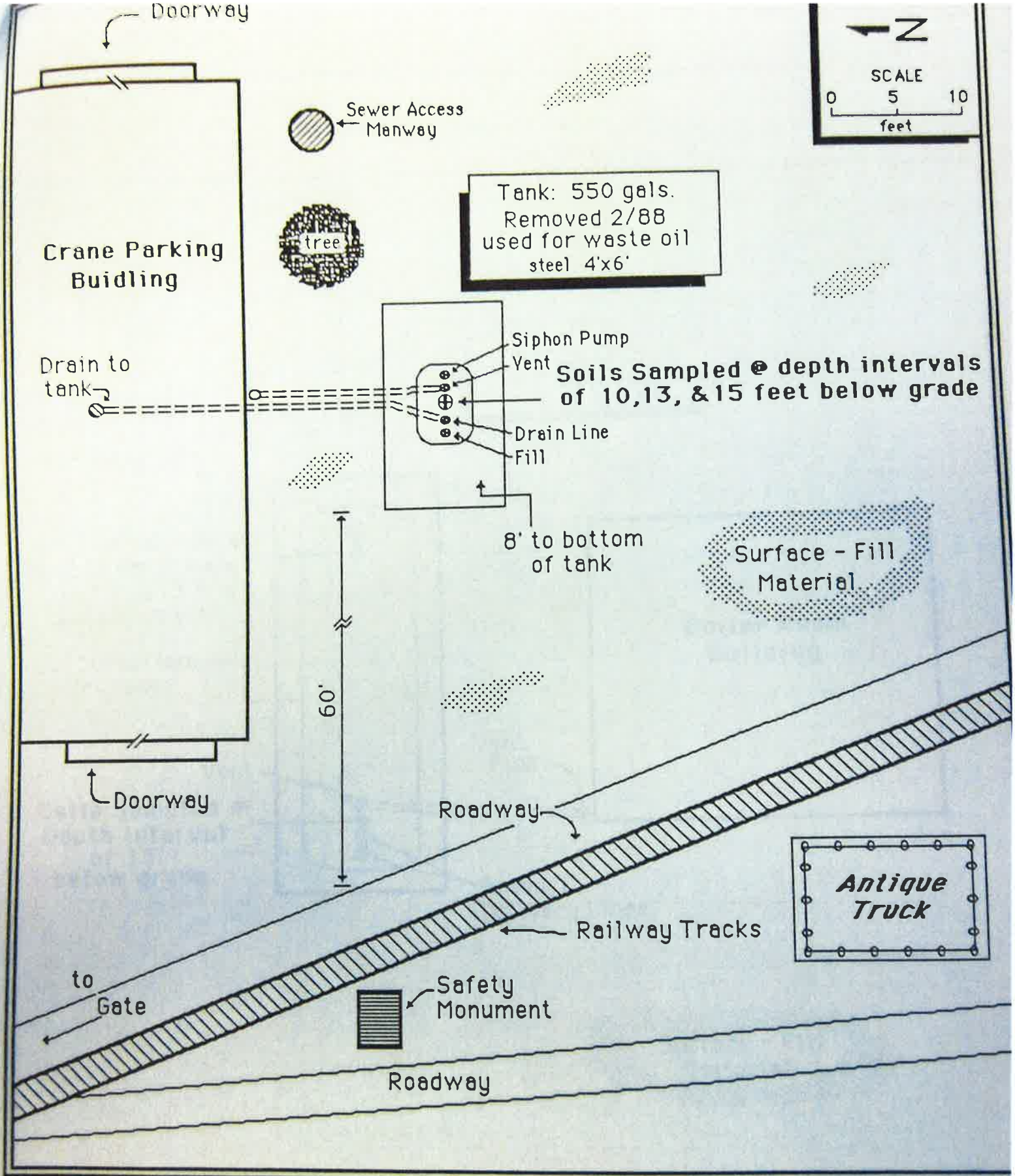
LOK Environmental, Inc.

David H. Klise, R.G., 4324
Director Environmental
Services

REGISTERED GEOLOGIST
DAVID H. KLISE
NO. 4324
STATE OF CALIFORNIA

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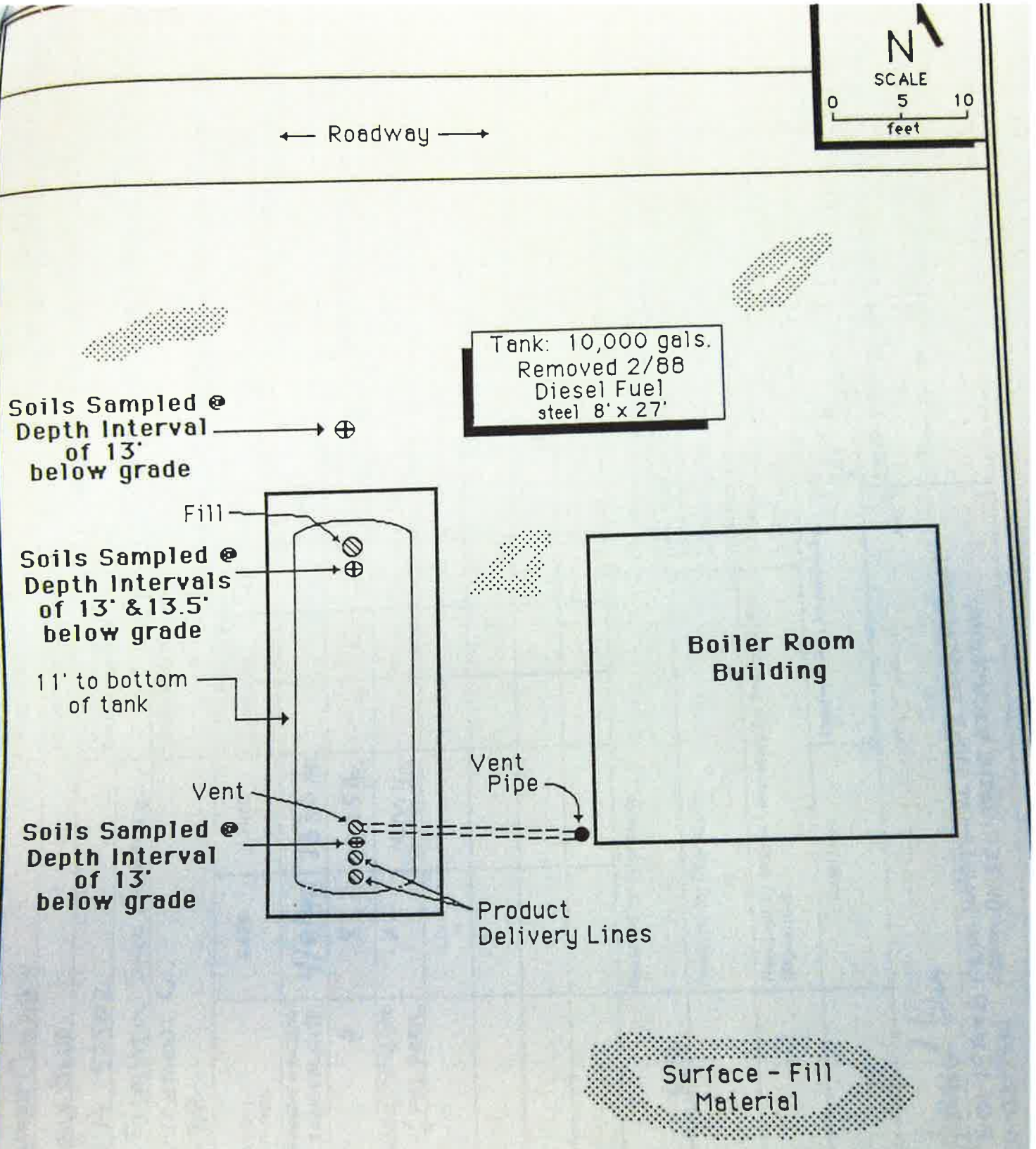


Cal Tank Testing & Repair Co. &
LOK Environmental, Inc.
P-1152-88 MAY 1988

RIVERSIDE CEMENT COMPANY
RIVERSIDE, CALIFORNIA
TANK-REMOVAL LOCALITY
CRANE-PARKING BUILDING

PLAT
2

G-1300



Cal Tank Testing & Repair Co. & LOK Environmental, Inc. P-1152-88 MAY 1988	RIVERSIDE CEMENT COMPANY RIVERSIDE, CALIFORNIA TANK-REMOVAL LOCALITY BOILER BUILDING	PLA 3

3296 S. Mooney Blvd.
Visalia, CA 93277
(209) 625-9911

P-1152-88

FINAL REPORT
LEAK DETECTION INVESTIGATION, MONITORING WELL CONSTRUCTION, & INSTALLATION OF ELECTRONIC MONITORING SYSTEMS FOR UNDERGROUND STORAGE TANKS

RIVERSIDE CEMENT COMPANY
RIVERSIDE, CALIFORNIA

MAY 1988

TABLE OF CONTENTS

Section		Page
1.0	INTRODUCTION	1
2.0	FIELD-INVESTIGATION METHODS	2
2.1	Drilling Procedures	2
2.2	Soil-Sample Acquisition	2
2.3	Quality Control	3
2.4	Sample Analyses	3
2.5	Monitoring Well Construction	4
2.6	Electronic Monitoring System Installation	5
2.7	Overspill Protection Boxes	6
3.0	RESULTS	7
3.1	Geologic Conditions	7
3.2	Hydrogeologic Conditions	7
3.3	Laboratory Analysis	7
4.0	DISCUSSION	9
5.0	CONCLUSIONS	10
6.0	RECOMMENDATIONS	11
7.0	LIMITATIONS	11

LIST OF TABLES

2-1	Monitoring Well Information	5
3-1	Analytical Results of Laboratory Analysis of Soil Samples	8

PLATES

1 Site Location Map
2 Monitoring Well Locations - Gasoline-Tank Site
3 Monitoring Well Locations - Diesel-Tank Cluster
4 Section View of Monitoring Well and Tank
5 Well-Head and Vapor-Sensor Probe Schematic

APPENDICES

A Tank-Precision Test Data
B Boring Logs
C Exploratory Boring Procedures
D Chain of Custody Records
E Tankgard Monitoring System- Specifications and Description
F Overspill Protection Boxes
G Laboratory Reports of Analytical Results

LOK/C

1.0 INTRODUCTION

A Leak Detection Program was completed by Cal Tank Testing and Repair Company (CTT) in conjunction with LOK Environmental, Inc., (LOK) for underground storage tanks (UST's) located at the Riverside Cement Company facility in Riverside County (Plate 1). The methods and procedures necessary to implement this program were performed under applicable requirements established by the County of Riverside, Environmental Health Department.

Tank-precision tests were first conducted to verify the current integrity of the UST systems prior to the initiation of the field investigation. Results of these latest tests indicate that the underground tanks have provided suitable storage. Specific details and data for the tank-precision tests have been previously submitted to the County of Riverside - Environmental Health Services. This test information along with the quantity, type, and contents of the underground storage-tank systems at the Riverside Cement Company facility is again provided for convenience in Appendix A.

The field investigation of subsurface soils adjacent to two separate UST localities on the premises of the facility was undertaken on the 13th & 14th of April, 1988. The work was authorized through Riverside Cement Company in February, 1988 under purchase-order number D-33926. The investigation was pre-approved in accordance with methods and procedures described in the Work Plan submitted by CTT/LOK to the Riverside County, Environmental Health Department.

Overall project management for field-data acquisition, construction of monitoring wells, and installation of an electronic-monitoring system was provided by CTT/LOK. Concrete work, outside electrical, and various tank-top plumbing modification services were completed by Cal Tank Testing and Repair of Visalia, California. Soil sampling and environmental services (i.e., field investigation, sample analysis, and report generation) were provided by LOK Environmental, Inc., of Ventura, California. Drilling services were performed by Drill-Line Division of Norwalk, California. The electronic monitoring devices were connected, calibrated, and started up by Advantage Services, Inc., of Fontana, California.

The contents of this report include a description of the field-exploration techniques used for on-site drilling and soil-sample collection. The geology and subsurface conditions encountered along with results of laboratory analyses are also discussed. In addition, tank modifications and standards for construction of the monitoring wells installed with continuous electronic-monitoring systems are described. The submittal of this report partially satisfies the compliance requirements of the County of Riverside - Environmental Health Services to operate underground storage tanks at the Riverside Cement Company facility.

2.0 FIELD-INVESTIGATION METHODS

2.1 Drilling Procedures

A mobile, trailer-mounted drill rig with 8-inch diameter, continuous-flight, hollow-stem auger was used to drill the exploratory borings. Prior to borehole drilling, all drill bits, auger flights, and associated down-hole equipment were steam cleaned to avoid potential cross-contamination between borings. Drill cuttings from both UST localities were loaded into trucks and transported to an on-site temporary storage location for subsequent use in the manufacturing of Riverside Cement Company products.

2.2 Soil-Sample Acquisition

Two exploratory borings were drilled to sample soils adjacent to and beneath the level of the gasoline-product tank. Plate 2 shows the location of these borings converted to monitoring wells with respect to tank position. Four exploratory borings were drilled about the perimeter of the two diesel-tank cluster at the White Plant. Plate 3 shows the location of these borings converted to monitoring wells with respect to the tank cluster. Soil samples were collected at 5-feet intervals in each exploratory boring, if possible. The samples were obtained utilizing a 2-inch diameter, split-barrel modified Sprague and Henwood (S&H) sampler driven by a 140-pound, down-hole hammer. All retained soil samples were collected in six-inch brass-sampling tubes, sealed with teflon-lined caps, and chilled in an ice chest to stabilize the chemical conditions within the samples. Each sample was labeled to correspond to both the exploratory boring and depth interval from which collected.

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Soil samples were visually logged and described by the field geologist utilizing the Unified Soil Classification System (USCS). A complete description of the soils encountered in each borehole is presented on the final boring logs provided in Appendix B. A chart of the USCS is also included in Appendix B.

2.3 Quality Control

Precautions were taken in the field to minimize cross-contamination of the samples to insure precision and accuracy in the chemical analysis of soils destined for the laboratory. The soil sampler was steam-cleaned before use and between borings. The sampler was washed with TSP (Trisodium Phosphate) solution and then rinsed with clean tapwater between successive soil-sample attempts. Only clean, laboratory-washed, brass-sampling tubes were used for sample collection. An expanded version of the soil-sampling protocol and quality-control procedures is presented in Appendix C.

2.4 Sample Analyses

A total of 32 soil samples were recovered from the six soil borings. At the conclusion of the field work, all soil samples were delivered to Chemical Research Laboratories, Inc., (CRL) located in Ventura, California. The samples were accompanied by the appropriate Chain-of-Custody forms. Copies of the Chain-of-Custody forms completed for these samples are provided in Appendix D.

Two soil samples from each of the exploratory borings adjacent to the gasoline tank were analyzed for the presence of total petroleum hydrocarbons (TPH) as gasoline by California Department of Health Services method (i.e., EPA method 8015). Only those soils from sample-depth intervals of 15 feet and bottom of borehole were analyzed. The remaining soil samples were placed on hold, pending the outcome of test results of the two initial samples from each borehole. Similarly, only those soils from the 15-feet and bottom-hole sample intervals from each of the exploratory borings adjacent to the two-tank diesel cluster at the White Plant were analyzed. These soil samples were analyzed for TPH by EPA method 418.1 as required for a tank-content history of diesel fuel.

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2.5 Monitoring Well Construction

Following completion of drilling and sampling, the six exploratory boreholes were completed as monitoring (detection) wells. The wells were constructed as vadose-zone monitoring wells. Only the construction standards for vadose-zone (vapor) monitoring wells are discussed in detail in this report since groundwater beneath the site was not encountered within the first 30 feet. The locations of the wells for the both tank localities are shown on Plates 2 & 3.

Wells were constructed with 2-inch diameter PVC well casing with flush-threaded joints. Well casing for the monitored interval consists of factory-perforated PVC well screen with 0.020-inch slot widths. Blank PVC casing was emplaced above the screened section. The ends of the well are capped by threaded and push-on end plugs. The annulus coincident to the perforated screen interval was packed with washed sand (Monterey grade #3) to prevent migration of native soil into the well. This filter pack extends from the bottom of the borehole to one foot above the top of the perforated casing. A two-feet thick bentonite seal (wetted bentonite pellets) was placed above the filter pack. The remaining annulus was filled to the surface with concrete. No solvent or casing cement was used in connecting casing sections. A diagram showing a vadose-monitoring well in relation to a tank in cross-sectional view is presented in Plate 4.

Wells are protected at ground surface with 14-inch diameter fill-rings with tamper-resistant steel lids raised 1 inch above grade and mounted in 3' 1" x 3' 1" concrete pad. The design of the surface protection will minimize flow of rainfall or surface runoff into the well. The construction design of the well-head completion is shown in Plate 5. Construction details specific to each well are graphically presented in the boring logs (Appendix B). Monitoring well information is also summarized in Table 2-1.

Each well will have an identification number permanently affixed to the installation. Further identification information such as well owner, depth of well, hole and casing diameters, and depth of a screened interval will be kept on file at an accessible office on the site.

Table 2-1. Monitoring well information, Riverside Cement Company,1500 Rubidoux Blvd., Riverside, California.

Well No. (type)	Total Depth	Screened Interval	Casing Diameter	Bentonite Seals	Geology	Date Drilled
MW-1* (vadose)	30'	5' - 25'	2"	2'-4'	Sand,Gravelley sand	4/13/88
MW-2 (vadose)	25'	5' - 25'	2"	2'-4'	Sand,Gravelley sand	4/13/88
MW-3* (vadose)	30'	5' - 25'	2"	2'-4'	Sand,Gravelley sand,Silt	4/13/88
MW-4 (vadose)	25'	5' - 25'	2"	2'-4'	Sand	4/14/88
MW-5 (vadose)	25'	5' - 25'	2"	2'-4'	Sand	4/14/88
MW-6 (vadose)	25'	5' - 25'	2"	2'-4'	Sand,Silt	4/14/88

* Interval from 25 to 30 feet backfilled (tremied) with cement/bentonite slurry in MW-1 and MW-3.

2.6 Electronic Monitoring System Installation

The continuous monitoring of the UST's at the facility is provided by the Tankgard electronic system. The system gives both visual and audible warnings of vapors given off by leaking products. Various sensor types are offered that detect vapors produced by gasoline, diesel, and organic solvents. Particular design features available for this system include the following:

- individual monitoring of each well.
- individual calibration ranging from 50 ppm to >1000 ppm for each well.
- ease of operation and a 24-hour leak-response technician available at tank-owner's option.
- ease of installation and expansion capability to meet changing needs.

The Tankgard leak detection system is designed for monitoring well applications and used to detect volatile-organic compounds that may escape to nearby soils around underground storage tanks. The system consists of one vapor-sensing probe per well that is directly wired to an on-site alarm panel by low-voltage electrical cable. Design features and operation of the Tankgard system are attached for reference in Appendix E.

Cable entry to well-vapor sensors is accessed through an electrical fitting in the top of well endcap (Plate 5). Sensor position within the well is located within the upper blank PVC casing approximately 2 to 3 feet below the top of the well. Extra cable was coiled inside the well-head junction box should changes occur that would require lengthening sensor emplacement. The alarm-control units are hard wired to a dedicated electrical circuit and sealed to prevent tampering by unauthorized personnel. Both alarm panels are located in areas where the audible and visual alarms can be readily noticed by responsible personnel (see Plates 2 & 3).

2.7 Overspill Protection Boxes

Fill tubes on all existing tanks were retrofitted with 5-gallon capacity spill-protection boxes to eliminate accidental overfill spillage during time of tank filling. The covers to these boxes are water tight and mounted 1-inch above grade to prevent inflow of rainwater runoff into the tanks. A POMECO Model III-VE with drain valve (or equivalent model) was installed. Special features and design of this spill-protection model are specified in Appendix F.

3.0 RESULTS

3.1 Geologic Conditions

The Riverside Cement Company facility resides within the Peninsular Ranges geomorphic province. Near Riverside, there are outcrops of late Paleozoic limestone from which cement is processed. The course of the Santa Ana River flows nearby, contributing Recent alluvium deposits of gravel, sand, and mud (i.e., silt & clay). These sediments cover and restrict the outcrop exposures of the metasedimentary (i.e., limestone) rocks in the area.

3.2 Hydrogeologic Conditions

The exploratory drilling conducted at both UST locations encountered mostly sandy soils to the depths explored (i.e., 30 feet). Thin intervals of gravelly sands and clayey silts were also penetrated. The predominant soil materials were classified as SP, the group symbol for poorly-graded sands with little or no fines (see Appendix B, Plate B-O). Layers intermixed with the sand deposit were classified as SW and ML, the group symbols for gravelly sands and clayey silts, respectively. Appendix B contains the boring logs of the sections described above.

Groundwater was not encountered in any of the exploratory borings drilled. Within this sector of the Santa Ana hydrogeologic basin, depth to groundwater is estimated to be greater than 100 feet, based on nearest well information.

3.3 Laboratory Analysis

Laboratory analysis was performed on soil samples from two depth intervals in each of the six exploratory borings. All samples from the 15-feet depth interval, as well as, the bottom of borehole were analyzed. Thus, a total of 12 laboratory-test analyses were performed. These soil samples were analyzed for concentrations of total petroleum hydrocarbons (TPH). The results of discrete analysis performed on each sample are tabulated for the corresponding borings in Table 3-1. Copies of the laboratory analytical reports analyses and the quality-control data are provided in Appendix G.

LOK

Table 3-1. Analytical results of laboratory analysis of soil samples.

Sample ID Number	Map Location (Plates 2&3)	Sample Depth	TPH* (mg/kg)
S-01-15	MW-1	15'	ND<5**
S-01-30	MW-1	30'	ND<5
S-02-15	MW-2	15'	ND<5
S-02-25	MW-2	25'	ND<5
S-03-15	MW-3	15'	ND<1
S-03-30	MW-3	30'	33
S-04-15	MW-4	15'	ND<1
S-04-25	MW-4	25'	ND<1
S-05-15	MW-5	15'	ND<1
S-05-25	MW-5	25'	ND<1
S-06-15	MW-6	15'	ND<1
S-06-25	MW-6	25'	ND<1

* TPH = Total Petroleum Hydrocarbons by CA DHS or EPA 418.1 methods; values in mg/kg (ppm).

** ND = Not Detected;(below indicated level of detection).

4.0 DISCUSSION

Two specific options were approved by the Riverside County Department of Environmental Health Services to provide for the continuous monitoring of UST's at the Riverside Cement Company facility. These options were presented in the previously submitted CTT/LOK Work Plan. In review, Option 1 would have been implemented if groundwater was anticipated to occur at depths shallower than 100 feet. If groundwater was deeper than 100 feet, then criteria established under Option 2 would be implemented. Since groundwater is estimated to be deeper than 100 feet and groundwater occurrence was not encountered within the subsurface depths explored, the construction standards for installation of vadose-zone monitoring wells were followed. This monitoring method is consistent with the intent of regulations adopted by the California State Water Resources Control Board and by the County of Riverside.

The Tank Monitoring Program was developed for facilities where soils or groundwater have not been adversely affected by the existing underground tank systems. With the exception of only one soil sample, the concentration levels of hydrocarbon/motor-fuel components for those samples analyzed were all below the limit of detection. The one soil sample found to contain a detectable TPH concentration came from the 30-feet sample-depth interval in the boring for MW-3 (i.e., adjacent to the two diesel-tank cluster near the White Plant). However, this isolated soil sample contained a relatively low TPH concentration of only 33 mg/kg (ppm) which is low enough to calibrate out as background interference.

Under these conditions, the Tank Monitoring Program provides for the earliest detection of tank-leaking materials. The monitoring wells in combination with the electronic monitoring system are designed to intercept and detect escaped hydrocarbon products should any tank-system leakage occur in the future. The continuous monitoring of the vadose-zone soils in the vicinity of the tanks will allow for timely response in the event an unauthorized release takes place.

To complete the Underground Tank Program, the overspill-protection containers installed on each tank-fill tube will minimize surface-spillage release of product during refill. Any motor-fuel product captured in these containers can be returned to the respective tank in the event of tank overfill. Tank-precision tests have also demonstrated the current integrity of the tank systems. Precision tests can be conducted periodically to verify the future integrity of the UST systems at the Riverside Cement Company facility.

5.0 CONCLUSIONS

A Leak Detection Investigation was conducted as part of a Leak Detection Program for the underground storage tanks (UST's) used to store fuel products at the Riverside Cement Company facility in Riverside, California. Field data and laboratory analytical results of soil samples from the facility suggest the following conclusions:

1. Subsurface soils are alluvial sediments, predominantly composed of sandy soils intermixed with units of gravelly sands and clayey silts.

2. Groundwater (i.e., saturated-soil zone) was not encountered within the subsurface depths explored to 30 feet.

3. The soil-sampling scheme and monitoring-well construction design (i.e., vadose-zone wells) followed procedures established for areas where deep-groundwater conditions exist.

4. Total petroleum hydrocarbon (TPH) concentrations in all but one soil sample were below the limit of detection. One soil sample (i.e., S-03-30) contained a relatively low TPH concentration of only 33 mg/kg (ppm).

5. Evidence of free hydrocarbons in the soil was not detected by olfactory or visual observations.

6. The latest tank-precision tests indicate that the tanks and associated piping systems are free of leakage.

6.0 RECOMMENDATIONS

1. The findings and results of the work as presented in this report should be submitted to the County of Riverside, Department of Environmental Health Service, as required by regulation for compliance of the underground storage tank program.

2. Inventory reconciliation procedures for each tank should continue as already practiced at the facility to offer an additional safeguard in the detection of any product leakage that may occur at some future time.

3. Annual tank-precision tests should be scheduled.

4. A qualified maintenance company may be contracted to maintain proper working order of the electronic-monitoring components and to provide 24-hour alarm response service.

5. Motor-fuel suppliers should be advised to practice caution in the filling of tanks and in the event of overfilling, to be aware of the function and operation of the overfill-protection boxes now installed on each tank-fill tube.

7.0 LIMITATIONS

This report has limitations, and as such, it should not be construed that all possible site conditions were identified. It should be recognized that there is no guarantee this study has covered all possible environmental issues at the site. A more detailed environmental investigation is warranted, if potential future liability is of concern.

It is possible that variations in the soil or groundwater conditions could exist beyond the points explored in this investigation. Also, changes in the groundwater conditions as noted could occur at some time in the future due to variations in rainfall, temperature, regional water usage, or other factors.

LOK/CTT

The standard of services performed by CTT/LOK was conducted in a manner consistent with the level of care and skill ordinarily exercised by the industry operating under similar conditions in the State of California. No other warranty is expressed or implied.

CTT/LOK look forward to working with Riverside Cement Company on any continuation of this project and future projects. If we can provide additional services or information, please contact us.

Sincerely,

Cal Tank Testing

Doc Quinn
Manager

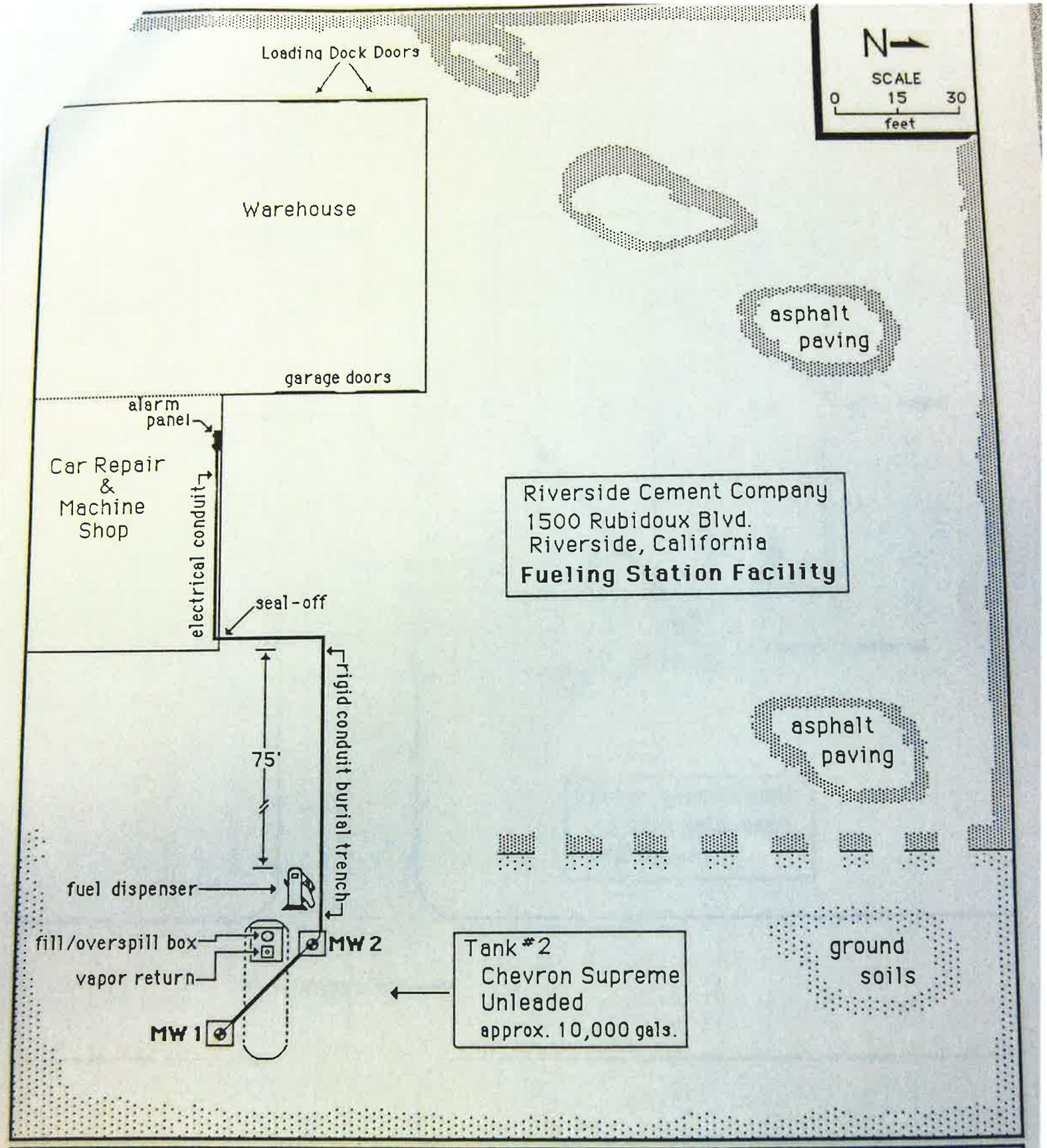
LOK Environmental Inc.

David H. Klise, R.G., C.P.G.
Director
Environmental Services

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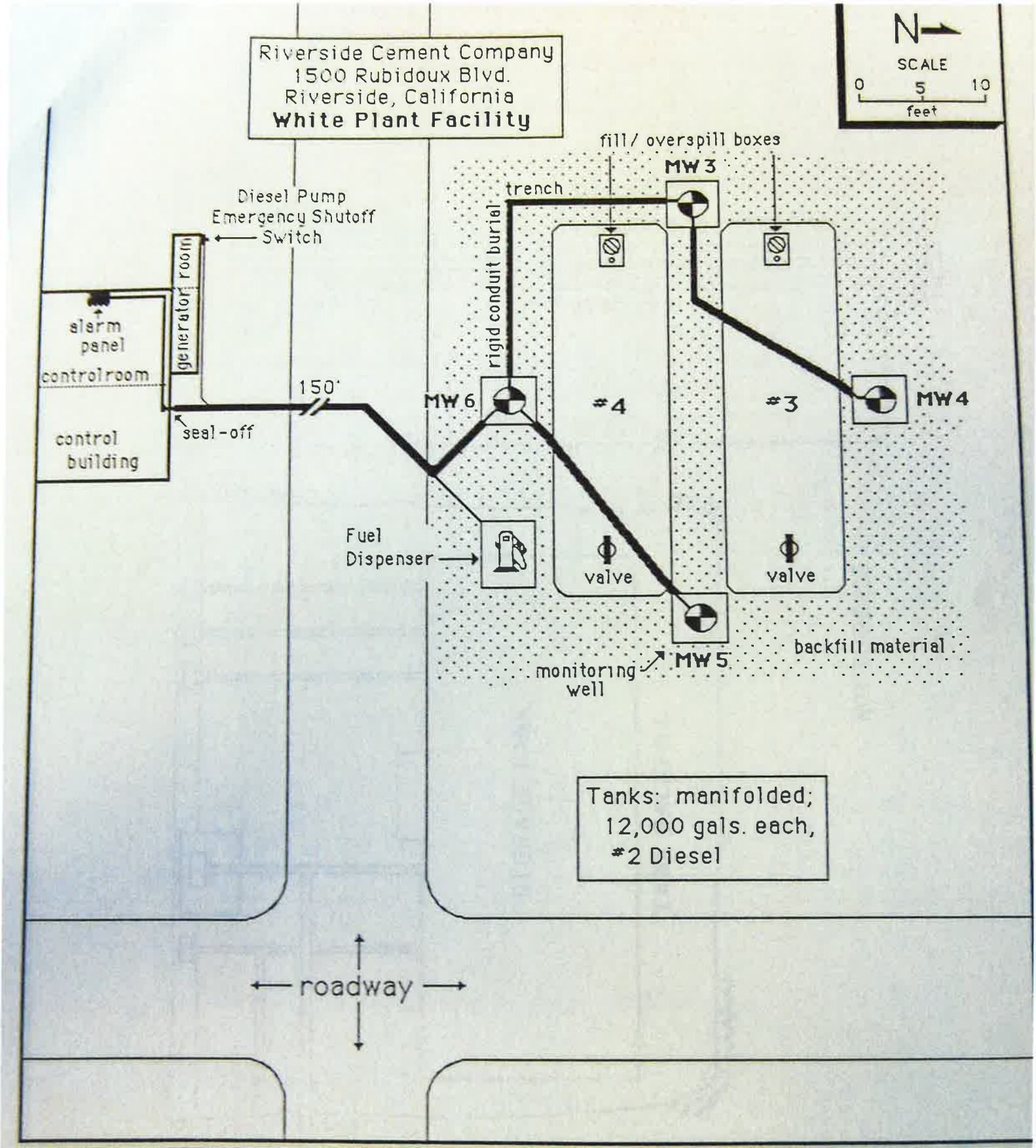






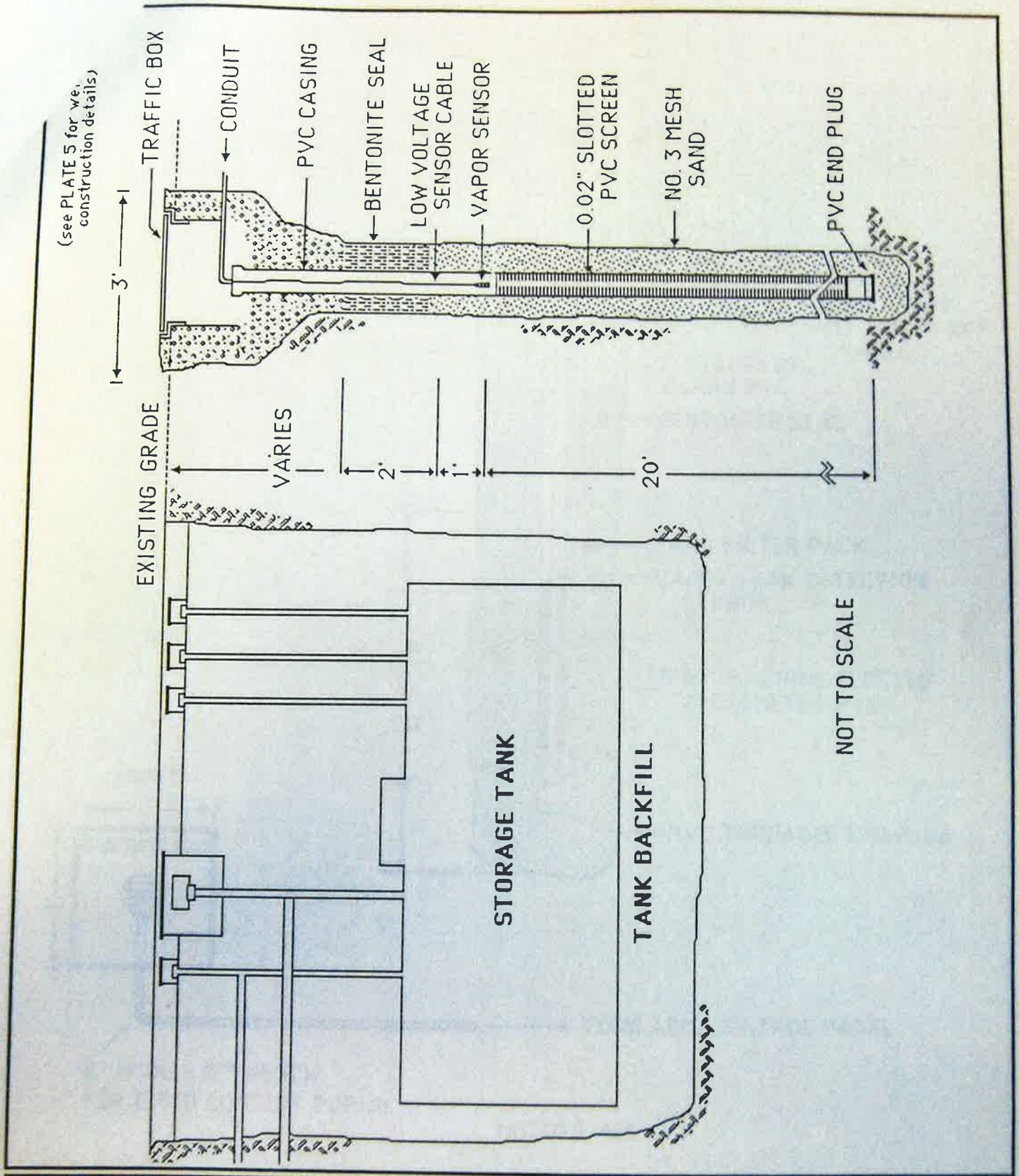
LOK Environmental, Inc. and Cal Tank Testing & Repair Co. P-1152-88 MAY 1988	RIVERSIDE CEMENT COMPANY RIVERSIDE, CALIFORNIA MONITORING WELL LOCATIONS GASOLINE-TANK SITE	PLATE 2

LOK/CTT



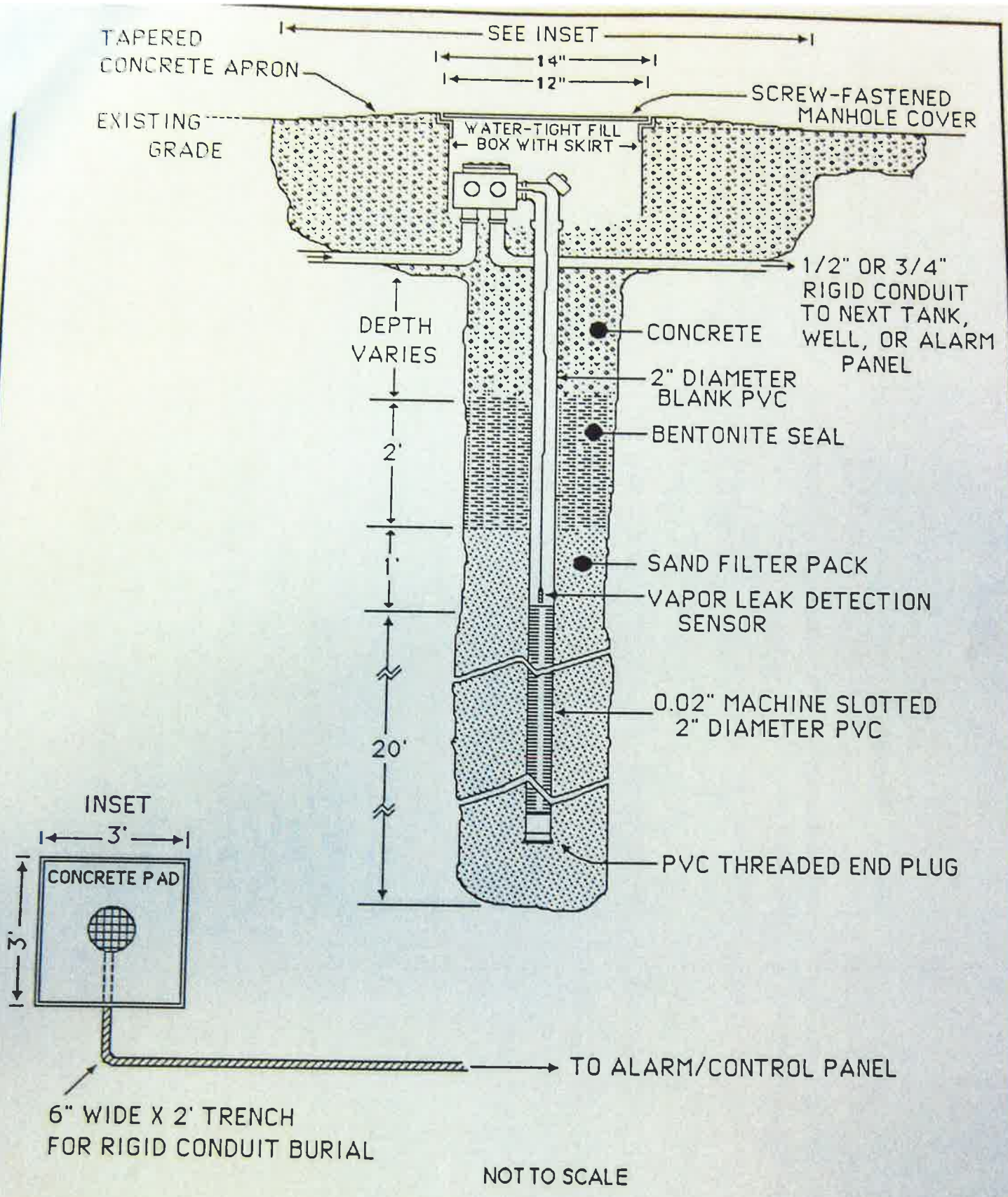
LOK Environmental, Inc. and Cal Tank Testing & Repair Co. P-1152-88 MAY 1988	RIVERSIDE CEMENT COMPANY RIVERSIDE, CALIFORNIA MONITORING WELL LOCATIONS DIESEL-TANK CLUSTER	PLATE 3

LOK/CTT



LOK Environmental, Inc. and Cal Tank Testing & Repair Co. P-1152-88 MAY 1988	RIVERSIDE CEMENT COMPANY RIVERSIDE, CALIFORNIA SECTION VIEW MONITORING WELL AND TANK	PLATE 4

LOK/CTT



LOK Environmental, Inc. and Cal Tank Testing & Repair Co. P-1152-88 MAY 1988	RIVERSIDE CEMENT COMPANY RIVERSIDE, CALIFORNIA **WELL-HEAD & VAPOR-SENSOR PROBE SCHEMATIC**	PLATE 5



h, Environmental Health Service
ous Materials Branch
FIELD LOG

DATE 8-17-8
SHEET

PROJECT NUMBER 88-117

Co

id.

TELEPHONE 683-3660

HEALTH PERSONNEL S. Stites

) on site. Tank
ng the dry ice.
into tank.
13-88 by Drain
hauled under
T 1835 E. 29th St
ok appears to be
in good condition with the only apparent evidence of leaking near the fill end, possibly overfill. Contaminated soil removed from the excavation to be treated along with the rest of the contaminated soil from the 1,000,000 gal tank. Soil samples to be taken at 2 ft and 4 ft below base of tank. Soil samples to be analyzed for TPH using EPA method 418.1 by Chemical Research Lab. Santa Maria Ca. 93455. Tank to be hauled to A.M.R Ontario Ca to be cut up for scrap. Tank inspection found 3 holes the size of quarters on fill end half way down the tank. Tank had a lot of deep pitting. Additional holes may be on the bottom of the tank, an areas that I was not able to inspect.

Health, Environmental Health Services
Hazardous Materials Branch
FIELD LOG

DATE 5-8-98
SHEET

FACILITY NAME Riverside Cement Co
ADDRESS 1500 Rubidoux Blvd
CONTACT PERSON Pat Hill
PROJECT NUMBER 98-117
TELEPHONE 613-3660
FIRE PERSONNEL
HEALTH PERSONNEL S. Stites

5-7-98 1:10 pm arrived on site. Tank had been excavated. Awaiting the dig ee. 1:48 pm dig ee being put into bucket. Tank had been cleaned on 5-13-98 by Diesel Oil Service, Rivco material hauled under manifest # 5116937 to PBT 1335 E 59th St Signal Hill Ca 90806. Tank appears to be in good condition with the only apparent evidence of leaking near the fill end. Possibly overfill. Contaminated soil removed from the excavation to be treated along with the rest of the contaminated soil from the 1000 gal tank. Soil samples to be taken at 2 ft and 4 below base of tank. Soil samples to be analyzed for TPH using EPA method 418.1 by Chemical Research Lab. Santa Maria Ca. 93455. Tank to be hauled to AME Ontario Ca to be cut up for scrap. Tank inspection found 3 holes the size of quarters on fill end half way down the tank. Tank had a lot of deep pitting. Additional holes may be on the bottom of the tank, an area that I was not able to inspect.

COUNTY OF RIVERSIDE, DEPARTMENT OF HEALTH

UNDERGROUND STORAGE TANK CLOSURE/ABANDONMENT APPLICATION

Application for closure or abandonment of Underground Storage Tanks. Applicant is to submit four (4) copies of the plans. All fees are NON REFUNDABLE and payable when the plans are submitted with this application.

88-117
PLAN CHECK NUMBER

NAME OF FACILITY	ADDRESS OF FACILITY	PHONE NUMBER
Riverside Cement Co	1500 Rubidoux Blvd	683-3660
NAME OF OWNER	ADDRESS OF OWNER	PHONE NUMBER
Gifford Hill Cement Co.	DALLAS TX.	
NAME OF OPERATOR	ADDRESS OF OPERATOR	PHONE NUMBER
R. Bruce Riesen	1500 Rubidoux Blvd	683-3660
NAME OF CONTRACTOR/CONTACT PERSON	ADDRESS OF CONTRACTOR	PHONE NUMBER
P. M. Hill	Same	Same
CONTRACTORS LICENSE TYPE & NUMBER		
N/A		

ANSWER THE FOLLOWING QUESTIONS DESCRIBING THE TANKS TO BE CLOSED OR ABANDONED. IF YOU HAVE MORE THAN FOUR (4) TANKS, PROVIDE INFORMATION ON ADDITIONAL APPLICATION FORM.

	10,000 GAL TANK 1	TANK 2	TANK 3	TANK 4
SINGLE/DOUBLE WALL TANK	Single			
TANK IN USE (YES/NO)	No Longer			
IS TANK SUSPECTED OF LEAKING (YES/NO)	NO			
AGE OF TANK (YEARS)	21+			
CONSTRUCTION MATERIAL OF TANK(S)	Steel			
HAZARDOUS SUBSTANCE STORAGE HISTORY	#2 Diesel			

Describe method of tank closure by removal, abandonment or temporary closure. Provide destination and final disposition of tank.

Removal

Dates for which the tanks are to be temporarily closed (if applicable).

4-20-88

Name of person to Contact in an Emergency	24 Hour Emergency Phone Number
Pat Hill	683-3660

APPLICANT NAME	APPLICANT SIGNATURE	DATE OF APPLICATION
Doc Quinn	Doc Quinn	

PLEASE MAKE YOUR CHECK PAYABLE TO THE COUNTY OF RIVERSIDE

CLOSURE/ABANDONMENT FEE

First Tank	~~$130.00~~	$200.00
Each Additional Tank	~~$40.00~~	$60.00

AMOUNT ATTACHED $ 60.00

TRANSACTION NO. 6048

DOH-HEH-008 (Rev. 5/87)

COUNTY OF RIVERSIDE, DEPARTMENT OF HEALTH

UNDERGROUND STORAGE TANK PLAN CHECK APPLICATION

Application for plan check of construction and modification of underground storage tanks. Applicant is to submit four complete sets of plans with an attached material list for each construction site. All fees are payable when the plans are submitted with this application. The plan check fees include all construction inspections performed by this Agency.

88-113
PLAN CHECK NUMBER

FACILITY NAME	FACILITY ADDRESS	PHONE NO.
Riverside Cement Co	1500 Rubidoux Blvd	
NAME OF OWNER	ADDRESS OF OWNER	PHONE NO.
Riverside Cement Co		
NAME OF OPERATOR	ADDRESS OF OPERATOR	PHONE NO.
Pat Hall		(714) 683-3660 ext 315
NAME OF CONTRACTOR/CONTACT PERSON	ADDRESS OF CONTRACTOR	PHONE NO.
Cal Tek Testing	3246 S. Mooney Suite 135 Visalia Ca 93277	

BRIEFLY DESCRIBE THE INSTALLATION METHOD AND TANKS:
monitoring wells and one pit 10x12

BRIEFLY DESCRIBE THE PROPOSED MONITORING PROGRAM: #3

LIST ALL HAZARDOUS SUBSTANCES THAT WERE OR WILL BE STORED IN THE TANK(S):
Diesel

ESTIMATED CONSTRUCTION START UP DATE	ESTIMATED CONSTRUCTION COMPLETION DATE
4-1-88	6-1-88
EMERGENCY CONTACT PERSON	24 HOUR EMERGENCY PHONE NO.
Pat Hall	683-3660

APPLICANT NAME (PRINT)	APPLICANT SIGNATURE	DATE
Pat Hall		4-6-88

PLEASE MAKE CHECKS PAYABLE TO COUNTY OF RIVERSIDE

PLAN CHECK FEE PER TANK:

First Tank $ ~~XXXXXX~~ $300.00

All Additional Similar Tanks $ ~~XXXXX~~ 75.00

Dissimilar Tank $ ~~XXXXXX~~ 150.00

AMOUNT ATTACHED: $ 300.00

OCR # : 5845

DECON
ENVIRONMENTAL SERVICES, INC.

July 31, 1997
Riverside Co. Environmental Health Dept.
Attn: Mr. Dan Workman

Dear Mr. Workman,

Enclosed is a packet of required certificates for the tank removal performed for the Riverside Cement Co. at 1500 Rubidoux Blvd., Riverside, CA.

The tank removal project considered of the removal of two 12K diesel tanks, one 10K gas tank, and one 250gal. kerosene tank. Although the 250gal kerosene tank was under a second permit, we hope that this summary will suffice.

The contents of this packet are as follows:

Page 1	Cover letter
Sec. 1, page 2	Copy of tank closure permits
Sec. 2, page 3	Rinsate Manifest
Sec. 3, page 4	Tank Manifest
Sec. 4, page 5	Tank Certifications
Sec. 5, page 6	Tank Disposal Certificates
Sec. 6, page 7	Chain of custody and soil analysis.

Decon Environmental Services hopes that the enclosed information is sufficient. If you find there is something we overlooked, please let us know and we will take care of it right away. I can be reached at 909-357-0559.

Sincerely,

JD Knecht
Project Manager

cc: Dennis Smith

23490 Connecticut Street, Hayward, CA 94545-1607 (510) 732-6444 Fax (510) 782-8584 CL#545726

COUNTY OF RIVERSIDE HEALTH SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS MANAGEMENT DIVISION

UNDERGROUND STORAGE TANK PERMIT FOR CLOSURE

#81502

TYPE OF PERMIT

- [XX] Removal
- [ ] Abandonment in Place
- [ ] Temporary Closure (12 Months Only)

This permit shall not be construed as to allow the violation of any law, nor does it prevent further corrections of errors found on the application, plans, or at the site. Plans must be resubmitted for approval if any additional changes are made by the applicant.

In addition to this permit, all applicable permits required by the local fire department, building department, and the air quality management district must be obtained and should be available for review at the closure site.

All tank closures must, at a minimum, comply with the California Underground Storage Tank Regulations and the appropriate section of the California Health & Safety Code.

DECON ENVIRONMENTAL (Owner/Contractor/Applicant) has applied for and is granted a permit to

REMOVE (Remove/Abandon/Temp. Close) 3 (No.) underground storage tank(s) at

RIVERSIDE CEMENT CO (Facility Name) located at

1500 RUBIDOUX BLVD. (Street Address) in RIVERSIDE (City/Town), California.

Underground tank closure inspections **must be scheduled five (5) business days in advance.** Telephone (714) 358-5055.

Doug Thompson — Permit Approved By

06/17/97 — Date

97-144 — Plan Check #

*This Permit for Closure is VALID FOR 90 DAYS from the date of approval. If no reasonable action is taken within that period, the applicant will be required to reapply for a closure permit with all pertinent fees associated.

DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS MANAGEMENT DIVISION

UNDERGROUND STORAGE TANK PERMIT FOR CLOSURE

#81502

TYPE OF PERMIT

- [X] Removal
- [ ] Abandonment in Place
- [ ] Temporary Closure (12 Months Only)

This permit shall not be construed as to allow the violation of any law, nor does it prevent further corrections of errors found on the application, plans, or at the site. Plans must be resubmitted for approval if any additional changes are made by the applicant.

In addition to this permit, all applicable permits required by the local fire department, building department, and the air quality management district must be obtained and should be available for review at the closure site.

All tank closures must, at a minimum, comply with the California Underground Storage Tank Regulations and the appropriate section of the California Health & Safety Code.

RIVERSIDE CEMENT CO. (Owner/Contractor/Applicant) has applied for and is granted a permit to

REMOVAL (Remove/Abandon/Temp. Close) 1 (No.) underground storage tank(s) at

RIVERSIDE CEMENT CO. (Facility Name) located at

1500 RUBIDOUX BLVD. (Street Address) in RIVERSIDE (City/Town), California.

Underground tank closure inspections **must be scheduled five (5) business days in advance.** Telephone (714) 358-5055.

Permit Approved By | 07-14-97 (Date) | 97-169 (Plan Check #)

*This Permit for Closure is VALID FOR 90 DAYS from the date of approval. If no reasonable action is taken within that period, the applicant will be required to reapply for a closure permit with all pertinent fees associated.

ERM-West
Environmental Resources Management

1777 Botelho Drive • Suite 260 • Walnut Creek, California 94596-5022 ☎ (415) 946-0455
4630 Campus Drive • Suite 200 • Newport Beach, California 92660-1805 ☎ (714) 852-9490
2865 Sunrise Boulevard • Suite 105 • Rancho Cordova, California 95670-6538 ☎ (916) 635-7766

Reply To:
Walnut Creek

October 3, 1986

Mr. Bruce Rieser
Riverside Cement Company
1500 Rubidoux Boulevard
Riverside, CA 92502

SUBJECT: Report of Results for the Investigation of Subsurface Conditions at a Fuel Oil Storage Tank, Riverside Cement Crestmore Plant.

Dear Mr. Rieser:

The purpose of this letter report is to describe the drilling and sampling activities and document the results of the subsurface soil investigation for the fuel storage tank at the Riverside Cement Crestmore Plant in Riverside, California. Drilling and sampling activities were performed on September 4 and 5, 1986.

SITE LOCATION AND DESCRIPTION

The Riverside Cement Crestmore Plant is located at 1500 Rubidoux Boulevard in Riverside, California. Figure 1 shows the location of the plant. Figure 2 provides a site plan indicating the two drilling locations. Both locations were adjacent to the large tank which historically contained fuel oil. The two borings were slant drilled beneath the bottom of the tank. Photographs documenting the sampling areas are attached in Appendix A.

FIELD ACTIVITIES

Prior to drilling and sampling, two areas were selected and "cleared" (Figure 2) on approximately opposite sides of the fuel oil tank. Clearing consisted of excavating and removing a portion of a compacted soil berm that supports the concrete walls of the tank (refer to photographs in Appendix A).

A truck-mounted drilling rig was used to perform the subsurface soil sampling beneath the tank. The drilling rig was equipped with 8-inch diameter hollow-stem continuous flight augers. Use of these hollow-stem augers ensured sample integrity by preventing soils from caving to the bottom of the hole during



FIGURE 1 RIVERSIDE CEMENT PLANT LOCATION MAP

GIFFORD HILL

ERM-WEST 9/86

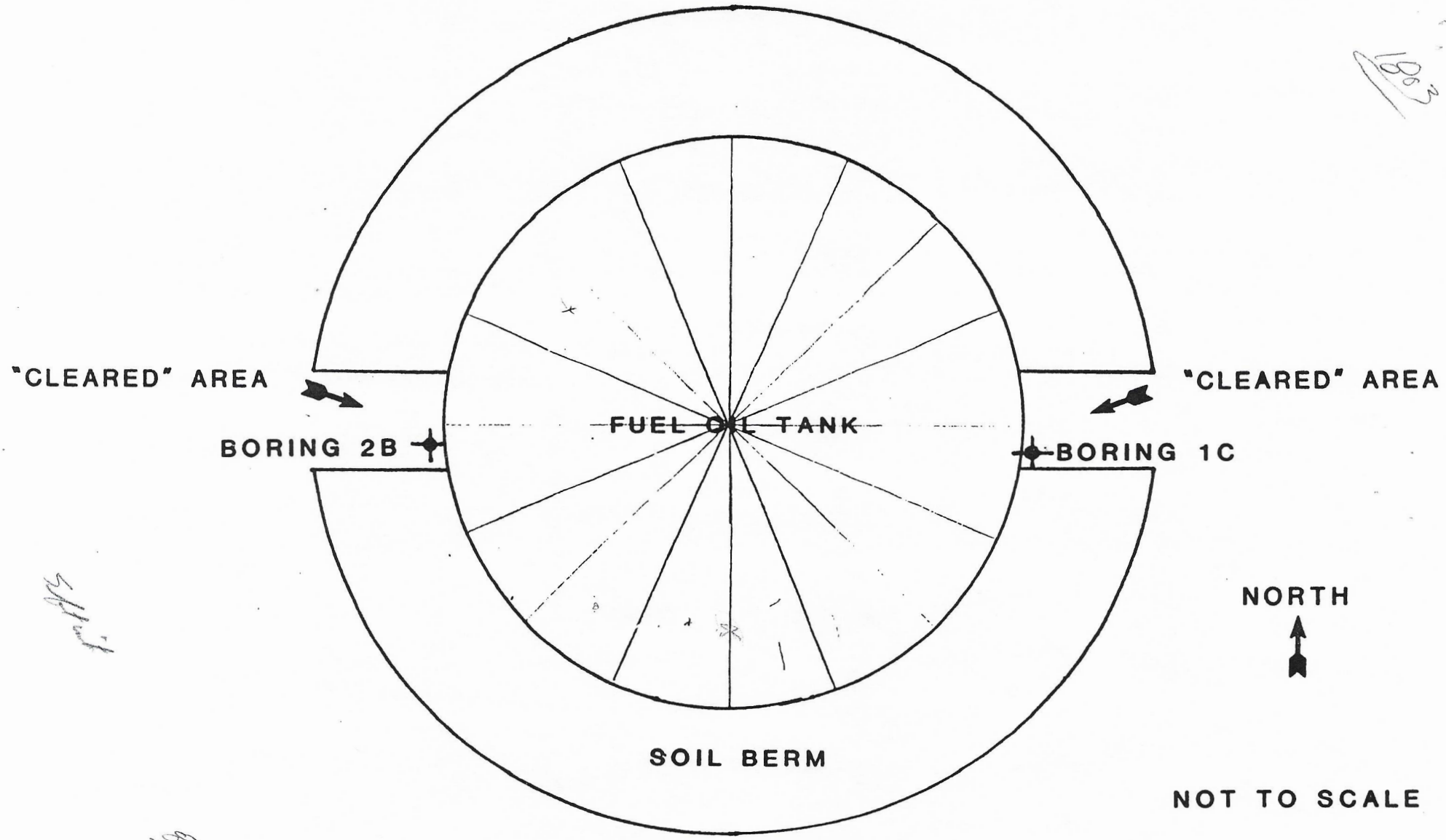


FIGURE 2 SCHEMATIC OF FUEL OIL TANK AND BORING LOCATIONS

ERM-WEST 9/86

drilling. Prior to drilling each hole, all sampling equipment was steam cleaned to prevent cross-contamination between borings.

Two slant borings (#1C and #2B) were drilled at 30° angles (from vertical) to desired depths beneath the tank (Figure 3). Several drilling attempts (Borings #1A, 1B, and 2A) were made prior to successfully attaining the desired depths. Boring #1C was drilled to a maximum auger depth of 34 feet below the east side of the tank; boring #2B was drilled to a depth of 39 feet below the west side of the tank. These maximum drilling depths corresponded to depths beneath the outside bottom edge of the tank.

To collect soil samples, Shelby tubes (30" x 2" dia.) were pushed ahead of the auger. An undisturbed soil core was retained in each tube. Shelby tubes containing soil samples were cut into several sections using a pipe cutter. Exposed ends were visually classified for lithology and then covered with Teflon film and plastic caps. Shelby tube sections selected for laboratory analysis were labeled and placed on ice in a cooler. Samples were shipped overnight to the laboratory accompanied by a completed chain of custody form (copy contained in Appendix B).

The types of soils encountered from each subsurface boring were classified visually according to the Unified Soil Classification (USC) system. A key to the USC system precedes the drill logs recorded for each drill hole, presented in Appendix C. Drill logs were based upon information obtained from drill cuttings, actual soil samples, and observed changes in drilling characteristics.

In addition to the soil samples collected, a sample of the liquid fuel oil from the tank was collected and shipped to the laboratory along with the soils. This fuel oil was obtained to represent a standard for comparison during analysis.

ANALYTICAL RESULTS

Five soil samples were submitted to the laboratory (Anlab Analytical Laboratory, Sacramento, California) for total petroleum hydrocarbon analyses. Samples were shipped and received on September 8, 1986. Analyses were performed on a rush basis. The analytical data from the laboratory are presented in Table 1. Original laboratory test results are contained in Appendix D.

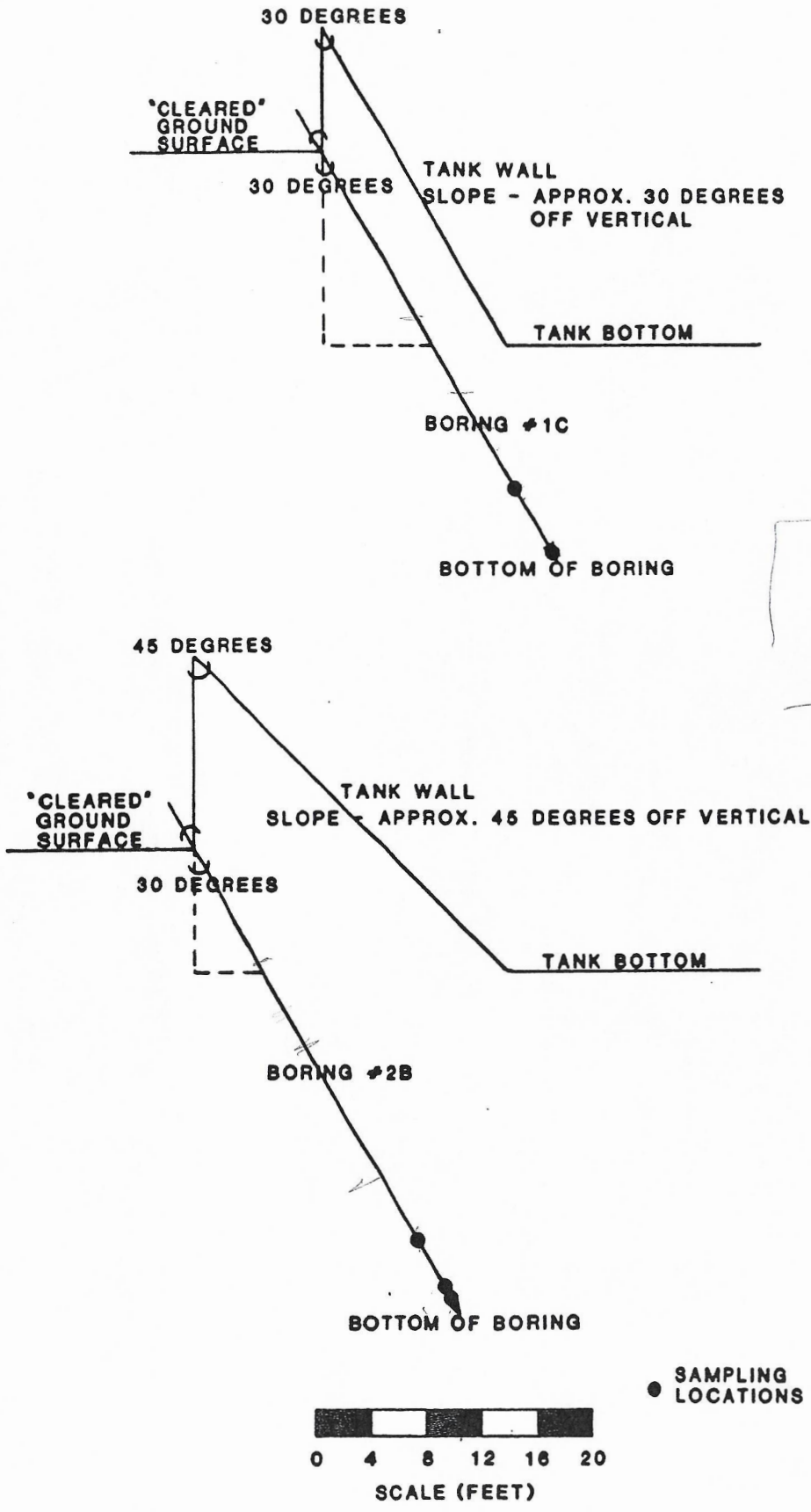


FIGURE 3 - SLANT BORING GEOMETRY BENEATH TANK

TABLE 1
ANALYTICAL RESULTS OF
TOTAL PETROLEUM HYDROCARBON
ANALYSES

SAMPLE IDENTIFICATION	SAMPLE DEPTH (feet)	TOTAL PETROLEUM HYDROCARBONS (mg/kg)*
Boring 1C	28.0 - 28.5	410
Boring 1C	33.5 - 34.0	<50
Boring 2A	32.5 - 33.0	<50
Boring 2A	37.5 - 38.0	<50
Boring 2A	38.0 - 38.5	<50

* Based on fuel oil "standard" submitted by ERM-West along with the samples

FINDINGS

Several findings are apparent from this investigation:

- only one sample (Boring 1C: 28.0'-28.5') contained total petroleum hydrocarbons (TPHC) above detection limits
- the concentration (410 mg/kg) detected in the sample mentioned above is less than the in-place tank abandonment guide line value (500 mg/kg), as per Environmental Health Services Division, Riverside County Health Department.
- based on discussions with the laboratory, soil sample chromatograms corresponded closely with the fuel oil standard collected from the tank.
- clayey-sand soils were encountered directly beneath the tank, which partially limited TPHC movement.
- dense clay soils were present at depths of about 15 to 25 feet below the tank; these soil appeared to restrict vertical TPHC movement.

We trust this letter report meets your current needs. Please call me if you have any questions or need further information.

Very truly yours,

ERM-West

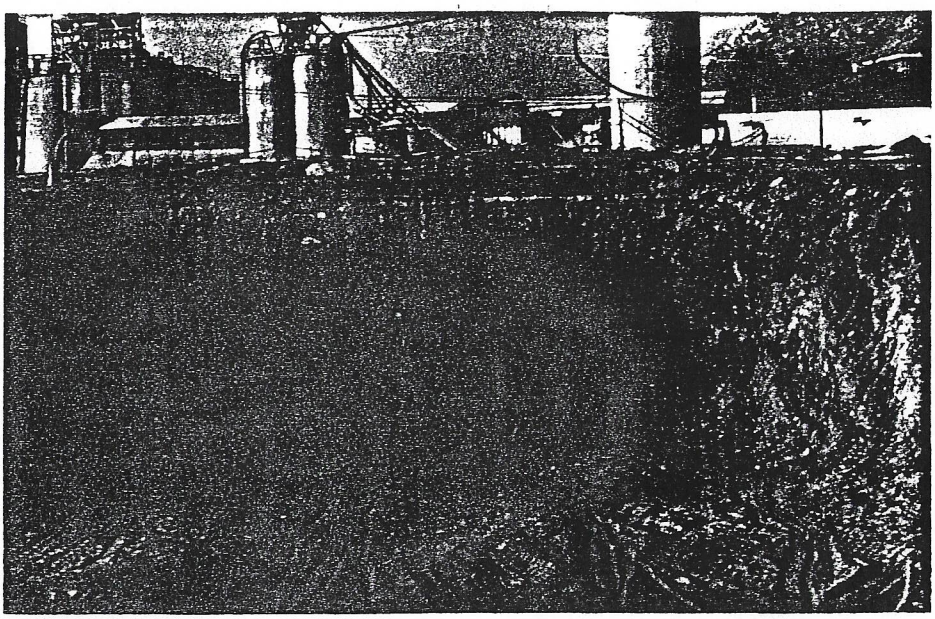
Richard W. Stone, Ph.D., P.E.
President

Jeffrey L. Rubin
Certified Professional
Soil Scientist, #1134

RWS: lal

APPENDIX A

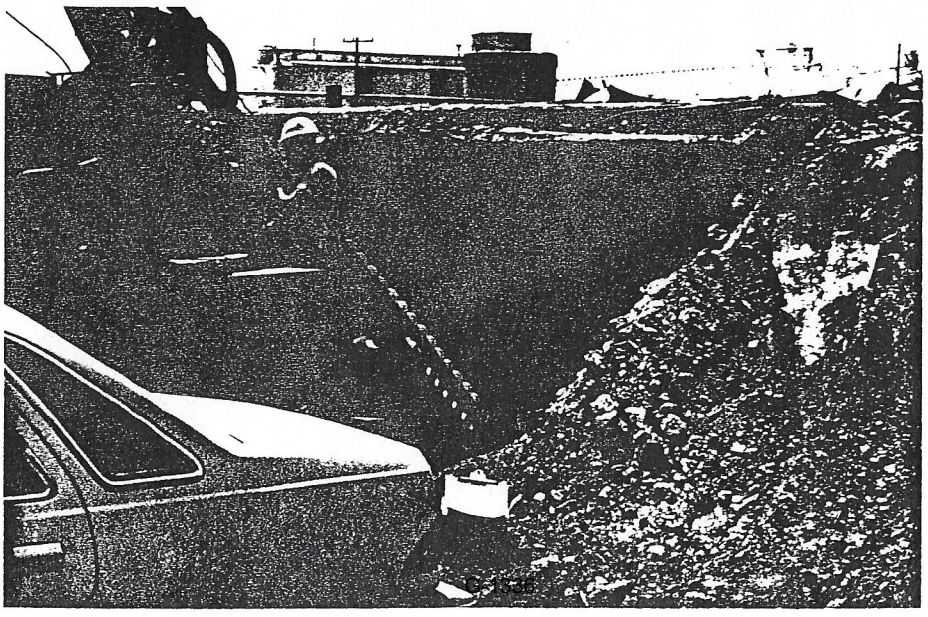
Photographs of the Drilling and Sampling Locations



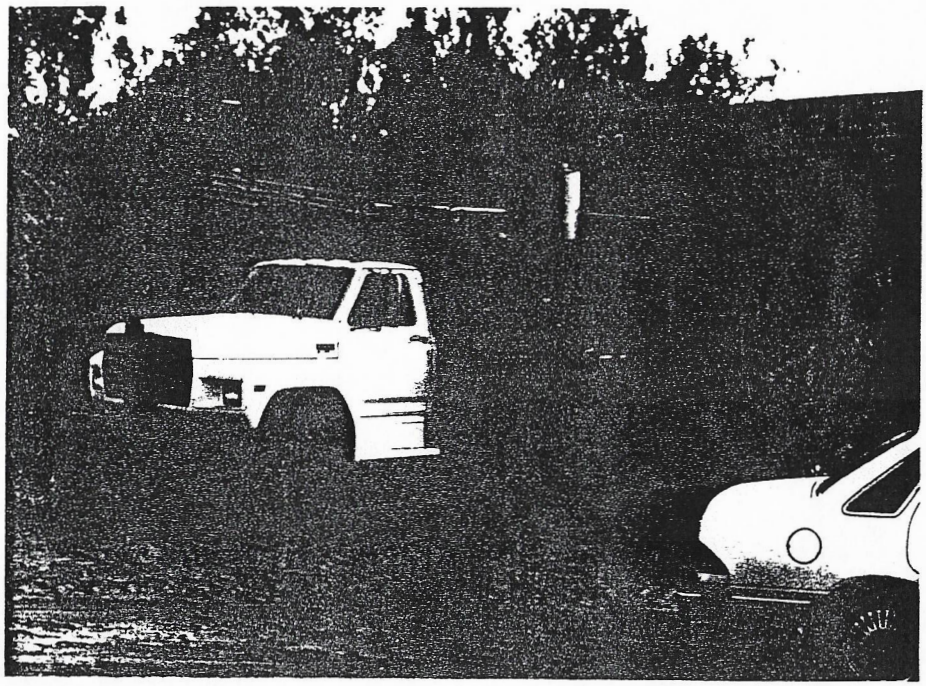
"cleared" area for drilling on east side of tank



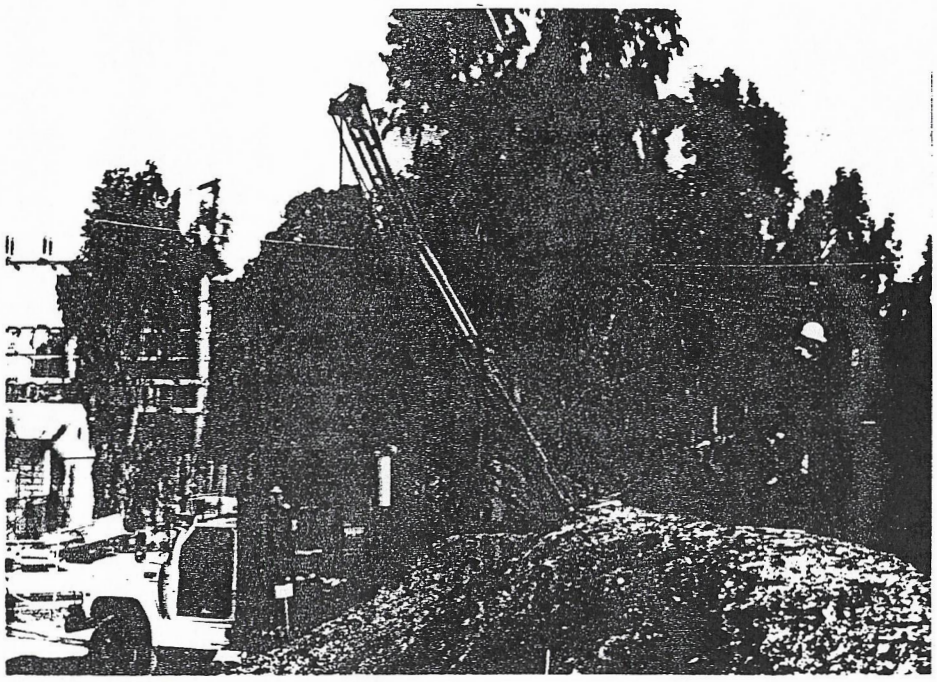
slant boring on east side of tank



slant boring on east side of tank (closeup)



"cleared" area
for drilling on
west side of tank



slant boring on
west side of tank

APPENDIX B

Chain of Custody Records

...TN - JEFF RUBIN

West
...ntal Resources Management
...Botelho Drive
260
...t Creek, California 94596-5022
...946-0455

ATTN: ROGER ELLIOT

NOTE: LANDELLS, MPLY AND ...MMUND

Client: GIFFORD HILL — Project Location: RIVERSIDE, CA

Sampler(s): JEFF RUBIN — Project No./Phase: 178.02

Date: 9/4/86 — No. of Samples Collected: 2 SOIL / 1 STANDARD (LIQUID) TODAY (9/4/86)

Weather: HOT, CLEAR, SMOGGY, ≥ 90°F, NO CLOUDS

PAGE 1 OF 2

NOTE: SUBSAMPLE FROM ONLY BOTTOM OF EACH TUBE

...ion	Sample ID# (USE ANY OF THESE replicates)	Time	Sample Type: Comp.	Grab	Soil: Comp.	Grab	Volume	No. of Contrs./ Cntnr. Type	Preservative	Iced (Y/N)	Sampling Method	Analys
...NDARD ...L OIL ...NK	REPLICATE 1	2:00P		✓			1-40ml VOA	1 VOA GLASS	SODIUM THIOSULFATE	Y	DROPPED VOA INTO TANK	TOTAL PETROLEUM HYDRO - CARBONS WITH FUEL CHARACTER-IZATION
...NDARD ...L OIL ...LDING	REPLICATE 2	2:00P		✓			1-40ml VOA	1 VOA GLASS	SODIUM THIOSULFATE	Y	DROPPED VOA INTO BUILDING SUMP	
...NDARD ...ND PIPE ...L BUILDING	REPLICATE 3	2:00P		✓			1-40ml VOA	1 VOA GLASS	SODIUM THIOSULFATE	Y	DROPPED VOA INTO SUMP AND STANDPIPE	
[redacted]												
...ING ...LC	28.0'-28.5'	6:30P				✓	APPROX ½ lb.	1-2" DIA X 6" CUT SHELBY	NONE	Y	PUSHED SHELBY @ DESIRED DEPTH	TOTAL PETROLEUM HYDRO - CARBONS WITH FUEL CHARACTER-IZATION
...ING ...LC	33.5'-34.0'	6:45P				✓	APPROX ½ lb.	1-2" DIA X 6" CUT SHELBY	NONE	Y	PUSHED SHELBY @ DESIRED DEPTH	

...l Notes (Results of field ...urements, well purging data, ...al conditions, etc.):
BOTTOM OF 2 SOIL SAMPLES CONTAINED GREATEST DEGREE OF HYDROCARBON ODOR

SUBSAMPLE @ LAB FROM BOTTOM END OF SAMPLES

CUSTODY RECORD — Signature, Date/Time

Relinquished: J. Rub 9/8/86 9:00A
Received:
Relinquished:
Received:
Relinquished:
Received:
Relinquished:
Received:
Relinquished:
Received:
Relinquished:

G-1339

Name and Address of Receiving Laboratory

ANLAB ANALYTICAL LABORATORY
1914 "S" STREET
SACRAMENTO, CA.
95814
(916) 447-2946

...NV TO ATTN OF: JEFF RUBIN

FIELD SAMPLING DATA AND CHAIN OF CUSTODY

LANDELLS, RIPLEY, AND

...-West
...ental Resources Management
...Y Botelho Drive
...) 260
...ut Creek, California 94596-5022
...) 946-0455

Client: DIAMOND

Project Location: RIVERSIDE, CA.

Sampler(s): JEFF RUBIN

Project No./Phase: 178.02

Date: 9/5/86

No. of Samples Collected: 30 SOIL (TODAY 9/5/86)

Weather: HOT, CLEAR, SMOGGY, ~90°F, NO CLOUDS

NOTE % ATTN: ROGER ELLIOTT

PAGE 2 OF 2

NOTE: SUBSAMPLE FROM ONLY BOTTOM END OF EACH TUBE

...ple tion	Sample ID#	Time	Sample Type: Water Comp.	Water Grab	Soil Comp.	Soil Grab	Volume	No. of Contrs./ Cntnr. Type	Preservative	Iced (Y/N)	Sampling Method	Analyses
...RING 2B	32.5'-33.0'	11:30A				✓	Approx ½ lb	1-2" DIA X 6" CUT SHELBY	NONE	Y	PUSHED SHELBY TO DESIRED DEPTH	TOTAL PETROLEUM
...RING 2B	37.5'-38.0'	11:40A				✓	Approx ½ lb.	1-2" DIA X 6" CUT SHELBY	NONE	Y	PUSHED SHELBY TO DESIRED DEPTH.	HYDRO-CARBONS
...RING 2B	38.0'-38.5'	11:40A				✓	Approx ½ lb.	1-2" DIA X 6" CUT SHELBY	NONE	Y	PUSHED SHELBY TO DESIRED DEPTH	(WITH FUEL CHARACTERIZATION)

...d Notes (Results of field ...urements, well purging data, ...ual conditions, etc.):

...BOTTOM OF ALL 3 SOIL ...AMPLES WERE EXHIBITING ...LEAST SOME ODOR

...SAMPLE CLAR FROM BOTTOM ...ND OF SAMPLES

CUSTODY RECORD

	Signature, Date/Time
Relinquished:	9/8/86 9:00A
Received:	
Relinquished:	
Received:	
Relinquished:	
Received:	
Relinquished:	
Received:	
Relinquished:	
Received:	
Relinquished:	

Name and Address of Receiving Laboratory

ANLAB ANALYTICAL LABORATORY
1914 "S" STREET
SACRAMENTO, CA.
95814
(916) 447-2946

...6-1340

APPENDIX C

Drilling Logs

APPENDIX C

KEY TO DRILLING LOGS

Information on the types of soil encountered while drilling and the depths at which these soils were found is contained in the drilling logs. The drilling logs are based upon information from drill cuttings, actual soil samples, and changes in drilling characteristics. A description of key terms used in the logs is presented below.

Soil Boring Designation. Each drilling site is designated by a unique number.

Depth. Measured in feet below surface.

Recovery. Approximate amount of soil recovered in sampler or Shelby tube for given sample interval.

Sample Interval. Soil samples retained for analysis at indicated interval are marked by an "X".

Description. The texture, color, and moisture content of soils were described, plus any other significant observations.

USC Soil Type. Soils were classified visually in the field according to the Unified Soil Classification (USC) system using ASTM Method D2488-69. The USC system is presented in the table on the following page.

"BOH". Bottom of hole indicating total depth in feet below land surface.

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAMES
COARSE–GRAINED SOILS MORE THAN 50% RETAINED ON NO. 200 SIEVE*	GRAVELS 50% OR MORE OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS	GW	WELL–GRADED GRAVELS AND GRAVEL–SAND MIXTURES, LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS AND GRAVEL–SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES	GM	SILTY GRAVELS, GRAVEL–SAND–SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL–SAND–CLAY MIXTURES
	SANDS MORE THAN 50% OF COARSE FRACTION PASSES NO. 4 SIEVE	CLEAN SANDS	SW	WELL–GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS AND GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES	SM	SILTY SANDS, SAND–SILT MIXTURES
			SC	CLAYEY SANDS, SAND–CLAY MIXTURES
FINE–GRAINED SOILS 50% OR MORE PASSES NO. 200 SIEVE*	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS		ML	INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDS OR SILTS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS			PT	PEAT, MUCK AND OTHER HIGHLY ORGANIC SOILS

* BASED ON THE MATERIAL PASSING THE 3 INCH (75 mm) SIEVE.

Unified Soil Classification

Environmental Resources Management **Drilling Log**

Project: LANDELLS, RIPLEY, AND DIAMOND Owner: RIVERSIDE CEMENT CRESTMORE PLANT

Location: RIVERSIDE JOB WO. Number: 178.02

Well Number: BOR. NO #1A Total Depth: ≥18' Diameter: 8"

Surface Elevation: — Water Level: Initial: — 24-hrs: —

Screen: Dia. — Length — Slot Size —

Casing: Dia. — Length — Type —

Drilling Company: KLEINFELDER Drilling Method: HOLLOW-STEM

Driller: GARY BUSS JAKE Log By: JLR Date Drilled: 9/4/86

Sketch Map: B#1A (FAR SIDE); N; ENTRY GATE

Notes: 45° ANGLE BELOW TANK (ANGLE TO WEST)

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
				LOGGED HOLE FROM CUTTINGS every 5'. ← APPROX 6-7' BELOW TANK SURFACE (TOP)
0		LOGGED HOLE BY CUTTINGS (5')	(SC)	CLAYEY SAND, MED-FINE, SOME COARSE (½"-1") GRAVEL, SLIGHTLY MOIST, BROWN (LIGHT), SOME BLACK "CHARCOAL"-LIKE STREAKS, NO APPARENT ODOR, NO STAINING
1				
2				DRILLED INTO FINE CLAYEY SAND, SLIGHTLY MOIST, SOFT, SOME GRAVEL (≤1") DARK GRAY BROWN. NO ODOR, NO STAINING
3				DRILLED TO 5' (ON ANGLE)
4				(CUTTINGS more SANDY, DARKER @ 5' (GRAY COLORED)
5			(SC)	— DRILLING HARD, CUTTINGS VERY "HOT" — CLAYEY SAND, FINE, SOME MED GRAVEL (¼"-½"), SLIGHTLY MOIST, BROWN (LIGHT), NO APPARENT STAINING, NO ODOR.
6				(DRILLED TO 10')
7				CUTTINGS DARKER BROWN, GRAY-BLACK FINE CLAYEY SAND, CUTTINGS "HOT"
8				DRY → SLIGHTLY MOIST
9				FEW TO NO GRAVELS, CUTTINGS LIGHTER BROWN @ about 10'
10			(SC)	CLAYEY SAND (AS ABOVE), FINE, FEW SMALL (¼") GRAVELS, DRY TO SLIGHTLY MOIST, LOOSE, SOFT, LIGHT BROWN, NO APPARENT ODOR, NO APPARENT STAINING
11				DRILLED TO 15'
12				CUTTINGS DRY, CLAYEY SAND, some SMALL (1/4") GRAVELS
13				

Environmental Resources Management — **Drilling Log**

Project: LANDELLS, RIPLEY, AND DIAMOND — Owner: RIVERSIDE CEMENT CRESTMORE PLANT

Location: RIVERSIDE, CA — JOB W.O. Number: 178.02

BOR. NG Well Number: #1A — Total Depth: ≈18' — Diameter: 8"

Surface Elevation: — — Water Level: Initial: — — 24-hrs.: —

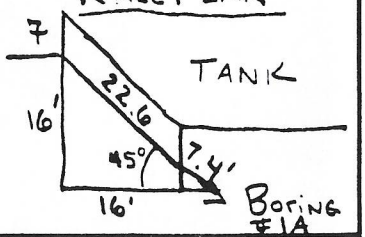
Screen: Dia.: — Length: — Slot Size: —

Casing: Dia.: — Length: — Type: —

Drilling Company: KLEINFELDER — Drilling Method: —

Driller: JAKE GARY BUSS — Log By: JLR — Date Drilled: 9/4/86

Sketch Map: 45° SLOPED WALL PLAN



Notes: see p① (45° DRILL HOLE)

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
14		LOGGED HOLE BY CUTTINGS		PAT HILL (RIVERSIDE CEMENT) SAID THAT "CHARCOAL" WOULD BE COAL (OLD STOCKPILE) CUTTINGS APPEAR AS ABOVE, CLAYEY SAND, LIGHT BROWN, DRY, SOFT, FEW GRAVELS
15			(SC)	CLAYEY SAND (AS ABOVE), MED-FINE, LIGHT BROWN, SOME SMALL GRAVELS (1/4"-1/2" MAX) DRY-SLIGHTLY MOIST, LOOSE, SOFT, NO APPARENT STAINING OR DISCERNABLE ODOR
16				
17				HIT ROCK @ ≈ 20.0' - MOVED HOLE TO RIGHT 5' - DRILL HOLE (LITHOLOGICALLY) APPEARED SIMILAR TO ABOVE FROM CUTTINGS - HOWEVER - DISTINCT PETROLEUM HYDROCARBON ODOR DETECTED @ 5'-8' IN #1B
18				
19				
20				BOH ≈ 18' → DRILLED #1B 5' TO RIGHT
21				
22				BOH ≈ 18'
23				(NO WATER ENCOUNTERED) (BACKFILL W/ CUTTINGS)
24				(ROCK @ BOTTOM MAY HAVE BEEN UNDERSIDE OF TANK)
25				
26				

27

Environmental Resources Management **Drilling Log**

Project LANDELLS, RIPLEY AND DIAMOND Owner RIVERSIDE CEMENT CRESTMORE PLANT

Location RIVERSIDE, CA Job W.O. Number 178 02.

Well Number BORING # 1B Total Depth ≈ 13 0' Diameter 8"

Surface Elevation — Water Level: Initial — 24-hrs. —

Screen: Dia. — Length — Slot Size —

Casing: Dia. — Length — Type —

Drilling Company KLEINFELDER Drilling Method HOLLOW STEM

Driller GARY BUSS/JAKE Log By JLR Date Drilled 9/4/86

Sketch Map

SEE BORING # (1A)

Notes 5' TO RIGHT OF BORING # 1A

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures) (LOGGED HOLE From CUTTINGS)
				APPROX G-(7') BELOW TANK SURFACE EVERY 5')
1		LOGGED HOLE BY CUTTINGS (5')	(SC)	CLAYEY SAND, MED FINE, Some COARSE (½"-1") GRAVEL, SLIGHTLY MOIST, BROWN (LIGHT), Some BLACK "COAL" LIKE STREAKS NO APPARENT ODOR OR STAINING
2				
3				DRILLED TO 5.0'
4				
5			(SC)	AS ABOVE, DRIER, NO GRAVELS
6				DARK GREY-BROWN CLAYEY-SAND Some SMALL (¼") GRAVELS, SOFT, LOOSE SLIGHTLY MOIST, CUTTINGS "HOT" DISTINCT PETROLEUM HYDROCARBON ODOR - MAY HAVE STAINED THE SOIL TO DARKER COLOR, BUT NOT NOT DISTINCT.
7				
8				
9				DRILLED TO 10'
10			(SC)	AS ABOVE, CLAYEY SAND, DRY, NO APPARENT STAINING OR ODOR
11				
12				
13				HIT ROCK @ 12-13' - PULLED OUT AND DRILLED @ 30° ANGLE BORING # 1C

(NO WATER) (BACKFILL W/ CUTTINGS) (ROCK @ BOTTOM)

G-1946

Environmental Resources Management — **Drilling Log**

LANDELLS, RIPLEY AND

Project DIAMOND Owner RIVERSIDE CEMENT-Crestmore

Location RIVERSIDE, CA J013 W.O. Number 178 02

Well Number BORING #1C Total Depth 34.0' Diameter 8"

Surface Elevation — Water Level: Initial N/A 24-hrs. —

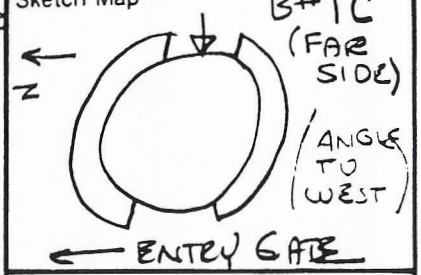
Screen: Dia. — Length — Slot Size —

Casing: Dia. — Length — Type —

Drilling Company KLEINFELDER Drilling Method HOLLOW STEM

Driller CARY BUSS JAKE Log By JLR Date Drilled 9/4/86

Sketch Map



Notes 30° ANGLE SLANT BORING 5' LEFT OF BORING #1

LOGGED FROM CUTTINGS EVERY 5'

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
0				APPROX 6'-7' BELOW TANK SURF.
1–4		LOGGED BY CUTTINGS (5')	(SC)	CLAYEY SAND - LIKE #1A & 1B, SOME COARSE GRAVELS (1/2"), ONLY SLIGHTLY MOIST, LIGHT BROWN, NO APPARENT ODOR, NO STAINING SOFT, LOOSE DIFFICULT DRILLING - "HOT" CUTTINGS
5–9			(SC)	SAME TO 10.0'
10–13			(SC)	AS ABOVE DRILLED TO 15.0' - NO APPARENT ODOR OR STAINING

Environmental Resources Management — **Drilling Log**

Project LANDELLS, RIPLEY AND DIAMOND — Owner RIVERSIDE CEMENT CRESTMORE PLANT

Location RIVERSIDE, CA — Job No. Number 178.02

Boring Well Number #1C — Total Depth 34.0' — Diameter 8"

Surface Elevation — Water Level: Initial N/A — 24-hrs.

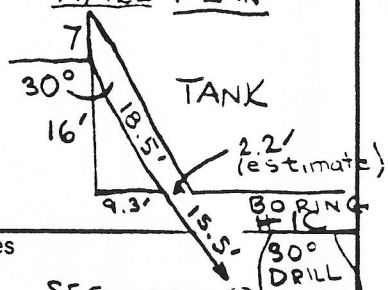
Screen: Dia. — Length — Slot Size —

Casing: Dia. — Length — Type —

Drilling Company KLEINFELDER — Drilling Method HOLLOW STEM

Driller GARY BUSS JAKE — Log By JLR — Date Drilled 9/4/86

Sketch Map 60° SLOPED WALL PLAN



Notes: SEE PAGE (1)

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
14		LOGGED HOLE BY CUTTINGS (5')	(SC)	CLAYEY GRAVELLY SAND (GRAVELS ≤ ¼"), SOFT, MOIST, DARK GRAY-BROWN, NO ODOR NO APPARENT STAINING. - CUTTINGS WARM.
15				
16				DRILLED TO 20'
17				
18				
19				
20			(SC)	AS ABOVE, more GRAVEL (LARGER ≈ ½"-1"), more MOIST, NO apparent STAINING, NO odor DRILLING INTO more GRAVELS.
21				
22				DRILLED TO 25'
23				
24				
25			(SC)	More SANDY, LESS CLAY, GRAVEL ½" AS ABOVE NO ODOR, NO STAINING - GRAVELS ≤ 1" GRAVELS MUCH LARGER
26				

27

Environmental Resources Management — **Drilling Log**

Project: LANDELLS, RIPLEY, AND DIAMOND — Owner: RIVERSIDE CEMENT CRESTMORE PLANT

Location: RIVERSIDE, CA — Job/WO. Number: 178.02

Boring/Well Number: #1C — Total Depth: 34.0' — Diameter: 8"

Surface Elevation: — — Water Level: Initial: N/A — 24-hrs.: —

Screen: Dia.: — — Length: — — Slot Size: —

Casing: Dia.: — — Length: — — Type: —

Drilling Company: KLEINFELDER — Drilling Method: HOLLOW STEM

Driller: GARY BUSS — Log By: JLR — Date Drilled: 9/4/86

Sketch Map: see pp ① AND ②

Notes: see p ①

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
28	PUSHED SHELBY TUBE 24" RECOV 20"	LOGGED HOLE BY CUTTINGS	(SP)	GRAVELLY SAND, GRAY, SOFT, MOIST, FAINT ODOR, NO STAINING (GRAVELS 1/2") LOOSE, CLEAN SAND - (ODOR @ BOTTOM OF SAMPLE)
29				
				(SAND/CLAY TRANSITION ZONE)
30			SP	SAME AS ABOVE - more GRAY - FAINT HYDROCARBON ODOR FROM CUTTINGS @ ± 30' (med fine SAND)
31				GRAVELLY SAND, SOFT, LOOSE, SLIGHTLY moist GRAY, FAINT HYDROCARBON ODOR, NO STAINING
32	PUSHED SHELBY TUBE 24" RECOV 24"		CL	CLAY, GRAY, DENSE, COMPACT, SLIGHTLY moist, MODERATELY STRONG HYDROCARBON ODOR, SINGLE DARK BLACK STAINED STREAK - HYDROCARBON ODOR ESPECIALLY @ BOTTOM OF SAMPLE
33				(AS ABOVE)
34				BOH = 34.0' NO WATER ENCOUNTERED (BACKFILL W/CUTTINGS)

SHELBY PUSH @ 27.0' - 29.0'
32.0' - 34.0'

Environmental Resources Management **Drilling Log**

Project: LANDELLS, RIPLEY, AND DIAMOND Owner: RIVERSIDE CEMENT CRESTMORE PLANT

Location: RIVERSIDE, CA JOB Number: 17802

Well Number: BORING # 2A Total Depth: 18' Diameter: 8"

Surface Elevation: — Water Level: Initial: N/A 24-hrs.: —

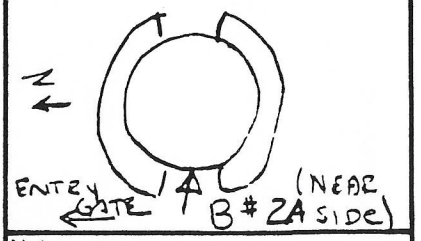
Screen: Dia.: — Length: — Slot Size: —

Casing: Dia.: — Length: — Type: —

Drilling Company: KLEINFELDER Drilling Method: HOLLOW STEM

Driller: GARY BOSS Log By: JLR Date Drilled: 9/5/86

Sketch Map



Notes: 30° ANGLE BELOW TANK ANGLED TO EAST

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
0				LOGGED HOLE FROM CUTTINGS EVERY 5'
				← APPROX 13-(14') BELOW TANK SURFACE (TOD)
1		LOGGED HOLE W/ CUTTINGS	(SC)	CLAYEY SAND, SMALL GRAVELS, DRY, SOFT, LOOSE LIGHT BROWN, NO ODOR, NO STAINING
2				DRILLED TO 5.0'
3				
4				
5			(SC)	CLAYEY SAND, SMALL GRAVELS (1/4") DARK GRAY, SOFT, DRY, NO ODOR, NO STAINING, CUTTINGS ARE "HOT" from hole (LOOSE)
6				
7				Color changed to gray-brown @ 7-8'
8				DRILLED TO 10.0'
9				
10			(SC)	CLAYEY-SAND, SMALL GRAVELS (1/4"), GRAY, SOFT, LOOSE, SLIGHTLY MOIST, NO ODOR, NO STAINING
11				
12				INCREASING MOISTURE W/ DEPTH
13				DRILLED TO 15.0'
				13'-15' LARGER GRAVELS 1/2" - 1" IN CUTTINGS

Environmental Resources Management **Drilling Log**

Project LANDELLS, RIPLEY, AND DIAMOND Owner RIVERSIDE CEMENT CRESTMORE PLANT

Location RIVERSIDE, CA JOB W.O. Number 178.02

Well Number BORING #2A Total Depth 18' Diameter 8"

Surface Elevation — Water Level: Initial N/A 24-hrs. —

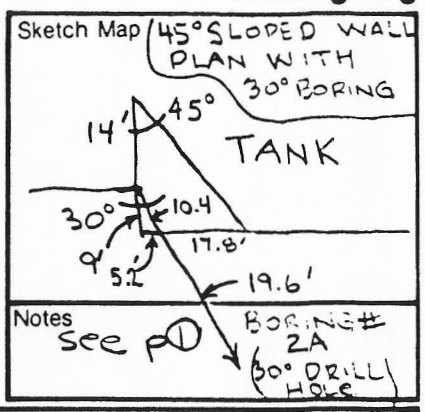
Screen: Dia. — Length — Slot Size —

Casing: Dia. — Length — Type —

Drilling Company KLEINFELDER Drilling Method HOLLOW STEM

Driller JAKE/GARY BUSS Log By JLR Date Drilled 9/5/86

Sketch Map



Notes see pD

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
14		LOGGED FROM CUTTINGS		
15			(SC)	CLAYEY-SAND, GRAVELS (½-1"), DARK GRAY-BROWN MOIST, SOFT LOOSE, NO ODOR, NO STAINING
16				
17				DRILLED TO 20.0'
18				
19				GRAVELS (±1") @ 18', LITTLE CLAY & SAND
20				HIT RESTRICTING ROCK @ 18' MOVED & DRILLED #2B
21				
22				BOH 18' (NO WATER ENCOUNTERED)
23				
24				
25				
26				

27

Environmental Resources Management — **Drilling Log**

Project LANDELLS, RIPLEY AND DIAMOND — Owner RIVERSIDE CEMENT CRESTMORE PLANT

Location RIVERSIDE, CA — JOB W.O. Number 179 02

Boring Number #2B — Total Depth 39.0' — Diameter 8"

Surface Elevation — Water Level: Initial N/A — 24-hrs. ---

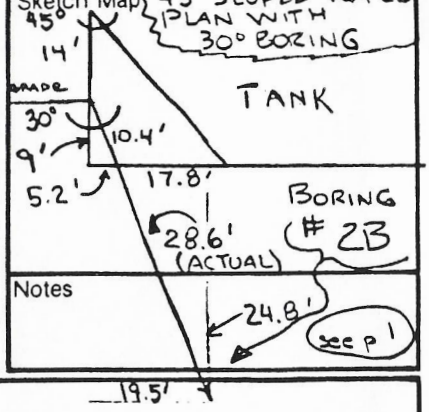
Screen: Dia. — Length — Slot Size —

Casing: Dia. — Length — Type —

Drilling Company KLEINFELDER — Drilling Method HOLLOW STEM

Driller JAKE/GARY BUSS — Log By TLP — Date Drilled 9/5/86

Sketch Map: 45° SLOPED WALL PLAN WITH 30° BORING



Notes: see p 1

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
14				AS ABOVE
15				(NO ODOR, NO STAINING) more moist
16				
17				
18				
19			(SC)	CLAYEY SAND CONTINUOUS — (GRAVELS 1/2"-1") SOFT, moist, LOOSE, BROWN, NO ODOR, NO STAINING
20				→ FROM PILE OF CUTTINGS
21				
22				
23				
24				
25				
26				

Bentonite Grout (5')

Environmental Resources Management — **Drilling Log**

Project: LANDELLS, RIPLEY AND DIAMOND — Owner: RIVERSIDE CEMENT CRESTMORE PLANT

Location: RIVERSIDE, CA — DB #: 178.02

Well Number: BORING # 2B — Total Depth: 39.0' — Diameter: 8"

Surface Elevation: — — Water Level: Initial N/A — 24-hrs. —

Screen: Dia. — Length — Slot Size —

Casing: Dia. — Length — Type —

Drilling Company: KLEINFELDER — Drilling Method: HOLLOW STEM

Driller: GARY BWS JAKE — Log By: JLR — Date Drilled: 9/5/86

Sketch Map: See pp (1) AND (2)

Notes: See p (1)

Depth (Feet)	Graphic Log	Well Construction	Sample Number	Description/Soil Classification (Color, Texture, Structures)
27	PUSHED SHELBY 6" RECOV 2"	LOGGED HOLE BY CUTTINGS		ROCK IN SHELBY TUBE (NO SAMPLE) NO ODOR/ NO STAINING
28				
29				Drilled TO 30'
30				
31				
32	PUSHED SHELBY 18" RECOV 15"		SC	CLAYEY SAND, med fine, some 1/2" gravels soft, moist, loose, STRONG ODOR, NO APPARENT STAINING light gray, mostly sand (HYDROCABON ODOR)
33				SAND - GRAY COLOR - HC ODOR
34				
35				STRONG HYDROCARBON ODOR From HOLE WHEN AUGERS REMOVED
36				
37	PUSHED SHELBY 24 RECOV 24"		CL	SILTY-CLAY - Grading TO CLAY, Blue gray - some very FINE SAND, SHINY FLAKES PRESENT
38			CL	SILTY CLAY, DENSE, COMPACT, GRAY, MOIST, SLIGHT HYDROCARBON ODOR, NO APPARENT STAINING, STICKY
39			CL	CLAY, GRAY @ TOP, ORANGE-BROWN @ BOTTOM, DENSE, TIGHT, STICKY, MOIST, NO APPARENT HYDROCARBON ODOR, NO STAINING
40				BOH 39.0' BACKFILLED HOLE W/ CUTTINGS (NO WATER ENCOUNTERED)

APPENDIX D

LABORATORY TEST DATA

Anlab
ANALYTICAL LABORATORY
A DIVISION OF DEWANTE & STOWELL

1914 S STREET, SACRAMENTO, CALIFORNIA 95814 • 916-447-2946

RECEIVED
SEP 15 1986

SEPTEMBER 12, 1986
DATE SAMPLED: 9/5/86
DATE SAMPLE RECEIVED: 9/9/86
REPORT #110542

ERM-WEST
1777 BOTELHO DR., STE 260
WALNUT CREEK, CA 94596-5022

ATTN: JEFF RUBIN

SAMPLE DESCRIPTION/ ANLAB ID#	TOTAL PETROLEUM HYDROCARBONS BASED ON FUEL OIL STD. PROVIDED BY CLIENT, MG/KG
PROJECT #178.02 LANDELLS, ET AL	
BORING #1C 28.0-28.5' #110542-1	410
BORING #1C 33.5-34.0' #110542-2	<50
BORING #2B 32.5-33.0' #110542-3	<50
BORING #2B 37.5-38.0' #110542-4	<50
BORING #2B 38.0-38.5' #110542-5	<50

DATA CERTIFIED BY Sandra Ann Celestin

REPORT APPROVED BY Roger Elliott

TMA

This report is applicable only to the sample received by the laboratory. The liability of the laboratory is limited to the amount paid for this report. This report is for the exclusive use of the client to whom it is addressed and upon the condition that the client assumes all liability for the further distribution of the report or its contents.

TABLE 2 - Total Petroleum Hydrocarbon Concentrations in Samples of Soil adjecent to Tank Wall

Sampling Point	TPH (mg/kg)
Tank Wall #1	13
Tank Wall #2	14
Tank Wall #3	30
Tank Wall #4	16
Tank Wall #5	44
Tank Wall #6 (Access Ramp Wall)	47,000

TABLE 1 - Total Petroleum Hydrocarbon Concentrations in mg/kg in Vertical Borings 1-4

Depth(ft.)*	Boring #1	Boring #2	Boring #3	Boring #4
1-1.5		490		
4.5-5	31,000		34	
5-5.5				10,000
10-10.5	20,000	34	26	15,000
14.5-15		67,000/12,000	1,300	
15-15.5	30,000			18,000
20-20.5	129,000/73,500		44	37,000
21-21.5		25		
25-25.5	16,000	<1	15	
26-26.5				28
27-27.5	13,000/27			

* two values listed for one depth represent the most and least contaminated portions of a six-inch sample

October 14, 1987 Walnut Creek

Mr. R. Bruce Rieser
Plant Manager
Riverside Cement Company
1500 Rubidoux Boulevard
P. O. Box 832
Riverside, CA 92502

SUBJECT: Analysis of Excavated Soil From Closure of Fuel Oil Storage Tank

Dear Mr. Rieser:

This letter report has been prepared to summarize the results of our analysis of soil samples collected from two large piles of soil excavated from beneath an abandoned fuel oil storage tank at the Crestmore Plant. The soil was excavated and stockpiled based upon discussions and agreements with staff of the Riverside County Health Department.

The work described herein was performed at your request to identify whether or not the material could be handled and transported safely. The work involved sampling and analysis of the stockpiled soil for the following:

- o total petroleum hydrocarbons (i.e. the level of fuel residuals in the soil)
- o priority pollutant organics
- o priority pollutant heavy metals
- o toxicity, as measured by acute fish bioassay

SAMPLING METHODS

Two sets of composite samples were collected at each of the two soil stockpiles for a total of four composite samples. Grab samples were collected from three sampling points to make up each composite sample (see Figure 1). At each grab sample sampling point, approximately eight inches of material was shoveled away

before sampling. Two brass tubes were then filled by pushing them into the soil, withdrawing them and then capping them for analysis of volatile organics. A Teflon liner was placed between the caps and the soil. Soil material for the other chemical tests was scooped into a glass jar with a Teflon lined cap. The jar was filled one-third full at each grab sample sampling point. Samples were kept on ice after collection and chain of custody procedures were followed through delivery to Curtis and Thompkins Laboratories personnel.

ANALYSIS METHODS

The analysis of total petroleum hydrocarbons (TPH) was carried out using two different analytical procedures. EPA Method 3550/8015 employs gas chromatography (GC) as the quantitation technique, whereas EPA Method 3550/418.1 utilizes infrared spectrophotometry (IR) for quantitation. These two methods were chosen because; (1) the GC procedure can provide speciation data on hydrocarbons with boiling points less than 350 degrees Centigrade(C), and (2) the IR procedure can quantitate higher molecular weight (i.e. boiling point greater than 350 degrees C) compounds, though it cannot speciate those compounds.

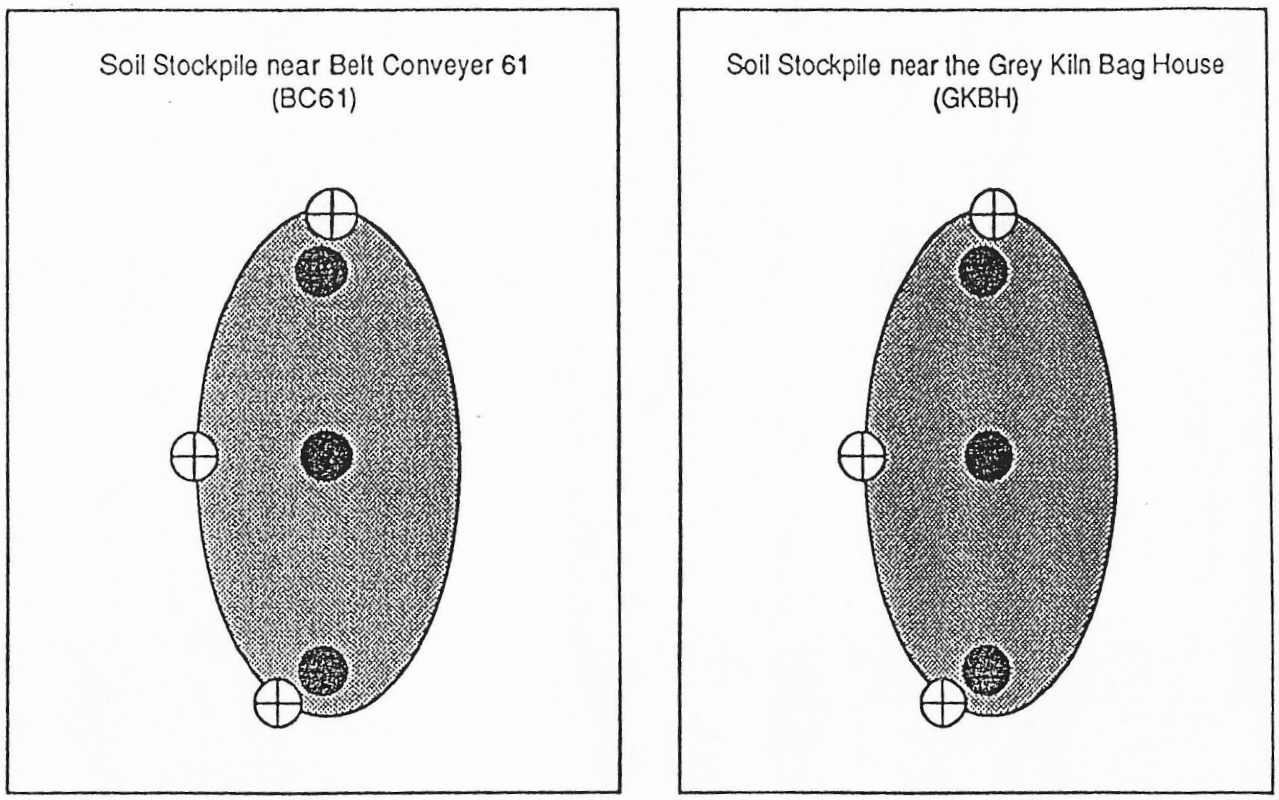
Analysis of priority pollutant organics was performed according to EPA procedures. EPA Method 8240 was used for volatile organics and Method 8270 was utilized for extractable organics.

Heavy metals were analyzed using acid digestion (EPA Method 3050 for <u>total</u> metals), and analysis using EPA Method 6010 (ICP scan), except mercury, which utilized Method 7470 (cold vapor generation).

The 96-hour static acute fish bioassay was performed in accordance with Section 66696, Title 22 of the California Administrative Code and draft "Static Acute Bioassay Procedures for Hazardous Waste Samples" (California Department of Fish and Game, 1985).

In conducting the bioassay, a test sample was first typed and pretreated according to Waste Extraction Test (WET), Section 66700 (Title 22, California Administrative Code, 1985), as applicable for bioassays. Replicate samples of 250 and 750 mg/L final test concentrations were weighed and placed into an individual container with 200 milliliters of charcoal-filtered deionized water, and mixed for 24 hours in a laboratory rotator.

The bioassay consisted of testing replicate tanks of ten fish per sample concentration for 96 hours under carefully controlled and monitored physical conditions. Test and control tanks were not



Key		Sample Identification Codes
●	Samples collected from on Top of the Pile	BC61 = Soil stockpiling adjacent to Belt Conveyer #61 GKBH = Soil stockpiling near the Grey Kiln Bag House Top = Top of pile N = North end of pile M = Middle of pile (half way between North and South ends of pile) W = West side of pile (half way between North and South ends of pile) S = South end of pile
⊕	Samples collected at the Bottom of the Pile	

Figure 1

Simplified Diagrams Showing Approximate Sampling Locations at Soil Stockpiles

(Soil stockpile shapes are generalized, sampling locations are approximate, and figure is not to scale.)

initially aerated to minimize loss of test substance volatility. If the dissolved oxygen level from a tank measured below 60 percent saturation, the tank was aerated and maintained at 25 to 35 mL/minute with diffused, oil-free low pressure air and noted on summary tables. Bioassays were conducted in a controlled atmosphere laboratory. Water quality data were measured to the lowest detectable limits using methods outlined in Standard Methods for the Examination of Water and Wastewater, 16th Edition (APHA, 1985).

TEST RESULTS

Total petroleum hydrocarbon data are summarized in Table 1. These results show that TPH values vary considerably, depending upon the individual test method as well as sampling location within the piles. Overall, however, it appears that the stockpiled soils contain 0.2% (1,900 mg/kg) to 1.7% (17,300 mg/kg) hydrocarbons by weight. These hydrocarbons may be characterized as fuel oil residuals, based upon visual observations of the soil samples and recognition of the previous use of the storage tank.

Priority pollutant organics data are presented in Table 2. The only volatile priority pollutant organic constituent detected in the four composites was toluene at 575 ug/kg (slightly above detection limit of 500 ug/kg). The only extractable priority pollutant detected in one composite sample was phenanthrene at 6 ug/kg (slightly above the detection limit of 5 ug/kg). Overall, it appears that in the aggregate (i.e. completely blended) soil in the two stockpiles, no priority pollutant organics would be observable above analytical detection limits.

Table 3 summarizes heavy metals data for the four composite samples. All samples had very low total metals values, several orders of magnitude below total threshold limit concentrations (TTLC). Metals values in Table 3 appear to be representative of metal levels in natural clay soils.

Fish bioassay data for the four composite samples are presented in Table 4. Fish survival was excellent for all samples and all bioassay test concentrations.

Copies of all individual laboratory data sheets are attached.

TABLE 1
SUMMARY OF TOTAL PETROLEUM HYDROCARBONS DATA

METHOD OF ANALYSIS	SAMPLE RESULTS, mg/kg			
	BC 61 Top	BC 61 Bottom	GKBH Top	GKBH Bottom
o Gas Chromatography (EPA Method 3550/8015)	9,000	6,200	1,900	17,300
o Infrared Spectrophotometry (EPA Method 3550/418.1)	13,500	11,000	5,100	7,600

TABLE 2
SUMMARY OF PRIORITY POLLUTANT ORGANICS DATA

PARAMETER	SAMPLE RESULTS, ug/kg			
	BC 61 Top	BC 61 Bottom	GKBH Top	GKBH Bottom
o Volatiles (EPA Method 8240)	All ND[1] Except: Toluene 575[2]	All ND	All ND	All ND
o Extractables (EPA Method 8270)	All ND	All ND	All ND	All ND Except: Phenanthrene 6[3]

[1] ND = Not Detected
[2] Detection Limit for Toluene, 500 ug/kg
[3] Detection Limit for Phenanthrene, 5 ug/kg

TABLE 3
SUMMARY OF (TOTAL) HEAVY METALS DATA [1]

ELEMENT	SAMPLE RESULTS, mg/kg				TTLC Limit
	BC 61 Top	BC 61 Bottom	GKBH Top	GKBH Bottom	
Antimony	<5.0	<5.0	<5.0	<5.0	500
Arsenic	<5.0	<5.0	<5.0	<5.0	500
Barium	25.6	36.0	44.8	39.2	10,000
Beryllium	<0.5	<0.5	<0.5	<0.5	75
Cadmium	<0.5	<0.5	<0.5	<0.5	100
Chromium	9.4	12.2	12.6	11.0	2,500
Cobalt	26.2	29.2	36.8	53.6	8,000
Copper	13.4	13.4	14.8	17.8	2,500
Lead	<5.0	<5.0	<5.0	<5.0	1,000
Mercury	<0.04	<0.04	<0.04	<0.04	20
Molybdenum	<2.0	<2.0	<2.0	<2.0	3,500
Nickel	8.4	13.2	15.4	8.6	2,000
Selenium	<5.0	<5.0	<5.0	<5.0	100
Silver	<2.0	<2.0	<2.0	<2.0	500
Thallium	<5.0	<5.0	<5.0	<5.0	700
Vanadium	19.6	23.4	28.2	20.6	2,400
Zinz	24.4	29.0	33.0	28.4	5,000

[1] Extraction Method: EPA 3050 - Acid Digestion
Analysis Method: EPA 6010, Except Mercury (EPA 7470)

TABLE 4
SUMMARY OF ACUTE FISH BIOASSAY DATA

Sample	LC50 Value[1], mg/l	Bioassay Test Concentration, mg/l	96 Hour Mortality %
BC61 - Top	>750	250	0
		750	5
BC61 - Bottom	>750	250	5
		750	0
GKBH - Top	>750	250	0
		750	0
GKBH - Bottom	>750	250	0
		750	0

[1] LC50 is the sample concentration lethal to 50 percent of the test organisms in 96 hours.

CONCLUSIONS

The soil stockpiles at the Riverside Cement Company Crestmore Plant contain hydrocarbon residues of approximately 0.2% to 1.7% by weight.

With the exception of minor and insignificant concentrations of toluene and phenanthrene found in individual samples, no priority pollutant organics were detected in soil samples. Heavy metals concentrations in the stockpiles were very low and appear to be comparable to levels of metals in natural clays. The fish bioassays documented that the toxicity of the material to test fish is below the test detection limit. In short, the samples do not exhibit any characteristics which would lead the soil to be classified as hazardous under Section 66693 et. seg. of Title 22, California Administrative Code (1985).

We hope that this letter and the enclosed material provides the information you requested. If you have any questions, or if I can be of further assistance, please contact me.

Very truly yours,

ERM-WEST

Richard W. Stone, Ph.D., P.E.
President

RWS/ddc

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
- Gooch Laboratories Division -
1250 S. Boyle Ave., Los Angeles, CA 90023, Ph. (213) 269-7421

LABORATORY NO. 21778

REPORTED 9/1/87
RECEIVED 8/25/87

FOR ERM-West

REPORT ON Four Soil Samples

MARK Riverside Cement Co.
Job No. 178-02

Four soil samples,

BC61-Top, BC61-Bottom, GKBH-Top, and GKBH-Bottom

were submitted for the following analyses:

1) 96 Hr. Fish Bioassay with Fathead Minnows
2) EPA 8270
3) EPA 418.1
4) CAM-17 Metals

Twelve soil samples were composited,

BC61-Top: BC61, Top-N; BC61, Top-M; BC61, Top-S

BC61-Bottom: BC61, Bottom-S; BC61, Bottom-W; BC61, Bottom-N

GKBH-Top: GKBH, Top-N; GKBH, Top-M; GKBH, Top-S

GKBH-Bottom: GKBH, Bottom-S; GKBH, Bottom-W; GKBH, Bottom-N

and analyzed per the following:

5) EPA 8240
6) EPA 3550/8015

See attached for results.

Laboratory Director

Curtis & Tompkins, Ltd.

LABORATORY NO.: 21778- 1 through 4
CLIENT: ERM-West
CLIENT ID: Riverside Cement Co.
Job No. 178-02

RECEIVED: 8/25/87
ANALYZED: 8/27/87
REPORTED: 9/1/87

METHOD REFERENCE: TOTAL PETROLEUM HYDROCARBONS - EPA 418.1

C & T ID	CLIENT ID	TPH mg/Kg
1	BC61-Top	13,500
2	BC61-Bottom	11,000
3	GKBH-Top	5,100
4	GKBH-Bottom	7,600

QA/QC SUMMARY:

DUPLICATE - RELATIVE % DIFFERENCE	12
SPIKE - % RECOVERY	106

Curtis & Tompkins, Ltd

LABORATORY NO.: 21778- 1 through 4 RECEIVED: 8/25/87
CLIENT: ERM-West ANALYZED: 8/28/87
CLIENT ID: Riverside Cement Co. REPORTED: 9/1/87
Job No. 178-02

METHOD REFERENCE: EXTRACTION - EPA 3550 (Sonication)
TOTAL PETROLEUM HYDROCARBONS (Residual Fuel Oil) - EPA 8015

C & T ID	CLIENT ID	TPH mg/Kg
1	BC61-Top	9,000
2	BC61-Bottom	6,200
3	GKBH-Top	1,900
4	GKBH-Bottom	17,300

QA/QC SUMMARY:

DUPLICATE - RELATIVE % DIFFERENCE	15
SPIKE - % RECOVERY	75

Curtis & Tompkins, Ltd

LABORATORY NO.: 21778-1 RECEIVED: 8/25/87
CLIENT: ERM-West ANALYZED: 8/28/87
CLIENT ID: Riverside Cement Co. - BC61-Top REPORTED: 9/1/87

EPA METHOD 8240 (EXPANDED): VOLATILE ORGANICS IN SOIL AND WASTE

COMPOUND	RESULT ug/Kg	DETECTION LIMIT ug/Kg
Benzene	ND	500
Carbon tetrachloride	ND	500
Chlorobenzene	ND	500
1,2-Dichloroethane	ND	500
1,1,1-Trichloroethane	ND	500
1,1-Dichloroethane	ND	500
1,1,2-Trichloroethane	ND	500
1,1,2,2-Tetrachloroethane	ND	500
Chloroethane	ND	500
2-Chloroethylvinyl ether	ND	1000
Chloroform	ND	500
1,1-Dichloroethene	ND	500
Trans-1,2-Dichloroethene	ND	500
1,2-Dichloropropane	ND	500
1,3-Dichloropropene	ND	500
Ethylbenzene	ND	500
Methylene chloride	ND	1000
Chloromethane	ND	500
Bromomethane	ND	500
Bromoform	ND	500
Bromodichloromethane	ND	500
Fluorotrichloromethane	ND	500
Chlorodibromomethane	ND	500
Tetrachloroethene	ND	500
Toluene	575	500
Trichloroethene	ND	500
Vinyl chloride	ND	500
NON-PRIORITY HAZARDOUS POLLUTANT SUBSTANCES LIST COMPOUNDS		
Acetone	ND	1000
2-Butanone	ND	1000
Carbon disulfide	ND	500
2-Hexanone	ND	500
4-Methyl-2-pentanone	ND	500
Styrene	ND	500
Vinyl acetate	ND	500
Total xylenes	1875	500

QA/QC SUMMARY: SURROGATE SPIKE RECOVERY

1,2 Dichloroethane-d4:	113 %
Toluene-d8:	100 %
Bromofluorobenzene:	109 %

ND = Not Detected.

Curtis & Tompkins, Ltd

LABORATORY NO.: 21778-2 RECEIVED: 8/25/87
CLIENT: ERM-West ANALYZED: 8/28/87
CLIENT ID: Riverside Cement Co. - BC61-Bottom REPORTED: 9/1/87

EPA METHOD 8240 (EXPANDED): VOLATILE ORGANICS IN SOIL AND WASTE

COMPOUND	RESULT ug/Kg	DETECTION LIMIT ug/Kg
Benzene	ND	500
Carbon tetrachloride	ND	500
Chlorobenzene	ND	500
1,2-Dichloroethane	ND	500
1,1,1-Trichloroethane	ND	500
1,1-Dichloroethane	ND	500
1,1,2-Trichloroethane	ND	500
1,1,2,2-Tetrachloroethane	ND	500
Chloroethane	ND	500
2-Chloroethylvinyl ether	ND	1000
Chloroform	ND	500
1,1-Dichloroethene	ND	500
Trans-1,2-Dichloroethene	ND	500
1,2-Dichloropropane	ND	500
1,3-Dichloropropene	ND	500
Ethylbenzene	ND	500
Methylene chloride	ND	1000
Chloromethane	ND	500
Bromomethane	ND	500
Bromoform	ND	500
Bromodichloromethane	ND	500
Fluorotrichloromethane	ND	500
Chlorodibromomethane	ND	500
Tetrachloroethene	ND	500
Toluene	ND	500
Trichloroethene	ND	500
Vinyl chloride	ND	500
NON-PRIORITY HAZARDOUS POLLUTANT SUBSTANCES LIST COMPOUNDS		
Acetone	ND	1000
2-Butanone	ND	1000
Carbon disulfide	ND	500
2-Hexanone	ND	500
4-Methyl-2-pentanone	ND	500
Styrene	ND	500
Vinyl acetate	ND	500
Total xylenes	850	500

QA/QC SUMMARY: SURROGATE SPIKE RECOVERY

1,2 Dichloroethane-d4:	108 %
Toluene-d8:	112 %
Bromofluorobenzene:	137 %

ND = Not Detected.

Curtis & Tompkins, Ltd.

LABORATORY NO.: 21778-3 RECEIVED: 8/25/87
CLIENT: ERM-West ANALYZED: 8/28/87
CLIENT ID: Riverside Cement Co. - GKBH-Top REPORTED: 9/1/87

EPA METHOD 8240 (EXPANDED): VOLATILE ORGANICS IN SOIL AND WASTE

COMPOUND	RESULT ug/Kg	DETECTION LIMIT ug/Kg
Benzene	ND	500
Carbon tetrachloride	ND	500
Chlorobenzene	ND	500
1,2-Dichloroethane	ND	500
1,1,1-Trichloroethane	ND	500
1,1-Dichloroethane	ND	500
1,1,2-Trichloroethane	ND	500
1,1,2,2-Tetrachloroethane	ND	500
Chloroethane	ND	500
2-Chloroethylvinyl ether	ND	1000
Chloroform	ND	500
1,1-Dichloroethene	ND	500
Trans-1,2-Dichloroethene	ND	500
1,2-Dichloropropane	ND	500
1,3-Dichloropropene	ND	500
Ethylbenzene	ND	500
Methylene chloride	ND	1000
Chloromethane	ND	500
Bromomethane	ND	500
Bromoform	ND	500
Bromodichloromethane	ND	500
Fluorotrichloromethane	ND	500
Chlorodibromomethane	ND	500
Tetrachloroethene	ND	500
Toluene	ND	500
Trichloroethene	ND	500
Vinyl chloride	ND	500
NON-PRIORITY HAZARDOUS POLLUTANT SUBSTANCES LIST COMPOUNDS		
Acetone	ND	1000
2-Butanone	ND	1000
Carbon disulfide	ND	500
2-Hexanone	ND	500
4-Methyl-2-pentanone	ND	500
Styrene	ND	500
Vinyl acetate	ND	500
Total xylenes	ND	500

QA/QC SUMMARY: SURROGATE SPIKE RECOVERY

1,2 Dichloroethane-d4:	103 %
Toluene-d8:	100 %
Bromofluorobenzene:	95 %

ND = Not Detected.

Curtis & Tompkins, Ltd

LABORATORY NO.: 21778-4 RECEIVED: 8/25/87
CLIENT: ERM-West ANALYZED: 8/28/87
CLIENT ID: Riverside Cement Co. - GKBH-Bottom REPORTED: 9/1/87

EPA METHOD 8240 (EXPANDED): VOLATILE ORGANICS IN SOIL AND WASTE

COMPOUND	RESULT ug/Kg	DETECTION LIMIT ug/Kg
Benzene	ND	500
Carbon tetrachloride	ND	500
Chlorobenzene	ND	500
1,2-Dichloroethane	ND	500
1,1,1-Trichloroethane	ND	500
1,1-Dichloroethane	ND	500
1,1,2-Trichloroethane	ND	500
1,1,2,2-Tetrachloroethane	ND	500
Chloroethane	ND	500
2-Chloroethylvinyl ether	ND	1000
Chloroform	ND	500
1,1-Dichloroethene	ND	500
Trans-1,2-Dichloroethene	ND	500
1,2-Dichloropropane	ND	500
1,3-Dichloropropene	ND	500
Ethylbenzene	ND	500
Methylene chloride	ND	1000
Chloromethane	ND	500
Bromomethane	ND	500
Bromoform	ND	500
Bromodichloromethane	ND	500
Fluorotrichloromethane	ND	500
Chlorodibromomethane	ND	500
Tetrachloroethene	ND	500
Toluene	ND	500
Trichloroethene	ND	500
Vinyl chloride	ND	500
NON-PRIORITY HAZARDOUS POLLUTANT SUBSTANCES LIST COMPOUNDS		
Acetone	ND	1000
2-Butanone	ND	1000
Carbon disulfide	ND	500
2-Hexanone	ND	500
4-Methyl-2-pentanone	ND	500
Styrene	ND	500
Vinyl acetate	ND	500
Total xylenes	1150	500

QA/QC SUMMARY: SURROGATE SPIKE RECOVERY

1,2 Dichloroethane-d4:	100 %
Toluene-d8:	63 %
Bromofluorobenzene:	113 %

ND = Not Detected.

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 211778-1
CLIENT: ERM WEST
CLIENT ID: BC61-TOP

DATE RECIEVED:08/25/87
DATE ANALYZED:08/72-31/87
DATE REPORTED: 09/02/87

EPA METHOD 8270: BASE, NEUTRAL AND ACID EXTRACTABLE ORGANICS
EXTRACTION METHOD:EPA 3540 - Soxhlet

ACID COMPOUNDS	mg/Kg	LOD mg/Kg
Phenol	ND	5
2-Chlorophenol	ND	5
2-Nitrophenol	ND	10
2,4-Dimethylphenol	ND	5
2,4-Dichlorophenol	ND	5
4-Chloro-3-methylphenol	ND	5
2,4,6-Trichlorophenol	ND	5
2,4-Dinitrophenol	ND	25
4-Nitrophenol	ND	10
2-Methyl-4,6-dinitrophenol	ND	25
Pentachlorophenol	ND	10
BASE/NEUTRAL COMPOUNDS		
Bis(2-chloroethyl)ether	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
Bis(2-chloroisopropyl)ether	ND	5
N-nitrosodi-n-propylamine	ND	5
Hexachloroethane	ND	5
Nitrobenzene	ND	5
Isophorone	ND	5
Bis(2-chloroethoxy)methane	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
Hexachlorobutadiene	ND	5
Hexachlorocyclopentadiene	ND	5
2-Chloronaphthalene	ND	5
Dimethyl phthalate	ND	5
Acenaphthylene	ND	5
2,6-Dinitrotoluene	ND	5
Acenaphthene	ND	5
2,4-Dinitrotoluene	ND	5
Fluorene	ND	5
Diethyl phthalate	ND	5
4-Chlorophenylphenyl ether	ND	5
N-Nitrosodiphenylamine	ND	5
1,2-Diphenylhydrazine	ND	5
4-Bromophenylphenyl ether	ND	5

LABORATORY NUMBER: 21778-1
CLIENT ID: BC-61 TOP

BASE/NEUTRAL COMPOUNDS	RESULTS mg/Kg	LOD mg/Kg
Hexachlorobenzene	ND	5
Phenanthrene	ND	5
Anthracene	ND	5
Dibutylphthalate	ND	5
Fluoranthene	ND	5
Benzidine	ND	25
Pyrene	ND	5
Butylbenzylphthalate	ND	5
Benzo (a) anthracene	ND	5
3,3'-Dichlorobenzidine	ND	25
Chrysene	ND	5
Bis (2-ethylhexyl)phthalate	ND	5
Di-n-octyl phthalate	ND	5
Benzo (b) fluoranthene	ND	5
Benzo (k) fluoranthene	ND	5
Benzo (a) pyrene	ND	5
Indeno (1,2,3-cd) pyrene	ND	10
Dibenzo (a,h) anthracene	ND	10
Benzo (ghi) perylene	ND	10

HSL COMPOUNDS:	RESULTS mg/Kg	LOD mg/Kg
Benzoic Acid	ND	50
2-Methylphenol	ND	5
4-Methylphenol	ND	5
2,4,5-Trichlolophenol	ND	25
Aniline	ND	5
Benzyl alcohol	ND	5
4-Chloroaniline	ND	5
2- Methylnaphthalene	7	5
2-Nitroaniline	ND	5
3-Nitroaniline	ND	5
Dibensofuran	ND	5
4-Nitroaniline	ND	5

ND = NONE DETECTED.
AVERAGE SURROGATE RECOVERY: 85%

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 211778-2
CLIENT: ERM WEST
CLIENT ID: BC61-BOTTOM

DATE RECIEVED:08/25/87
DATE ANALYZED:08/72-31/87
DATE REPORTED: 09/02/87

EPA METHOD 8270: BASE, NEUTRAL AND ACID EXTRACTABLE ORGANICS
EXTRACTION METHOD:EPA 3540 - Soxhlet

ACID COMPOUNDS	mg/Kg	LOD mg/Kg
Phenol	ND	5
2-Chlorophenol	ND	5
2-Nitrophenol	ND	10
2,4-Dimethylphenol	ND	5
2,4-Dichlorophenol	ND	5
4-Chloro-3-methylphenol	ND	5
2,4,6-Trichlorophenol	ND	5
2,4-Dinitrophenol	ND	25
4-Nitrophenol	ND	10
2-Methyl-4,6-dinitrophenol	ND	25
Pentachlorophenol	ND	10
BASE/NEUTRAL COMPOUNDS		
Bis(2-chloroethyl)ether	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
Bis(2-chloroisopropyl)ether	ND	5
N-nitrosodi-n-propylamine	ND	5
Hexachloroethane	ND	5
Nitrobenzene	ND	5
Isophorone	ND	5
Bis(2-chloroethoxy)methane	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
Hexachlorobutadiene	ND	5
Hexachlorocyclopentadiene	ND	5
2-Chloronaphthalene	ND	5
Dimethyl phthalate	ND	5
Acenaphthylene	ND	5
2,6-Dinitrotoluene	ND	5
Acenaphthene	ND	5
2,4-Dinitrotoluene	ND	5
Fluorene	ND	5
Diethyl phthalate	ND	5
4-Chlorophenylphenyl ether	ND	5
N-Nitrosodiphenylamine	ND	5
1,2-Diphenylhydrazine	ND	5
4-Bromophenylphenyl ether	ND	5

LABORATORY NUMBER: 21778-2
CLIENT ID: BC-61 BOTTOM

BASE/NEUTRAL COMPOUNDS	RESULTS mg/Kg	LOD mg/Kg
Hexachlorobenzene	ND	5
Phenanthrene	ND	5
Anthracene	ND	5
Dibutylphthalate	ND	5
Fluoranthene	ND	5
Benzidine	ND	25
Pyrene	ND	5
Butylbenzylphthalate	ND	5
Benzo (a) anthracene	ND	5
3,3'-Dichlorobenzidine	ND	25
Chrysene	ND	5
Bis (2-ethylhexyl)phthalate	ND	5
Di-n-octyl phthalate	ND	5
Benzo (b) fluoranthene	ND	5
Benzo (k) fluoranthene	ND	5
Benzo (a) pyrene	ND	5
Indeno (1,2,3-cd) pyrene	ND	10
Dibenzo (a,h) anthracene	ND	10
Benzo (ghi) perylene	ND	10

HSL COMPOUNDS:	RESULTS mg/Kg	LOD mg/Kg
Benzoic Acid	ND	50
2-Methylphenol	ND	5
4-Methylphenol	ND	5
2,4,5-Trichlolophenol	ND	25
Aniline	ND	5
Benzyl alcohol	ND	5
4-Chloroaniline	ND	5
2- Methylnaphthalene	27	5
2-Nitroaniline	ND	5
3-Nitroaniline	ND	5
Dibensofuran	ND	5
4-Nitroaniline	ND	5

ND = NONE DETECTED.
AVERAGE SURROGATE RECOVERY: 85%

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 211778-3
CLIENT: ERM WEST
CLIENT ID: GKBH-TOP

DATE RECIEVED:08/25/87
DATE ANALYZED:08/72-31/87
DATE REPORTED: 09/02/87

EPA METHOD 8270: BASE, NEUTRAL AND ACID EXTRACTABLE ORGANICS
EXTRACTION METHOD:EPA 3540 - Soxhlet

ACID COMPOUNDS	mg/Kg	LOD mg/Kg
Phenol	ND	5
2-Chlorophenol	ND	5
2-Nitrophenol	ND	10
2,4-Dimethylphenol	ND	5
2,4-Dichlorophenol	ND	5
4-Chloro-3-methylphenol	ND	5
2,4,6-Trichlorophenol	ND	5
2,4-Dinitrophenol	ND	25
4-Nitrophenol	ND	10
2-Methyl-4,6-dinitrophenol	ND	25
Pentachlorophenol	ND	10
BASE/NEUTRAL COMPOUNDS		
Bis(2-chloroethyl)ether	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
Bis(2-chloroisopropyl)ether	ND	5
N-nitrosodi-n-propylamine	ND	5
Hexachloroethane	ND	5
Nitrobenzene	ND	5
Isophorone	ND	5
Bis(2-chloroethoxy)methane	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
Hexachlorobutadiene	ND	5
Hexachlorocyclopentadiene	ND	5
2-Chloronaphthalene	ND	5
Dimethyl phthalate	ND	5
Acenaphthylene	ND	5
2,6-Dinitrotoluene	ND	5
Acenaphthene	ND	5
2,4-Dinitrotoluene	ND	5
Fluorene	ND	5
Diethyl phthalate	ND	5
4-Chlorophenylphenyl ether	ND	5
N-Nitrosodiphenylamine	ND	5
1,2-Diphenylhydrazine	ND	5
4-Bromophenylphenyl ether	ND	5

LABORATORY NUMBER: 21778-3
CLIENT ID: GKBH-TOP

BASE/NEUTRAL COMPOUNDS	RESULTS mg/Kg	LOD mg/Kg
Hexachlorobenzene	ND	5
Phenanthrene	ND	5
Anthracene	ND	5
Dibutylphthalate	ND	5
Fluoranthene	ND	5
Benzidine	ND	25
Pyrene	ND	5
Butylbenzylphthalate	ND	5
Benzo (a) anthracene	ND	5
3,3'-Dichlorobenzidine	ND	25
Chrysene	ND	5
Bis (2-ethylhexyl)phthalate	ND	5
Di-n-octyl phthalate	ND	5
Benzo (b) fluoranthene	ND	5
Benzo (k) fluoranthene	ND	5
Benzo (a) pyrene	ND	5
Indeno (1,2,3-cd) pyrene	ND	10
Dibenzo (a,h) anthracene	ND	10
Benzo (ghi) perylene	ND	10

HSL COMPOUNDS:	RESULTS mg/Kg	LOD mg/Kg
Benzoic Acid	ND	50
2-Methylphenol	ND	5
4-Methylphenol	ND	5
2,4,5-Trichlolophenol	ND	25
Aniline	ND	5
Benzyl alcohol	ND	5
4-Chloroaniline	ND	5
2- Methylnaphthalene	ND	5
2-Nitroaniline	ND	5
3-Nitroaniline	ND	5
Dibensofuran	ND	5
4-Nitroaniline	ND	5

ND = NONE DETECTED.
AVERAGE SURROGATE RECOVERY: 85%

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 211778-4
CLIENT: ERM WEST
CLIENT ID: GKBH-BOTTOM

DATE RECIEVED:08/25/87
DATE ANALYZED:08/72-31/87
DATE REPORTED: 09/02/87

EPA METHOD 8270: BASE, NEUTRAL AND ACID EXTRACTABLE ORGANICS
EXTRACTION METHOD:EPA 3540 - Soxhlet

ACID COMPOUNDS	mg/Kg	LOD mg/Kg
Phenol	ND	5
2-Chlorophenol	ND	5
2-Nitrophenol	ND	10
2,4-Dimethylphenol	ND	5
2,4-Dichlorophenol	ND	5
4-Chloro-3-methylphenol	ND	5
2,4,6-Trichlorophenol	ND	5
2,4-Dinitrophenol	ND	25
4-Nitrophenol	ND	10
2-Methyl-4,6-dinitrophenol	ND	25
Pentachlorophenol	ND	10
BASE/NEUTRAL COMPOUNDS		
Bis(2-chloroethyl)ether	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
Bis(2-chloroisopropyl)ether	ND	5
N-nitrosodi-n-propylamine	ND	5
Hexachloroethane	ND	5
Nitrobenzene	ND	5
Isophorone	ND	5
Bis(2-chloroethoxy)methane	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
Hexachlorobutadiene	ND	5
Hexachlorocyclopentadiene	ND	5
2-Chloronaphthalene	ND	5
Dimethyl phthalate	ND	5
Acenaphthylene	ND	5
2,6-Dinitrotoluene	ND	5
Acenaphthene	ND	5
2,4-Dinitrotoluene	ND	5
Fluorene	ND	5
Diethyl phthalate	ND	5
4-Chlorophenylphenyl ether	ND	5
N-Nitrosodiphenylamine	ND	5
1,2-Diphenylhydrazine	ND	5
4-Bromophenylphenyl ether	ND	5

Curtis & Tompkins, Ltd.

LABORATORY NO.: 21778-1 RECEIVED: 8/25/87
CLIENT: ERM-West ANALYZED: 8/31/87
CLIENT ID: Riverside Cement Co. - BC61-Top REPORTED: 9/1/87

CALIFORNIA ADMINISTRATIVE CODE - TITLE 22: 17 METALS, TTLC LIMITS

EXTRACTION METHOD: EPA 3050 - ACID DIGESTION

ELEMENT	RESULT mg/Kg	TTLC LIMIT mg/Kg	ANALYSIS METHOD
Antimony	<5.0	500	EPA 6010
Arsenic	<5.0	500	EPA 6010
Barium	25.6	10,000	EPA 6010
Beryllium	<0.5	75	EPA 6010
Cadmium	<0.5	100	EPA 6010
Chromium	9.4	2,500	EPA 6010
Cobalt	26.2	8,000	EPA 6010
Copper	13.4	2,500	EPA 6010
Lead	<5.0	1,000	EPA 6010
Mercury	<0.04	20	EPA 7470
Molybdenum	<2.0	3,500	EPA 6010
Nickel	8.4	2,000	EPA 6010
Selenium	<5.0	100	EPA 6010
Silver	<2.0	500	EPA 6010
Thallium	<5.0	700	EPA 6010
Vanadium	19.6	2,400	EPA 6010
Zinc	24.4	5,000	EPA 6010

QA/QC SUMMARY

	DUPLICATE RPD	SPIKE % RECOVERY		DUPLICATE RPD	SPIKE % RECOVERY
Antimony	<1	76	Mercury	11	93
Arsenic	<1	96	Molybdenum	<1	98
Barium	<1	104	Nickel	<1	96
Beryllium	<1	92	Selenium	<1	102
Cadmium	<1	100	Silver	<1	96
Chromium	<1	102	Thallium	35	121
Cobalt	<1	104	Vanadium	<1	98
Copper	<1	98	Zinc	<1	96
Lead	32	118			

RPD = Relative Percent Difference.

Curtis & Tompkins, Ltd

LABORATORY NO.: 21778-2 RECEIVED: 8/25/87
CLIENT: ERM-West ANALYZED: 8/31/87
CLIENT ID: Riverside Cement Co. - BC61-Bottom REPORTED: 9/1/87

CALIFORNIA ADMINISTRATIVE CODE - TITLE 22: 17 METALS, TTLC LIMITS

EXTRACTION METHOD: EPA 3050 - ACID DIGESTION

ELEMENT	RESULT mg/Kg	TTLC LIMIT mg/Kg	ANALYSIS METHOD
Antimony	<5.0	500	EPA 6010
Arsenic	<5.0	500	EPA 6010
Barium	36.0	10,000	EPA 6010
Beryllium	<0.5	75	EPA 6010
Cadmium	<0.5	100	EPA 6010
Chromium	12.2	2,500	EPA 6010
Cobalt	29.2	8,000	EPA 6010
Copper	13.4	2,500	EPA 6010
Lead	<5.0	1,000	EPA 6010
Mercury	<0.04	20	EPA 7470
Molybdenum	<2.0	3,500	EPA 6010
Nickel	13.2	2,000	EPA 6010
Selenium	<5.0	100	EPA 6010
Silver	<2.0	500	EPA 6010
Thallium	<5.0	700	EPA 6010
Vanadium	23.4	2,400	EPA 6010
Zinc	29.0	5,000	EPA 6010

QA/QC SUMMARY

	DUPLICATE RPD	SPIKE % RECOVERY		DUPLICATE RPD	SPIKE % RECOVERY
Antimony	<1	76	Mercury	11	93
Arsenic	<1	96	Molybdenum	<1	98
Barium	<1	104	Nickel	<1	96
Beryllium	<1	92	Selenium	<1	102
Cadmium	<1	100	Silver	<1	96
Chromium	<1	102	Thallium	35	121
Cobalt	<1	104	Vanadium	<1	98
Copper	<1	98	Zinc	<1	96
Lead	32	118			

RPD = Relative Percent Difference.

Curtis & Tompkins, Ltd

LABORATORY NO.: 21778-3 RECEIVED: 8/25/87
CLIENT: ERM-West ANALYZED: 8/31/87
CLIENT ID: Riverside Cement Co. - GKBH-Top REPORTED: 9/1/87

CALIFORNIA ADMINISTRATIVE CODE - TITLE 22: 17 METALS, TTLC LIMITS

EXTRACTION METHOD: EPA 3050 - ACID DIGESTION

ELEMENT	RESULT mg/Kg	TTLC LIMIT mg/Kg	ANALYSIS METHOD
Antimony	<5.0	500	EPA 6010
Arsenic	<5.0	500	EPA 6010
Barium	44.8	10,000	EPA 6010
Beryllium	<0.5	75	EPA 6010
Cadmium	<0.5	100	EPA 6010
Chromium	12.6	2,500	EPA 6010
Cobalt	36.8	8,000	EPA 6010
Copper	14.8	2,500	EPA 6010
Lead	<5.0	1,000	EPA 6010
Mercury	<0.04	20	EPA 7470
Molybdenum	<2.0	3,500	EPA 6010
Nickel	15.4	2,000	EPA 6010
Selenium	<5.0	100	EPA 6010
Silver	<2.0	500	EPA 6010
Thallium	<5.0	700	EPA 6010
Vanadium	28.2	2,400	EPA 6010
Zinc	33.0	5,000	EPA 6010

QA/QC SUMMARY

	DUPLICATE RPD	SPIKE % RECOVERY		DUPLICATE RPD	SPIKE % RECOVERY
Antimony	<1	76	Mercury	11	93
Arsenic	<1	96	Molybdenum	<1	98
Barium	<1	104	Nickel	<1	96
Beryllium	<1	92	Selenium	<1	102
Cadmium	<1	100	Silver	<1	96
Chromium	<1	102	Thallium	35	121
Cobalt	<1	104	Vanadium	<1	98
Copper	<1	98	Zinc	<1	96
Lead	32	118			

RPD = Relative Percent Difference.

Curtis & Tompkins, Ltd.

LABORATORY NO.: 21778-4 RECEIVED: 8/25/87
CLIENT: ERM-West ANALYZED: 8/31/87
CLIENT ID: Riverside Cement Co. - GKBH-Bottom REPORTED: 9/1/87

CALIFORNIA ADMINISTRATIVE CODE - TITLE 22: 17 METALS, TTLC LIMITS

EXTRACTION METHOD: EPA 3050 - ACID DIGESTION

ELEMENT	RESULT mg/Kg	TTLC LIMIT mg/Kg	ANALYSIS METHOD
Antimony	<5.0	500	EPA 6010
Arsenic	<5.0	500	EPA 6010
Barium	39.2	10,000	EPA 6010
Beryllium	<0.5	75	EPA 6010
Cadmium	<0.5	100	EPA 6010
Chromium	11.0	2,500	EPA 6010
Cobalt	53.6	8,000	EPA 6010
Copper	17.8	2,500	EPA 6010
Lead	<5.0	1,000	EPA 6010
Mercury	<0.04	20	EPA 7470
Molybdenum	<2.0	3,500	EPA 6010
Nickel	8.6	2,000	EPA 6010
Selenium	<5.0	100	EPA 6010
Silver	<2.0	500	EPA 6010
Thallium	<5.0	700	EPA 6010
Vanadium	20.6	2,400	EPA 6010
Zinc	28.4	5,000	EPA 6010

QA/QC SUMMARY

	DUPLICATE RPD	SPIKE % RECOVERY		DUPLICATE RPD	SPIKE % RECOVERY
Antimony	<1	76	Mercury	11	93
Arsenic	<1	96	Molybdenum	<1	98
Barium	<1	104	Nickel	<1	96
Beryllium	<1	92	Selenium	<1	102
Cadmium	<1	100	Silver	<1	96
Chromium	<1	102	Thallium	35	121
Cobalt	<1	104	Vanadium	<1	98
Copper	<1	98	Zinc	<1	96
Lead	32	118			

RPD = Relative Percent Difference.

Curtis & Tompkins, Ltd., Analytical Laboratories. Since 1878
- Gooch Laboratories Division -
1250 6th Ave., Berkeley, CA 94710, Ph. (510) 486-0900
1250 E. Boyle Ave., Los Angeles, CA 90023, Ph. (213) 269-7421

RECEIVED
SEP 21 1987
ERM-WEST
WALNUT CREEK, CA

LABORATORY NO.: 21778-1 through 4
CLIENT: ERM-West
CLIENT ID: Riverside Cement Co.
Job No. 178-02

RECEIVED: 8/25/87
ANALYZED: 9/1-5/87
REPORTED: 9/16/87

METHOD REFERENCE: 96 Hr. Static Acute Fish Bioassay (Fathead Minnows) - California Administrative Code, Title 22

C & T ID	CLIENT ID	LC50 VALUE mg/L	CONCENTRATION mg/L	96 HR. MORTALITY %
1	BC61-Top	>750	250	0
			750	5
2	BC61-Bottom	>750	250	5
			750	0
3	GKBH-Top	>750	250	0
			750	0
4	GKBH-Bottom	>750	250	0
			750	0

Laboratory Director

BIOASSAY PROCEDURE AND ORGANISM DATA

Parameter	Data
Test	
Test Type	Title 22 initial screening
Test Duration	96 hours
Test Photoperiod	16hrL:8hrD
Start Date; Time	9/1/87; 0915
Completion Date	9/5/87
Test Container	15-L aquaria
Exposure Volume	10L
Control Water	Charcoal-filtered soft water
Dilution Water	Charcoal-filtered soft water
Organisms per Container	10
No. of Test Containers	4 per test, 2 controls
Sample Storage Conditions	4°C in the dark
Treatment Problems	Aeration needed for some samples
Organism	
Test Species	Fathead minnows, Pimephales promelas
Source	Thomas Fish Company
Date Acquired	8/4/87
Age	3-6 weeks
Acclimation Period	3 weeks
Acclimation Water	Charcoal-filtered hard water
Acclimation Temperature	21°C
Acclimation Photoperiod	16hrL:8hrD
Diet	Tetramin "Growth" flake food

Size
n = 15

	Mean	Maximum	Minimum
Length (cm):	3.0	3.8	2.2
Weight (gm):	0.21	0.40	0.06

Percent Mortality

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	NA	0	0	0	0
Control Tank #2	NA	0	0	0	0
Tank 1 (250 mg/L)	NA	0	0	0	0
Tank 2 (250 mg/L)	NA	0	0	0	0
Tank 1 (750 mg/L)	NA	0	0	0	0
Tank 2 (750 mg/L)	NA	0	0	10	10

Temperature (°C)

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	19.8	20.1	19.6	19.6	19.6
Control Tank #2	19.6	19.9	19.3	19.5	19.5
Tank 1 (250 mg/L)	19.8	20.1	19.7	19.7	19.7
Tank 2 (250 mg/L)	19.7	19.9	19.4	19.5	19.4
Tank 1 (750 mg/L)	19.7	19.8	19.4	19.4	19.3
Tank 2 (750 mg/L)	19.6	19.9	19.4	19.4	19.3

Dissolved Oxygen (mg/L)

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	7.7	7.8	7.1	6.3	6.5
Control Tank #2	7.9	7.8	7.1	6.4	6.6
Tank 1 (250 mg/L)	7.7	7.3	6.6	6.4	6.4
Tank 2 (250 mg/L)	7.8	7.3	6.6	6.1	6.2
Tank 1 (750 mg/L)	7.8	7.3	5.8	5.4	8.6
Tank 2 (750 mg/L)	8.0	7.1	6.5	5.8	6.3

pH (Units)

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	6.6	7.3	6.7	6.8	7.2
Control Tank #2	6.7	7.3	6.8	6.5	7.2
Tank 1 (250 mg/L)	7.2	7.3	7.6	6.5	6.6
Tank 2 (250 mg/L)	7.2	7.3	7.6	6.6	6.5
Tank 1 (750 mg/L)	7.2	7.4	7.6	6.6	6.5
Tank 2 (750 mg/L)	7.2	7.4	7.6	6.6	6.5

NA--Not applicable.

Percent Mortality

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	NA	0	0	0	0
Control Tank #2	NA	0	0	0	0
Tank 1 (250 mg/L)	NA	0	0	10	10
Tank 2 (250 mg/L)	NA	0	0	0	0
Tank 1 (750 mg/L)	NA	0	0	0	0
Tank 2 (750 mg/L)	NA	0	0	0	0

Temperature (°C)

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	19.8	20.1	19.6	19.6	19.6
Control Tank #2	19.6	19.9	19.3	19.5	19.5
Tank 1 (250 mg/L)	19.6	19.9	19.5	19.5	19.5
Tank 2 (250 mg/L)	19.6	19.9	19.5	19.5	19.7
Tank 1 (750 mg/L)	19.6	19.9	19.5	19.5	19.4
Tank 2 (750 mg/L)	19.6	19.9	19.5	19.5	19.5

Dissolved Oxygen (mg/L)

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	7.7	7.8	7.1	6.3	6.5
Control Tank #2	7.9	7.8	7.1	6.4	6.6
Tank 1 (250 mg/L)	7.6	7.3	6.0	5.2[a]	8.0
Tank 2 (250 mg/L)	7.9	7.2	6.3	5.9	6.3
Tank 1 (750 mg/L)	8.0	7.2	6.4	6.0	6.3
Tank 2 (750 mg/L)	7.7	7.3	6.3	5.9	6.2

pH (Units)

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	6.6	7.3	6.7	6.8	7.2
Control Tank #2	6.7	7.3	6.8	6.5	7.2
Tank 1 (250 mg/L)	7.2	7.3	7.3	6.4	6.7
Tank 2 (250 mg/L)	7.2	7.4	7.4	6.4	6.8
Tank 1 (750 mg/L)	7.2	7.4	7.4	6.5	6.8
Tank 2 (750 mg/L)	7.2	7.4	7.3	6.5	6.8

NA--Not applicable.
[a]Tank aerated with diffused, oil-free air for duration of test.

Percent Mortality

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	NA	0	0	0	0
Control Tank #2	NA	0	0	0	0
Tank 1 (250 mg/L)	NA	0	0	0	0
Tank 2 (250 mg/L)	NA	0	0	0	0
Tank 1 (750 mg/L)	NA	0	0	0	0
Tank 2 (750 mg/L)	NA	0	0	0	0

Temperature (°C)

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	19.8	20.1	19.6	19.6	19.6
Control Tank #2	19.6	19.9	19.3	19.5	19.5
Tank 1 (250 mg/L)	19.6	19.9	19.5	19.4	19.4
Tank 2 (250 mg/L)	19.6	20.0	19.5	19.6	19.5
Tank 1 (750 mg/L)	19.7	20.0	19.6	19.6	19.6
Tank 2 (750 mg/L)	19.7	19.9	19.5	19.6	19.5

Dissolved Oxygen (mg/L)

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	7.7	7.8	7.1	6.3	6.5
Control Tank #2	7.9	7.8	7.1	6.4	6.6
Tank 1 (250 mg/L)	8.0	7.0	6.7	5.8	6.1
Tank 2 (250 mg/L)	8.0	6.8	6.3	5.4[a]	7.5
Tank 1 (750 mg/L)	8.1	7.0	7.0	6.2	6.6
Tank 2 (750 mg/L)	8.1	7.0	6.6	6.0	6.0

pH (Units)

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	6.6	7.3	6.7	6.8	7.2
Control Tank #2	6.7	7.3	6.8	6.5	7.2
Tank 1 (250 mg/L)	7.2	7.4	7.2	6.2	6.9
Tank 2 (250 mg/L)	7.2	7.4	7.2	6.1	6.9
Tank 1 (750 mg/L)	7.3	7.5	7.3	6.3	7.0
Tank 2 (750 mg/L)	7.3	7.5	7.3	6.1	7.0

NA--Not applicable.
[a]Tank aerated with diffused, oil-free air for duration of test.

Percent Mortality

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	NA	0	0	0	0
Control Tank #2	NA	0	0	0	0
Tank 1 (250 mg/L)	NA	0	0	0	0
Tank 2 (250 mg/L)	NA	0	0	0	0
Tank 1 (750 mg/L)	NA	0	0	0	0
Tank 2 (750 mg/L)	NA	0	0	0	0

Temperature (°C)

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	19.8	20.1	19.6	19.6	19.6
Control Tank #2	19.6	19.9	19.3	19.5	19.5
Tank 1 (250 mg/L)	19.7	20.0	19.7	19.6	19.6
Tank 2 (250 mg/L)	19.7	20.0	19.7	19.7	19.7
Tank 1 (750 mg/L)	19.8	20.0	19.7	19.7	19.7
Tank 2 (750 mg/L)	19.8	20.0	19.7	19.7	19.6

Dissolved Oxygen (mg/L)

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	7.7	7.8	7.1	6.3	6.5
Control Tank #2	7.9	7.8	7.1	6.4	6.6
Tank 1 (250 mg/L)	8.1	7.4	6.5	5.5	5.7
Tank 2 (250 mg/L)	8.1	7.0	6.4	5.9	6.1
Tank 1 (750 mg/L)	8.2	7.1	6.2	5.9	6.0
Tank 2 (750 mg/L)	8.2	7.0	6.2	5.8	6.1

pH (Units)

Sample	0 hr.	24 hr.	48 hr.	72 hr.	96 hr.
Control Tank #1	6.6	7.3	6.7	6.8	7.2
Control Tank #2	6.7	7.3	6.8	6.5	7.2
Tank 1 (250 mg/L)	7.3	7.5	7.1	6.7	6.4
Tank 2 (250 mg/L)	7.3	7.4	7.1	6.7	6.2
Tank 1 (750 mg/L)	7.4	7.5	7.2	6.8	6.2
Tank 2 (750 mg/L)	7.4	7.5	7.2	6.8	6.3

NA--Not applicable.

SUMMARIZED WATER CHEMISTRY DATA AT TIME "0"

Lab No. w/ Concentration	Alkalinity[1] (mg/L)	Hardness[1] (mg/L)	Conductivity (umhos/cm)
Control Tank #1	40	40	85
1088-1 (750 mg/L)	34	38	70
1088-2 (750 mg/L)	38	40	75
1088-3 (750 mg/L)	36	30	60
1088-4 (750 mg/L)	32	38	60

[1]As $CaCO_3$.

SUMMARIZED WATER CHEMISTRY DATA AT 96 HOURS

Lab No. w/ Concentration	Alkalinity[1] (mg/L)	Hardness[1] (mg/L)	Conductivity (umhos/cm)
Control Tank #1	36	38	70
1088-1 (750 mg/L)	38	38	65
1088-2 (750 mg/L)	36	42	60
1088-3 (750 mg/L)	38	48	60
1088-4 (750 mg/L)	40	54	65

[1]As $CaCO_3$.

CHAIN OF CUSTODY AND SAMPLE IDENTIFICATION RECORD

ERM-West
Environmental
Resources
Management

1777 Botelho Drive
Suite 260
Walnut Creek, CA 94596
(415) 946-0455

Client: Riverside Cement Co.
Sampler (s): TWT
Date: 8-24-87
Weather: Hot, Sunny

Job Location: Riverside, CA
Job No: 178-02
No. of Samples Collected: _____

Sample ID #	Time	Sample Type Water Comp.	Water Grab	Soil Comp.	Soil Grab	Volume	No. of Contnrs. Contnr. Type	Preser-vative	Iced (Y/N)	Sampling Method	Analyses
BCG1-Top	1320			✓		1000 cc	1-Glass	None	Y	SCOOP	* See Comment
BCG1-Bottom	1520			✓		1000 cc	1-Glass	None	Y	SCOOP	*
											*
GKBH-Top	1650			✓		〃	〃	〃	Y	〃	*
GKBH Bottom	1745			✓		〃	〃	〃	Y	〃	*

Comments: Please mix Composite Samples before Analysis.

* Analyses Requested:

96-Hr. Fish Bioassay w/fathead Minnows
EPA 8270 - Extractable Organics
CAM Metals
Total Petroleum Hydrocarbons (1:1 wt. mod. for Soil)

Custody Record
Signature, Date/Time

Relinquished: [signature] 8-25-87 1209HRS.
Received: [signature]
Relinquished: _____
Received: _____
Relinquished: _____
Received: _____
Relinquished: _____
Received: _____

Name and Address of Receiving Laboratory
Curtis & Thompkins, Ltd.
1250 S. Boyle Av
Los Angeles, CA 90023

CHAIN OF CUSTODY AND SAMPLE IDENTIFICATION RECORD

ERM-West
Environmental
Resources
Management

1777 Botelho Drive
Suite 260
Walnut Creek, CA 94596
(415) 946-0455

Client: Riverside Cement
Sampler (s): TWT
Date: 8-24-87
Weather: Sunny & hot

Job Location: Riverside CA
Job No: 178-02
No. of Samples Collected:

Sample ID #	Time	Sample Type Water Comp.	Water Grab	Soil Comp.	Soil Grab	Volume	No. of Contnrs. Contnr. Type	Preservative	Iced (Y/N)	Sampling Method	Analyses
BC61 Top-N	1320				✓	~80cc	2 Brass Tubes	None	Y	Pushed Brass Tube	EPA 8240
BC61 Top-M	1415				✓	"	"	"	Y	"	"
BC61 Top-S	1430				✓	"	"	"	Y	"	"
BC61 Bottom-S	1520				✓	"	"	"	Y	"	"
BC61 Bottom-W	1545				✓	"	"	"	Y	"	"
BC61 Bottom-N	1555				✓	"	"	"	Y	"	"

BC61 - Top

BC61 - Bottom

Comments: Composite the first 3 pairs of grab sample tubes to get a value for BC61-Top and the second 3 pairs of grab sample tubes to get a value for BC61-Bottom

Custody Record
Signature, Date/Time

Relinquished: [signature] 8-25-87 1308HRS.
Received: [signature]
Relinquished:
Received:
Relinquished:
Received:
Relinquished:
Received:

Name and Address of Receiving Laboratory

Curtis & Thompkins, Ltd.
1250 S. Boyle Av
Los Angeles, CA 90023

CHAIN OF CUSTODY AND SAMPLE IDENTIFICATION RECORD

ERM-West
Environmental
Resources
Management

1777 Botelho Drive
Suite 260
Walnut Creek, CA 94596
(415) 946-0455

Client: Riverside Cement Co.
Sampler (s): TWT
Date: 8-24-87
Weather: Sunny & Hot

Job Location: 178-02/Riverside
Job No: 178-02
No. of Samples Collected: _____

Sample ID #	Time	Sample Type: Water Comp.	Water Grab	Soil Comp.	Soil Grab	Volume	No. of Contnrs. Contnr. Type	Preservative	Iced (Y/N)	Sampling Method	Analyses
GKBH Top-N (GKBH-Top)	1650				✓	~80 cc	2 Brass Tubes	None	Y	Pushed Brass Tube	EPA 8240
GKBH Top-M (GKBH-Top)	1710				✓	"	"	"	Y	"	"
GKBH Top-S (GKBH-Top)	1725				✓	"	"	"	Y	"	"
GKBH Bottom-S (GKBH-Bottom)	1745				✓	"	"	"	Y	"	"
GKBH Bottom-W (GKBH-Bottom)	1800				✓	"	"	"	Y	"	"
GKBH Bottom-N (GKBH-Bottom)	1815				✓	"	"	"	Y	"	"

Comments: Composite the first 3 pairs of grab sample tubes to give us a value for GKBH-Top and the second 3 pairs of grab sample tubes to give us a value for GKBH-Bottom.

Custody Record
Signature, Date/Time

Relinquished: [signature] 8-25-87 1308HRS
Received: _____
Relinquished: _____
Received: _____
Relinquished: _____
Received: _____
Relinquished: _____
Received: _____

Name and Address of Receiving Laboratory

Curtis & Thompkins Ltd.
1250 S. Boyle Av
Los Angeles, CA 90023

INVESTIGATION OF SOIL CONDITIONS BELOW AND ADJACENT TO THE FUEL STORAGE AT THE RIVERSIDE CEMENT CRESTMORE PLANT RIVERSIDE, CALIFORNIA March 27 - April 1, 1987

PREPARED BY

ERM-West
Walnut Creek, California

June 26, 1987

INVESTIGATION OF SOIL CONDITIONS BELOW AND ADJACENT TO THE FUEL STORAGE TANK AT THE RIVERSIDE CEMENT CRESTMORE PLANT RIVERSIDE, CALIFORNIA 27 MARCH -1 APRIL 1987

INTRODUCTION

This investigation focused on a large concrete tank located at the the Riverside Cement Company Crestmore Plant. The tank was historically used for fuel oil storage and more recently has been emptied and cleaned out. The plant is located at 1500 Rubidoux Boulevard in Riverside, California. Figure 1 shows the Plant location.

ERM-West commenced its investigation of soil conditions and chemistry beneath the tank in September 1986 by drilling two slant borings beneath the tank from outside the tank perimeter. A total of four samples, two from each boring, were collected from beneath the tank. Only one sample had detectable concentrations of total petroleum hydrocarbons: 410 mg/kg. Sample results from those two borings were included in the document titled "Closure Plan, Fuel Oil Storage Tank" that was submitted to the Riverside County Health Department and the fire department in March 1987.

Further investigation of soil conditions and chemistry was performed 27 March 1987 and 1 April 1987 and is described in this report. Field work included drilling vertical borings through the concrete tank floor, sample collection of soil from borings and the tank wall berm for chemical analysis and field description of soil samples. The purpose of this investigation was to further assess the extent and magnitude of potential soil contamination that may have been caused by fuel oil stored in the tank.

SCOPE OF WORK

Figure 2 shows the locations of the six tank wall soil sampling points, the four vertical borings advanced during this further investigation, and the locations of the two original slant borings drilled during the initial investigation by ERM-West. The simplified plan view shows the tank as if it were still completely intact, however, portions of the tank wall have been destroyed for investigatory purposes. Locations shown for sampling points and borings are approximate.

Four vertical borings were advanced to depths of 25.5 to 27.5 feet below the floor of the tank. At each boring, samples were collected approximately every five feet; in some cases, additional samples were collected to more precisely characterize soil chemistry. Six samples of soil material from the berm supporting the tank walls were collected for field description and chemical analysis.

Field descriptions from soil boring samples and tank wall soil samples included notes describing the soil or rock type and any odors or stains observed in the samples. All soil samples selected for chemical analysis were analyzed for total petroleum hydrocarbons (TPH).

1,300 mg/kg and minimum concentrations less than 30 mg/kg. Vertical boring 1, nearest to the sump, had the highest concentrations. Laboratory reports of TPH data from borings and tank wall soil samples are given in Appendix D. Boring logs in Appendix C give notes on the observation of odors and stains observed in soil samples. These observations correlate well with laboratory chemistry.

Table 1 presents presents all TPH data for the vertical borings and verifies field observations that the relative degree of contamination changed sharply across some vertical interfaces. Some of the six-inch long soil samples that were split to analyze the cleaner portions separately from the more contaminated portions showed striking results. For example, in boring 1, the TPH concentration ranged from 13,000 mg/kg to 27 mg/kg over a distance of less than six inches.

Table 2 presents tank wall soil chemistry sample data. Figure 5 shows the distribution of TPH concentrations found in tank wall soil samples at their collection points around the perimeter of the tank in plan view. Tank wall sample 6, the only seriously contaminated tank wall sample, had a concentration three orders of magnitude greater than samples 1-5: 47,000 mg/kg. The tank was completely broken away at sampling point 6 allowing collection of this sample from the former interface between the tank wall and the soil berm.

Figure 6 illustrates the vertical distribution of TPH concentrations found in soil samples from vertical borings 1-4. If TPH concentrations were assumed to change linearly (concentration versus depth) between sampling points, then the areas enclosed by the lines plotted in Figure 6 suggest that boring 1 is clearly the most contaminated throughout its depth and boring 3 is much less contaminated than the other three borings. Borings 2 and 3 have their peak contamination at approximately 15 feet deep and borings 1 and 4 have their peak contamination at approximately 20 feet deep based on available data. TPH concentrations appear to decrease to insignificant levels at a depth of 20 feet in borings 2 and 3 and at approximately 27 feet in borings 1 and 4 based on the projections in Figure 6.

Figure 7 shows boring stratigraphy and an extrapolation of chemical analysis data projected onto a North-South crossection through the tank. Data are not sufficient to present such a projection as a reliable estimate of the distribution of a TPH plume, but it is presented here to examine the relationship between observed stratigraphy and TPH concentrations. Actual stratigraphy and chemistry along such a line or at other points below the tank may differ considerably from this illustration. The projected TPH concentrations suggest that a primary source may be near boring 1: possibly the sump shown in Figure 1. Although the relatively tight clay layers in borings 1 and 4 may have attenuated the downward migration of hydrocarbons in this area, data show there has been significant vertical migration through a depth of about 27 feet below land surface (boring 1). Moving North toward boring 2 and away from the sump, it appears that much smaller concentrations of petroleum hydrocarbons are present in the soil but that significant amounts have migrated downward through or laterally to below the 1 foot clay zones at about 14 feet in borings 2 and 3.

It apears that large amounts of petroleum hydrocarbons have not migrated through the more permeable sand and silt zones logged in borings 2 and 3 below 14 feet. This may possibly be explained by the fact that in the vadose zone, the capillary forces which are normally much greater in clays than in sands for instance, are significant relative to gravitational forces; these capillary forces in the clays may be preventing the downward movement of contaminants. This hypothesis is plausible in an environment where infiltration of rainwater is prevented from flushing contaminants down to the saturated zone such as would be expected under a concrete floor.

CONCLUSIONS

Total petroleum hydrocarbon concentrations in five of six soil samples collected adjacent to the oil tank wall were less than 45 mg/kg. Tank wall sample 6 had a TPH concentration of 47,000 mg/kg.

All borings had one or more sample intervals with significant TPH concentrations but also had minimum concentrations less than 30 mg/kg. Although significant TPH concentrations appear to extend roughly 23 to 27 feet beneath the Southern end of the tank floor, the greatest depth of significant TPH concentrations may be as shallow as about 17 feet beneath the Northern portion of the tank floor . Borings in the Southern half of the tank near the sump had much higher TPH concentrations up to a maximum of 129,000 mg/kg in boring 1. Sharp changes in TPH concentrations observed across horizontal interfaces indicates that estimates of the vertical distribution of TPH concentrations should be evaluated with caution.

The comparison of soil stratigraphy and apparent distribution of petroleum hydrocarbons suggests that contaminants have apparently moved downward through significant thicknessses of clays near borings 1 and 4. However, that comparison also suggests that the interface with sand below clay in boring 2 at 15 feet below the tank floor and the interface with silt below clay in boring 3 at 15 feet may be exerting an attenuating influence on vertical migration. The fact that clays have much stronger capillary forces than sand or silt and that the significance of gravitational forces affecting fluid migration is reduced relative to capillary forces in the vadose zone may explain the apparent attenuation at these interfaces. This potential control feature may be lost if rainwater infiltration is allowed in this area.

TABLE 1 - Total Petroleum Hydrocarbon Concentrations in mg/kg in Vertical Borings 1-4

Depth(ft.)*	Boring #1	Boring #2	Boring #3	Boring #4
1-1.5		490		
4.5-5	31,000		34	
5-5.5				10,000
10-10.5	20,000	34	26	15,000
14.5-15		67,000/12,000	1,300	
15-15.5	30,000			18,000
20-20.5	129,000/73,500		44	37,000
21-21.5		25		
25-25.5	16,000	<1	15	
26-26.5				28
27-27.5	13,000/27			

TABLE 2 - Total Petroleum Hydrocarbon Concentrations in Samples of Soil adjacent to Tank Wall

Sampling Point	TPH (mg/kg)
Tank Wall #1	13
Tank Wall #2	14
Tank Wall #3	30
Tank Wall #4	16
Tank Wall #5	44
Tank Wall #6 (Access Ramp Wall)	47,000

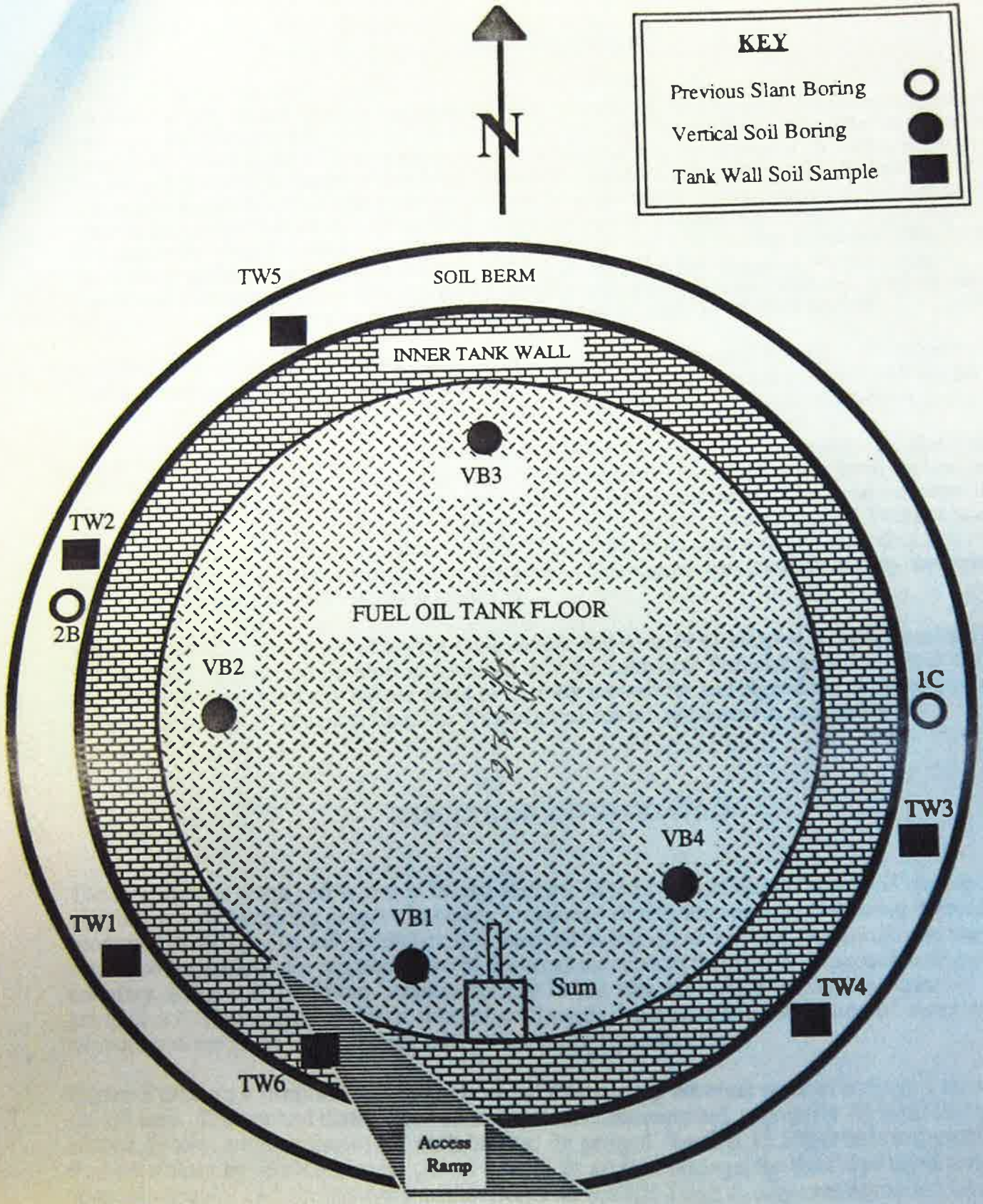
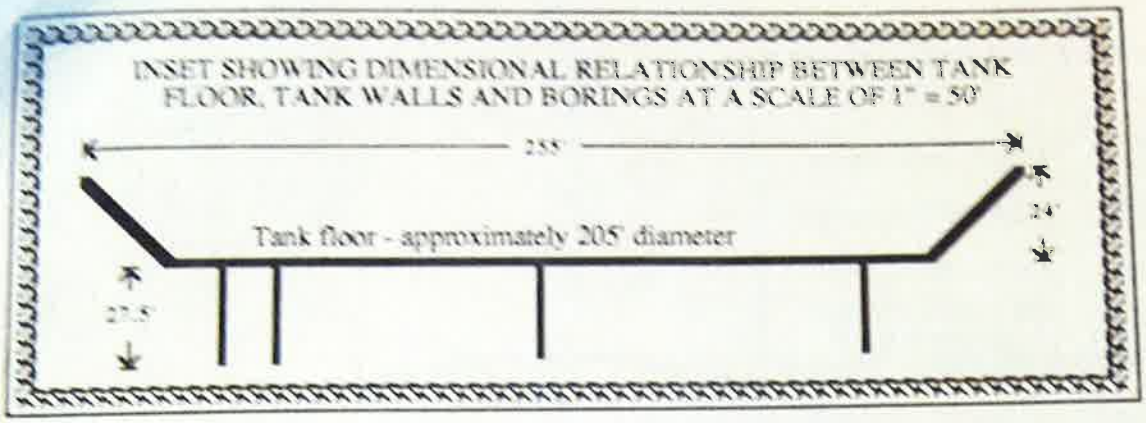


FIGURE 2

SIMPLIFIED PLAN VIEW OF FUEL OIL TANK SHOWING APPROXIMATE LOCATION OF SAMPLING POINTS (Not to Scale)



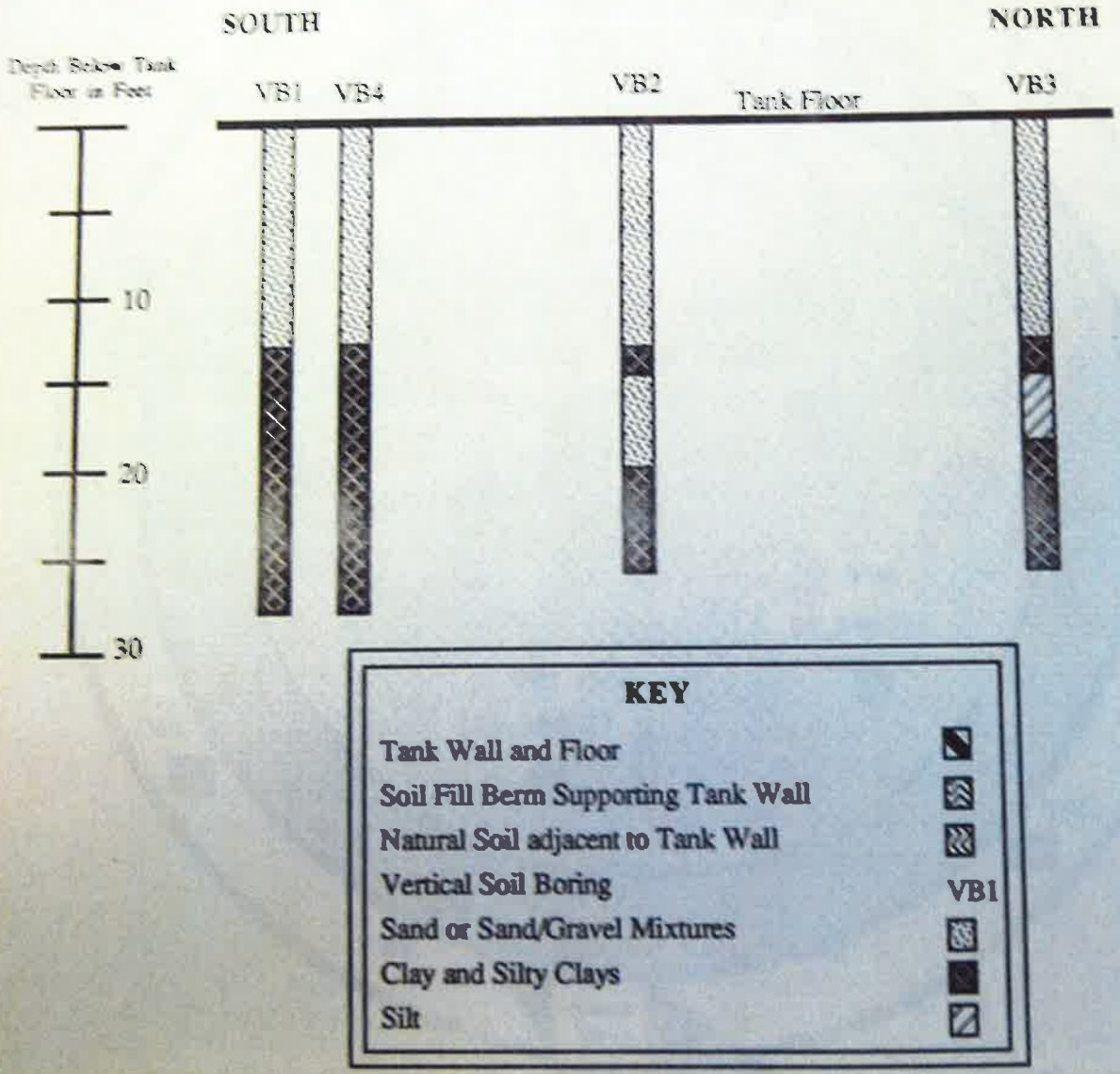


FIGURE 3

SIMPLIFIED CROSSECTION OF OIL TANK SHOWING VERTICAL BORINGS

(TANK DIMENSIONS ARE NOT TO SCALE, BORING LOCATIONS ARE APPROXIMATE AND SOIL CONDITIONS ENCOUNTERED BELOW TANK ARE GENERALIZED)

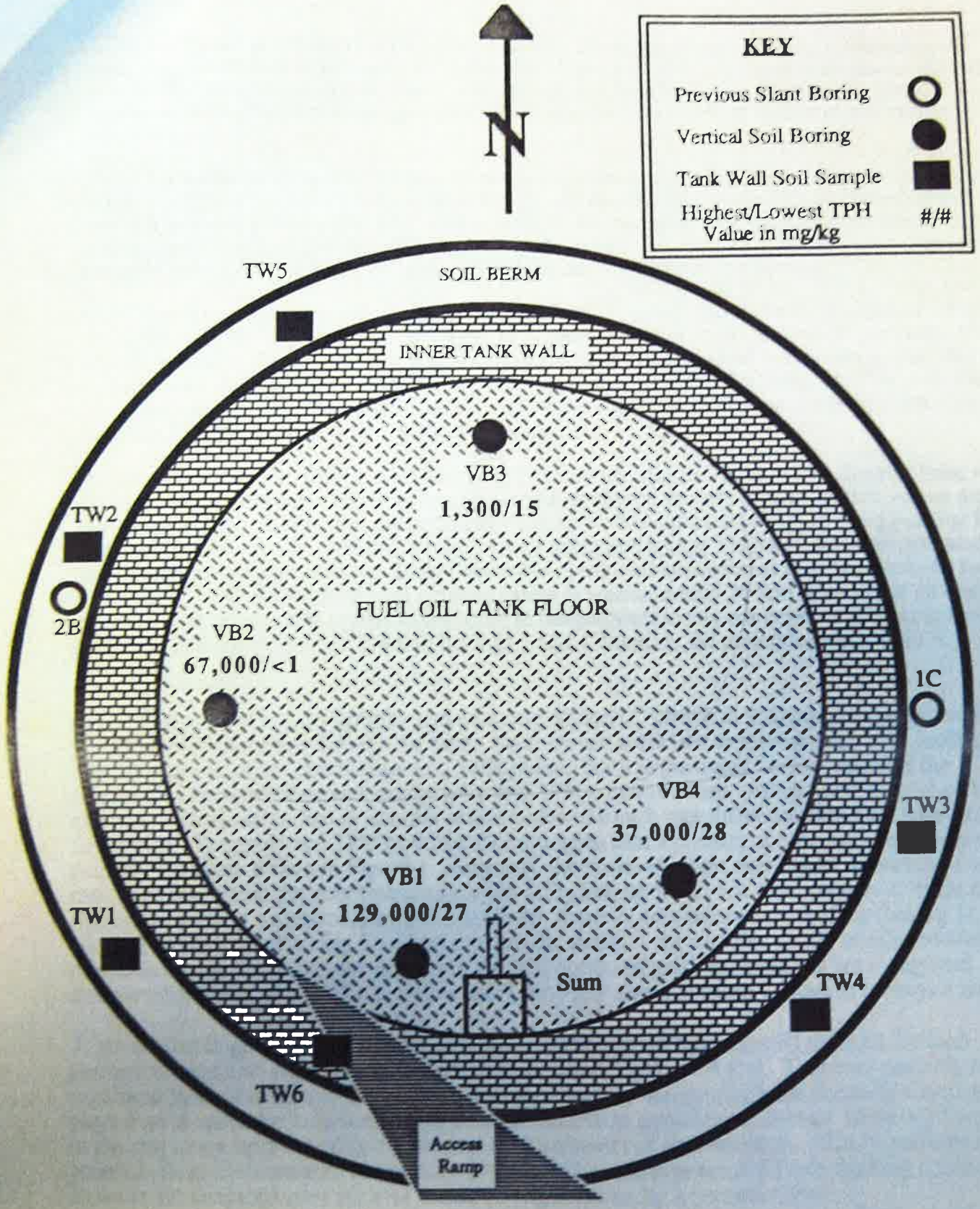


FIGURE 4

SIMPLIFIED PLAN VIEW OF FUEL OIL TANK SHOWING RANGE OF TPH CONCENTRATIONS FOUND IN VERTICAL BORINGS (Not to Scale)

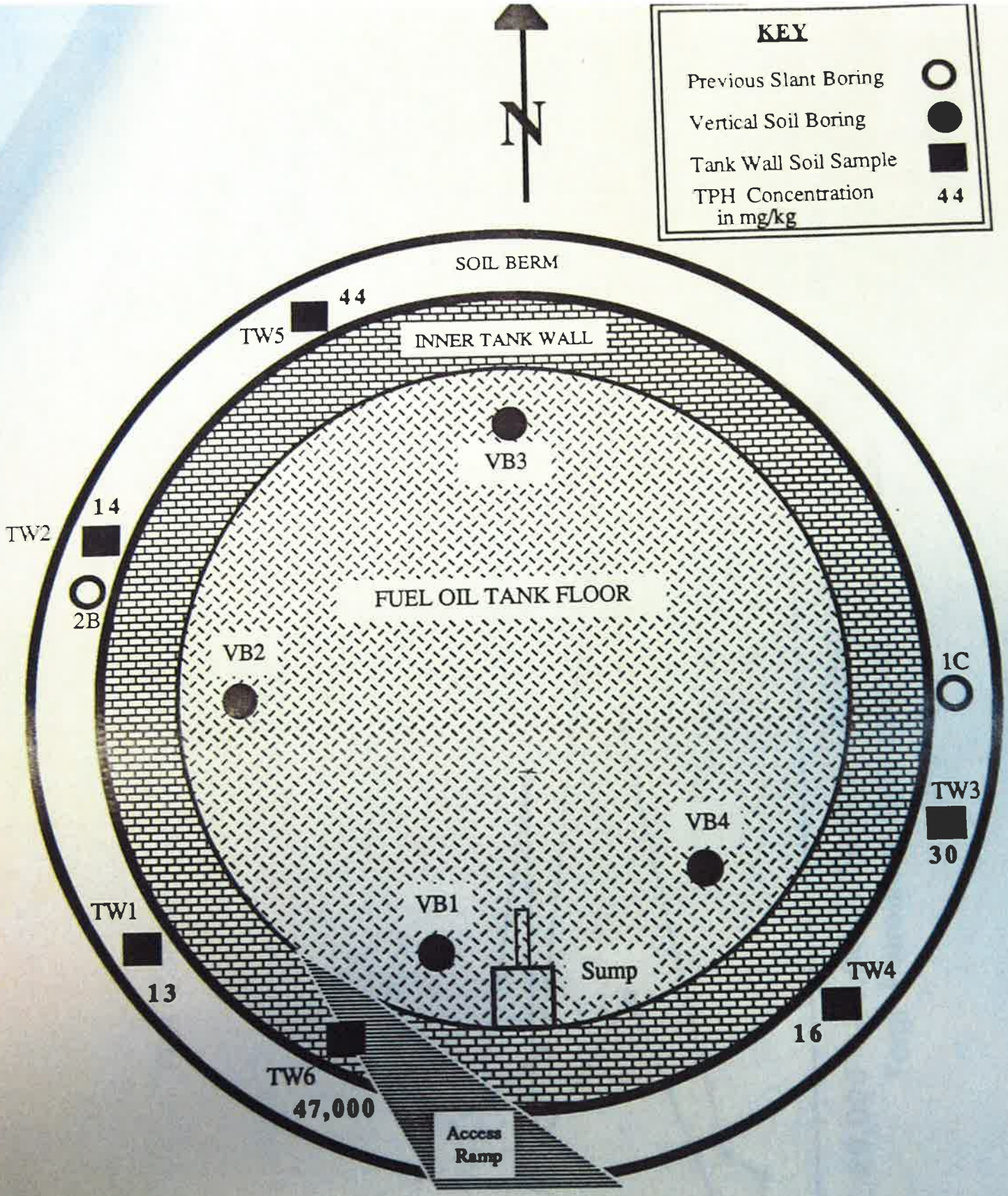


FIGURE 5

SIMPLIFIED PLAN VIEW OF FUEL OIL TANK SHOWING TPH CONCENTRATIONS FOUND IN TANK WALL SOIL SAMPLES (Not to Scale)

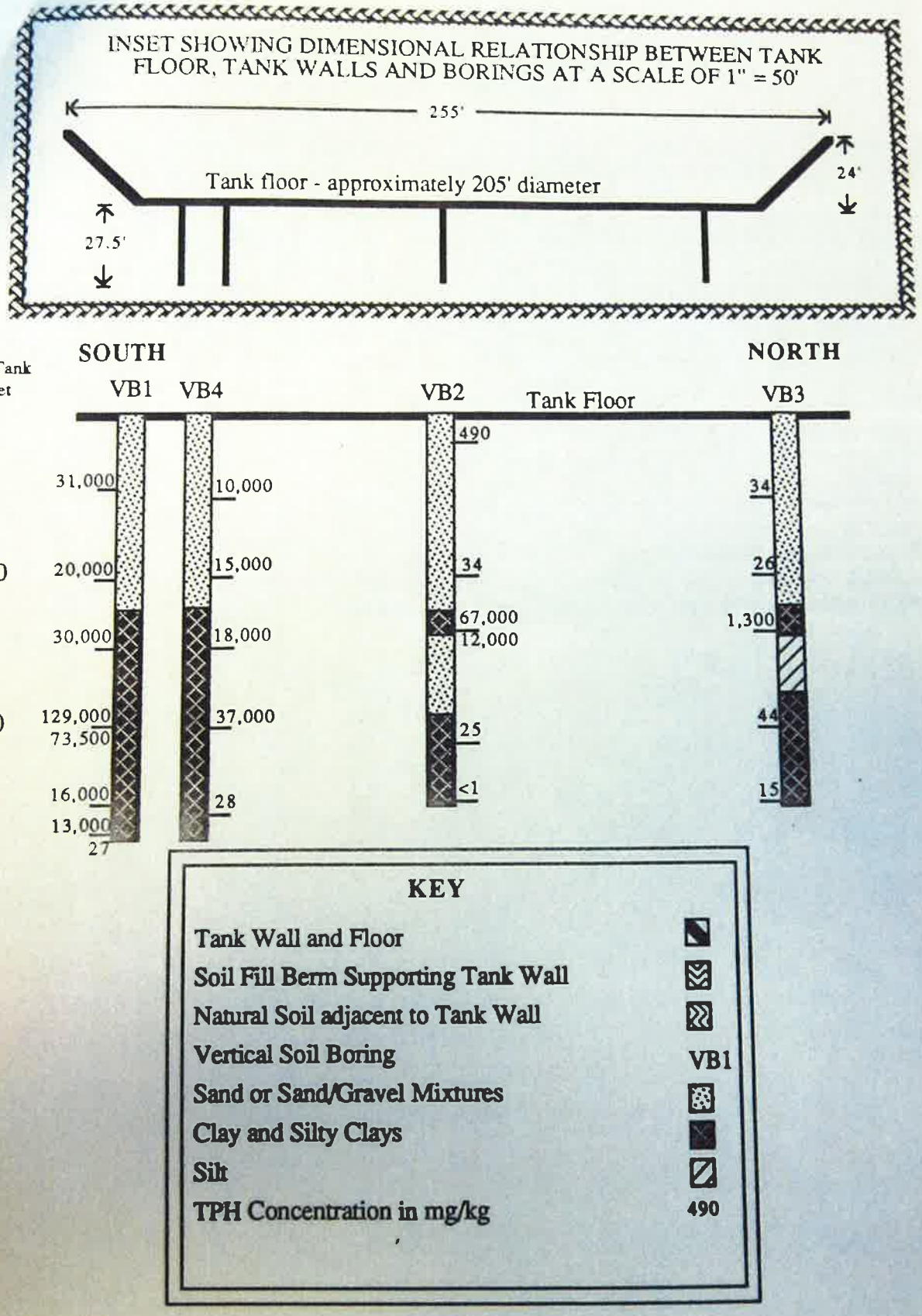


FIGURE 7

SIMPLIFIED CROSSECTION OF OIL TANK SHOWING TPH CONCENTRATIONS FOUND IN SAMPLES FROM VERTICAL BORINGS

Riverside Cement Company

A Gifford-Hill Company - Member of THE BEAZER GROUP

1500 Rubidoux Boulevard • Riverside, California 92508
(Mailing Address: P.O. Box 832 • Riverside, California 92502)

Phone (714) 683-3660

July 6, 1987

County of Riverside
Department of Health Services
Underground Tank Division
3636 University Avenue
Riverside, CA 92501

Attention: Mr. Joe Asbury,
Hazardous Materials Specialist

Dear Mr. Asbury,

This correspondence is in response to your request to be advised on the course of events surrounding the closure of our fuel oil storage tank located at the Riverside Cement Company, Crestmore Plant location.

As this is a very unusual tank, both in size and method of construction, investigations of soil chemistry beneath the tank began in 1986. Based on these initial findings, we felt reasonably confident that the integrity of the concrete floor of the tank had not been disturbed. Only one sample of four taken from two slant borings had detectable concentrations of total petroleum hydrocarbon: 410 MG/Kg.

Further investigation of soil conditions and chemistry were performed during the first quarter of this year. Field work included vertical borings through the concrete tank floor, sample collection of soil from the borings, and the tank wall berm for chemical analysis and field description of soil samples. The purpose of this investigation was to further assess the extent and magnitude of potential soil contamination that may have been caused by fuel oil stored in the tank.

All of the aforementioned investigative work was conducted at our request by our environmental consultants, E.R.M.- West of Walnut Creek, CA. Their results of analysis and results of the investigation may be reviewed via two documents, (1) "Closure Plan, Fuel Oil Storage Tank" and (2) "Investigation of Soil Conditions Below and Adjacent to the Fuel Oil Storage at the Riverside Cement Company, Crestmore Plant". These documents may be reviewed upon request at our Plant location.

Coordinating our efforts and results with the Riverside County, Underground Storage Tanks Division of the Department of Health Services, we determined that the magnitude of the soils contaminated, volume wise, dictated that methods other than usual would be investigated. After several meetings with Dr. David Leu, Chief of the Alternative Technology Division of the California State Toxic Substance Control Division, and his staff, we have come to the conclusion that we have four options open to us, potentially.

1. Remove contaminated soils and dispose of same at a Class I landfill.

2. Remove the soil to another area of the Plant, and commence bio-degredation.

3. Remove the soil, utilize it for "road tack" under A. C. paving.

4. Remove the soil, then burn this material in one of our rotary cement kilns.

During the subsequent discussions to review these options, the following is a synopsis of the pro's and con's of each option.

Option 1. The estimated volume of material involved is approximately 20,000 yds.^{3} This option would be very expensive and, as environmental concerns for Class I facilities are mounting daily, does not seem a good choice environmentally or financially.

Option 2. A sample "Pilot Farm" was established several months ago with contaminated soil removed from the tank floor. This "farm" was sampled then "seeded" with micro-organisms and maintained in a method accepted in biodegredation projects. The analysis revealed that this would be a viable option, but a very long term project involving large costs maintaining the soils to provide proper propagation of the micro-organisms.

Option 3. After meeting with construction tradesmen and sieve analysis results being reviewed, it was determined that this material was not suitable for "road tack", but could be used for sub-road fill, in small quantities. Again, a long term solution.

Option 4. Due primarily to the fact that we are a pyro processing industry dealing with large volume consumption of raw material components, and permitted to burn several types of fuels of which "Bunker C" is one of, this option seems the most expedient, cost effective, and environmentally positive than any other alternative. The

attached M.S.D.S. shows the chemical breakdown of one of our raw material components, "Capo Clay". Also attached is the chemical analysis of the contaminated soil. Comparison of these two documents will show that the contaminated material is, in fact, a component used in our process, but it does contain a B.T.U. value due to the contamination by the "Bunker C" fuel oil stored in the tank.

After discussion and review by the staff of the Alternative Technology Division, we concluded as thus:

1. The soil is chemically similar to a raw material normally used in our process for the manufacture of Portland Cement clinker.

2. The fuel contaminate is a fuel we routinely use during the pryo processing cycle of our manufacturing process.

Based on these two facts, we are proceeding to install equipment necessary to allow us to insulflate this contaminated soil in our rotary kiln. Our intention is to pulverize the soil to an approximate average of fineness of 60 - 70% -200 mesh sieve size, then blow this dust into the firing end of the rotary kiln, along with the firing of 11-13 TPH of pulverized, low sulfur coal, that we normally use during the firing of our kiln. Our present estimate on the total consumption time for this soil is August 15, 1987, however, as we are just starting the excavation project, this date could move forward or back.

I hope this letter clarifies our status at present, and allows you to understand our goals for the future. Any additional information desired can be requested either through the Tank Division of Riverside County Department of Health Services, or by contact with the undersigned at the Crestmore Plant of the Riverside Cement Company. Thank you again for your cooperation. As in the past, we understand your obligations to the community and the environment, and will do all that is necessary to assist you in maintaining your goals.

Best Regards,
RIVERSIDE CEMENT COMPANY

Patrick Hill

Pat Hill
Projects Manager

Enc.
PH/pf
cc: R. B. Rieser, RCC
Dr. R. Stone, ERM-West
Mr. Pat Cafferty - Landels, Ripley & Diamond
Dr. David Leu - DOHS, Toxic Substance Control

Riverside Cement Company

A GIFFORD-HILL COMPANY

Post Office Box 832
Riverside, California 92502

1500 Rubidoux Boulevard
Telephone: 714/683-3660

August 4, 1987

Mr. Joe Asbury
Hazardous Materials Specialist
County of Riverside
Department of Health Services
3636 University Avenue
Riverside, CA 92501

RE: Planned Activities Surrounding the Closure of
The Underground Fuel Oil Storage Tank at
Riverside Cement Company, Crestmore Plant

Dear Joe:

We have thus far removed 75,000 tons of material from the excavation connected with the closure of our Bunker C fuel oil storage tank. Of these tons, approximately 50,000 tons were considered minor, or grossly contaminated, and were stockpiled into several different locations within the Plant premises. The remaining excavated soil has either been used for fill during the excavation, and for material to build ramps, or stockpiled for fill to reclaim this pit. Random samples of the stockpiled soils have been tested via a mobile laboratory operated by GeoTest Inc., an independent laboratory. The tests run are via the "freon extraction method" measuring total petroleum hydrocarbons (TPH) in part per million (PPM). Results are shown on attached documents.

Our current plan for disposal is three-fold in scope. Working with the lead agency, Riverside County Department of Health Services, we have developed these three scenarios and they will be implemented in the following order:

Alternative #1

As the chemical analysis of the contaminated soil is nearly identical to the compounds found in one of our typical raw material components, i.e. "Capo clay", we have, for the past two weeks, been substituting these soils in place of our normal clay additions.

We ascertained very quickly that this option could be utilized, to make an acceptable quality product, by ASTM standards relating to our industry. We also quickly realized that in maintaining specifications, which are met by proper proportioning of raw components, the time period necessary for total consumption was very extensive. Normal consumption of "Capo clay" in our raw mix design is approximately 4000 to 5000 tons per month. As we extimate we have 50,000 tons of contaminated materials, one can easily see it would take nearly one year to totally consume all the material.

This time period was unacceptable to the management of Riverside Cement, as a decision was reached to terminate the operation of our #2 Grey Kiln on or about August 1, 1987. Due to the nature and magnitude of our situation at Crestmore, upper management has consented to extend this shutdown date until the contaminated soil issue is resolved, but not exceeding a December 1, 1987 mandate. This is a purely economic move, and each week's extension of our pyroprocessing portion of the manufacturing process, is causing additional financial burdens on the Corporation as a whole.

Bearing all of this in mind, we have formulated a consumption timetable which will allow for eliminating the material totally, or as close as possible. This methodology requires massive addition of the contaminated soils blended with the other components. It also calls for insulflation of contaminated soil through addition into the firing end of our rotary kiln. In addition, we are in the process of installing a metered system that will allow for addition of precrushed contaminated soil in with our feed system that will be put into action based on the ability of the process to withstand any additional soil, without destroying equipment within or after the rotary kiln.

With these 3 systems in place and functioning, it is feasible that we have an opportunity to reduce or eliminate entirely the amount of contaminated soil we have excavated.

On the downside of this endeavor, we will, in utilizing the three systems, produce a product which will be greatly below standards and specifications acceptable by the industry. Because of this, we will be required to stockpile this material, and blend it with normal quality product in very minute quantities, over a very long period of time. Naturally, this will again be a financial burden, as normal, modern, material handling methods will not be allowed during the stockpiling or reclaiming of this large amount of materials.

Based on all of this information, we are pursuing Alternative #1 as quickly as logistics permit. We will attempt to eradicate our problem as quickly as the process permits. If further refractory or equipment damage occurs, we will judge each case on its economic merit, as to continuing this course of action. Fallback to Alternative #1 is Alternative #2.

Alternative #2

Laboratory studies, utilizing controlled conditions (i.e. weighed amounts of materials, and an electric muffle) have shown that grossly contaminated soil from the excavation have received massive reduction in TPH levels, upon as little as 1 hour at 1000°F (see Attachment). Realizing that our feed system and our rotary kiln are far from "controlled conditions", we feel that an attempt at converting the contaminated soil to "virgin soils" is a good possibility using our in-place pyroprocessing system.

We have placed in our system a TPH monitoring station, which produces hard copy of our TPH levels in our gas stream prior to, and during, our contaminated burns. Again, noting that we are using much higher temperatures during our normal manufacturing process, our monitoring has not shown an appreciable increase in TPH levels while monitoring has occurred. This data leads us to the assumption that a straightforward "virgin soil" burn is a possible alternative toward the solution to our problem.

From the financial standpoint, this option leaves us with very little other than 50,000 tons of sterile dirt, and the many costs in obtaining its sterility. Off-quality product, even though it must be handled many times, and blended in very small quantities, is a better alternative economically speaking, via recapturing product.

If this alternative is attempted, and for any reason is found to be an unacceptable solution, we would fall back to our final solution, which is Alternative #3.

Alternative #3

Riverside Cement Company, Crestmore Plant, has a "sister" plant located in San Bernardino County, specifically, the community of Oro Grande, California. This plant operates 7 rotary kilns and

routinely consumes 200,000 tons per month of raw materials, during normal production months. At this location, an oil spill occurred, in which San Bernardino County Department of Health Services assisted management of the Oro Grande Plant in resolving. They were allowed to mix the contaminated soil with their raw materials, and consumed the mixture in their rotary kilns. The quantity of materials consumed was very small in comparison to our spill (i.e. 250 tons) but was nonetheless allowed.

The Crestmore Plant location, routinely receives raw materials and clinker from our Oro Grande facility, utilizing a trucking firm named D.T.I. (Dalton Trucking, Inc.). Due to the quantities of materials which DTI handles for the Riverside Division, they have received from the California PUC a deviated hauling rate, which is economically lucrative versus the normal PUC rates.

If the jurisdictional differences between Riverside County, and San Bernardino County could be agreed upon and resolved, we would propose that we utilize a backhaul from the DTI trucks, and substitute the contaminated soil from Crestmore as a raw material component we normally supply to Oro Grande (i.e. "Capo clay"). To Riverside Cement this is a reasonably economic solution to our current situation, via the PUC deviated rate.

In summary, our proposals call for the utilization of alternative #1, until such time that its realized as an uneconomic alternative. We would then propose we attempt Alternative #2, for a sterile soil burn. We feel this is viable, but our concerns for TPH emissions are not optimistic. If Alternative #2 is not fruitful, we would then hope the two-county regulatory agencies could come to a jurisdictional agreement that would allow for alternative #3.

Respectfully yours,

Patrick M. Hill
Production/Project Manager

PMH:kk

Riverside Cement Company

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Phone (714) 683-3660

September 23, 1987

County of Riverside
Department of Health Services
3636 University Avenue
Riverside, California 92501

Attention: Mr. Joe Asbury
Hazardous Materials Specialist

Dear Joe:

In response to your request for information regarding our current status and future planned activities surrounding the final closure of the large underground storage tank located at our Crestmore Plant, I will discuss, in depth, our situation.

A. Efforts to Date

Primary efforts to date have involved excavation of soil containing TPH in excess of 500 ppm from the area of the former six million gallon fuel storage tank. By way of aerial photography and subsequent aerial survey, we have estimated that the total number of tons excavated from the area underneath and adjacent to the former storage tank is approximaterly 70,531 tons.

Attachment #1 is comprised of several aerial contour drawings of the underground storage tank excavation site and of the stock pile areas located in the Plant. Legends have been inserted on these drawings to show sample numbers and dates taken. These drawings attempt to show relative sampling stations. Also in the attachment will be found the laboratory analysis of total petroleum hydrocarbons in parts per million, as derived by Geotest Laboratories, an independent subcontractor. Sample numbers found on the drawings can be referenced on the Geotest Laboratory data and hydrocarbon levels can be established.

As you are aware, and with your approval, we attempted several alternative methods of processing these raw materials within our plant processing equipment. One of these methods addressed raw material we mutually considered very high in petroleum hydrocarbon content. This raw material was stockpiled in an existing, empty, raw material stock pile area, commonly referred to as a "raw bay". We ground this material in our raw

milling system and eventually conveyed it to an isolated raw material storage silo. During this time, we were involved in the design and construction of an insulflation system to allow us to "pump" this material into the firing end of our grey Portland Cement rotary kiln.

The above being accomplished, we began the addition of insulflated material at the maximum rate we were able to consume, without effecting our process. In this fashion, we were capable of consuming approximately 1,000 tons of this material. As the kiln was shut down prematurely, we currently have approximately 1,000 tons of this material stockpiled in the isolated silo. This represents the remainder of the high petroleum hydrocarbon content materials.

One item is of interest regarding observations made during the insulflation process; the insulflation resulted in a reduction in the nitrous oxides emission levels! Because of our continuous monitoring equipment, we observed periods of reduced NOx levels while insulflation dust was being injected. The reduction level varied considerably, but its overall effect was noticeable.

Another alternative method employed at Crestmore addressed the raw material with lower petroleum hydrocarbon levels, which was removed from around and under the tank during excavation. As this material was very similar in chemical composition to our raw material (Capo clay) (see Attachment II), we built several raw material mounds blending all ingredients with different quantities of the clayey soil from the excavation. We effectively consumed these raw material mounds in our grey cement kiln during the normal course of activities routine to the manufacture of Portland Cement clinker.

During our burning process, we routinely monitor NOx, SOx, O2, and CO, along with many temperature pick up points that are routine to our pyroprocessing. We also added to our instrumentation, a rental piece of hardware obtained via KVB Co. This device monitored total petroleum hydrocarbons, in parts per million, drawing the sample from the exit gas stream behind our I. D. fan. This system was operated on an 8 hr./day basis (when the kiln was in operation, and when the device was capable of use). In this manner, we were able to monitor TPH levels at 15 minute intervals from our Main Control Room.

It was quickly ascertained that this method could be effectively used without any adverse effect on the environment or our product. However, due to the large amount of soils excavated, it also became apparent that the time frame required to introduce this material as a raw material would be approximately one and one-half years -- a time period inconsistent with the long-planned termination of operation of our grey cement kiln scheduled for shortly after August 1, 1987.

Upon realizing that we would not have the time necessary to "routinely" consume the remaining tons of stockpiled raw materials, we changed our

processing philosophy to attempt to process the stockpiled soil more rapidly. Initially, the material we utilized was processed into good quality Portland Cement clinker. With the change in philosophy, we increased our addition rate of the stockpiled soils up to the point of manufacturing clinker that was below A.S.T.M. Specifications. This clinker was isolated and stockpiled in an area not normally used for clinker storage and will be blended in with good quality clinker at a rate that will not effect the quality of the finish cement.

This was our mode of operation until the grey kiln system was damaged beyond the extent of economical repair. At that point, we ceased burning in the kiln to re-evaluate our position. Our re-evaluation resulted in the following conclusions:

1. The clayey material excavated under and around the tank are a chemical equivalent to a product routinely consumed during the pyroprocessing portion of the Portland Cement clinker manufacturing process.

2. The Bunker "C" (#6) fuel oil which is contained in this raw material is immobile and shows no tendency to migrate from its place in the soil.

3. This raw material does possess a residual fuel content. (Approximately 500 B.T.U./lb.).

4. It has been shown by the Crestmore experiments, conducted in concert with the Riverside County D.O.H.S., that this particular soil, raw material blended in the proper proportions, can effectively be used as a substitute raw material to manufacture Portland Cement clinker in a cement kiln, with no adverse effects on the environment, the process, or the equipment.

5. Because of the low risk of contamination and the large quantity of stockpiled raw materials, it does not appear feasible or reasonable to dispose of these soils in a Class I landfill.

6. Although Crestmore no longer has at its disposal the necessary equipment used during the manufacture of Porland Cement clinker, we do operate within our division a "sister plant" located at Oro Grande, California, in San Bernardino County. They possess the necessary equipment and processing expertise to allow for the blending and consumption of the stockpiled raw materials.

7. The Crestmore Plant routinely receives raw materials and clinker from the Oro Grande facility. A subcontractor, Dalton Trucking Industries, daily has a minimum of 110 double trailer bottom dumps running in a circuit from Oro Grande to Crestmore, with an empty return. (This type of tractor/trailer typically hauls 27 tons each.)

8. Because of the monthly volumes involved, D.T.I., on behalf of Riverside Cement, applied for and was granted a "deviated rate" from the California P.U.C. As a result, the costs associated with "back-hauling" the stockpiled materials to our Oro Grande facility, as a substitute raw material, is economically viable, versus typical P.U.C. rate drayage.

B. Proposal For Further Use of Stockpiled Soils

All of the above information was studied and discussed at length with you and the appropriate government regulatory officers. In summary, I will outline our proposal for final disposition of our stockpiled raw materials.

We propose that permission to burn the stockpiled soils be obtained from the San Bernardino County Air Pollution Control District. We are permitted, under a long history of permits, to burn raw material components, normal to the chemical composition required for Portland Cement, to manufacture clinker. We are also permitted to burn several different types of fuel, relative to the pyroprocessing portion of the process. (Bunker "C" or #6 fuel oil being one type.) Thus, burning the stockpiled materials should be viewed as nothing unusual or out of the ordinary.

Utilizing D.T.I. trucks on a back-haul arrangement, we can load the stockpiled soils for transport to Oro Grande. These trucks are all equipped with tarpaulins and they will routinely be used. Routing for these back-haul vehicles will be the same as the empty vehicles (shown on Attachment III) and, as such, will have no additional impact on the traffic flow normal for this route. We feel we can load a minimum of 37 truck loads per day for back-haul. This minimum number of trucks would calculate a time table of ~~77~~ 10 five day weeks necessary for the transport of stockpiled soils.

The proposed stockpile area at the Oro Grande facility is shown on Attachment IV. Historically, this area was typically used for stockpiled Capo clay, and has been built-up and compacted through the years of use. This, coupled with the physical nature of Capo clay, we feel is an ideal stockpile site and will be impervious to migration into the subsoils. The area in question will be properly bermed for containment.

Our Oro Grande facility operates seven (7) rotary cement kilns and routinely consumes 150,000 tons of proportioned raw materials per month, during normal production. The Oro Grande plant management team feel that they can substitute 500 tons per week of the stockpiled soil in place of Capo clay, and produce a quality product virtually unchanged in all regards to typical Portland Cement clinker. Compared to total production, the 500 tons per week estimate is obviously conservative. Nevertheless, at this conservative rate, the stockpiled soils will be consumed over 88 weeks (22 months).

I hope that the above scenario can be approved by all appropriate regulatory agencies as a reasonable solution to our current situation. It is also our hope that, with your assistance and the assistance of the California State Alternative Technologies Department, we can expeditiously begin transferring the stockpiled soils to Oro Grande and begin the burning of same with our process.

As you are aware, since being commenced by Riverside Cement Co., this project has imposed a large financial burden. Since the start of the project in late 1986, until the excavation was completed in August, 1987, we have expended in excess of $600,000. In keeping with the Company philosophy of being "a good neighbor", and a "concerned citizen", we have kept all regulatory agencies fully apprised of our actions. In addition to the lead agency, the County of Riverside Department of Health Services Underground Tank Division, we have cooperated with and received support from representatives of the State of California Alternative Technology Division, the South Coast Air Quality Management District, the Federal E.P.A., and the Regional Water Quality Board. We have also met with the representatives of the San Bernardino County Air Quality Control District, in the high desert, to discuss and obtain their input.

It has been our goal since the inception of this project to return the area excavated to grade elevation. To accomplish this, we propose to use soil indigenous to the Plant, and excavated material possessing documented total petroleum hydrocarbon levels acceptable to the lead agency. We will then place nutritious top soil as a cap and hydroseed the entire area. This will evolve into a greenbelt enclave within the Plant where we plan to plant trees and create an employee recreation area for use during lunches and breaks.

The cost surrounding the aforementioned ecological endeavors are relatively high. Additionally, the cost of transporting this quantity of materials for stockpiling and ultimate consumption, even utilizing a "deviated rate", are outstanding. The combined estimated cost for the total closure of this very unusual tank will be in excess of $700,000.00. As you have stated in the past, the type of regard for environmental concerns, as demonstrated by Riverside Cement Company, has been exemplary. It is my belief that we have pursued this project diligently, with all of the tools at our disposal. We have demonstrated our integrity and credibility at all times. The cooperation we have received from the "lead agency" has been exceptional and has allowed us to advance this tank closure towards a successful conclusion.

I believe this summary contains all the information that has been requested. If, after review, you wish additional information, I will be available to meet or correspond with you at any mutually agreeable time. Thank you once again for your cooperation and assistance throughout this project.

Best regards,
RIVERSIDE CEMENT COMPANY

G-1417

Patrick M. Hill

ATTACHMENT I

GEOTEST

An Environmental Monitoring and Testing Service

FIELD LABORATORY RESULTS REPORT

PREPARED FOR

RIVERSIDE CEMENT CO.

ANALYSIS OF HYDROCARBON CONTENT BY INFRARED SPECTROMETRY EPA METHOD 418.1

DATE RECEIVED : JULY 10, 1987
DATE OF ANALYSIS : JULY 10, 1987
PROJECT NUMBER : 88503-01

SAMPLE ID #	CONCENTRATION (mg/kg)
88503-01-1	ND,<1.0
88503-01-2	2.0
88503-01-3	340.0
88503-01-4	331.0
88503-01-5	41.0
88503-01-6	20534.0
88503-01-7	6944.0

Analyst:MJ

Reviewed & Approved: Lisa Newcombe-Dorl
Date: 7/15/87

*NOTE: Samples were received in a chilled state, intact and with Chain-of-Custody attached.

GEOTEST

DATE: 7-10-87 SHEET: ____ OF ____

LABORATORY RESULTS LOG

METHOD: 418.1

JOB NO: ____

JOB NAME: ____

SITE ADDRESS: ____

SAMPLE ID NO.	MATRIX TYPE	MATRIX MASS	SOLVENT MASS	CORRECTION FACTOR	IR READING	CONCENTRATION
1 West ~~WALL~~	Dry Loose SAND	9.6741	37.4683			ND; <1ppm
2 West INSIDE	moist SAND	12.6883	45.6111	3.5948	.001	2ppm
3 South Corner	moist SAND	4.1123 ~~12.3563~~	50.9821 ~~37.3472~~	12.3975	.043	340 ppm
4 Dump #1	moist silt sand	5.1955 ~~12.4449~~	55.0849 ~~49.7783~~	10.6024	.049	331 ppm
5 Dump ~~#2~~	Dry silt sand	11.3547	46.7602	4.1181	.0156	41 ppm
6 Pile #1						20,534 PPM
7 Pile #2						6944 PPM
~~8~~						
DUPLICATE ID NO: 3	moist SAND	SAME	AS Above	12.3975	.043	340ppm
SPIKE ID NO: 2	moist SAND	6.6472	8.4643			

% OF REPRODUCIBILITY 100% STANDARD: ____

% OF RECOVERY: ____ UNIT: (762) 486.1

ANALYST: ____

Sample 1-5 OK Proceed No Farther

GEOTEST
1860 Obispo Avenue, Suite A
Long Beach, California 90804
Telephone: (213) 498-9515

88503

PROJECT NO:
DATE 7/10/87 PAGE 1 OF 1

CHAIN-OF-CUSTODY RECORD

PROJECT NAME Riverside Cement Co.
REFERENCE
ADDRESS 1500 Rubidoux
Riverside CA
SAMPLERS (SIGNATURE) M P Jackson
LABORATORY Geotest

SAMPLE NO.	DATE	TIME	LOCATION	PETROLEUM HYDROCARBONS 8015	PETROLEUM HYDROCARBONS 418.1	BTXE (8020/602)	CAC METALS	HALOGENATED VOLATILE ORGANICS 8010	NUMBER OF CONTAINERS	COMMENTS/ CONTAINER TYPE
1	7/10/87	1305			X				1	Soil; Ball Jar
2		1310			X				1	
3		1315			X				1	
4		1320			X				1	
5		1322			X				1	
6		1405			X				1	
7		1408			X				1	

1 RELINQUISHED BY: M P Jackson — DATE 7/10 — TIME As Above
2 RECEIVED BY: — DATE — TIME
3 RELINQUISHED BY: SIGNATURE — PRINTED NAME — COMPANY — DATE — TIME
4 RECEIVED BY: SIGNATURE — PRINTED NAME — DATE — TIME
5 RELINQUISHED BY: SIGNATURE — PRINTED NAME — COMPANY — DATE — TIME
6 RECEIVED BY (LAB): M P Jackson — PRINTED NAME: Geotest — DATE 7/11 — TIME As Above

7 TOTAL NUMBER OF CONTAINERS

SAMPLE CONDITIONS
RECEIVED ON ICE (YES) / NO
SEALED (YES) / NO

SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS:
ON Site Analysis

G-1424

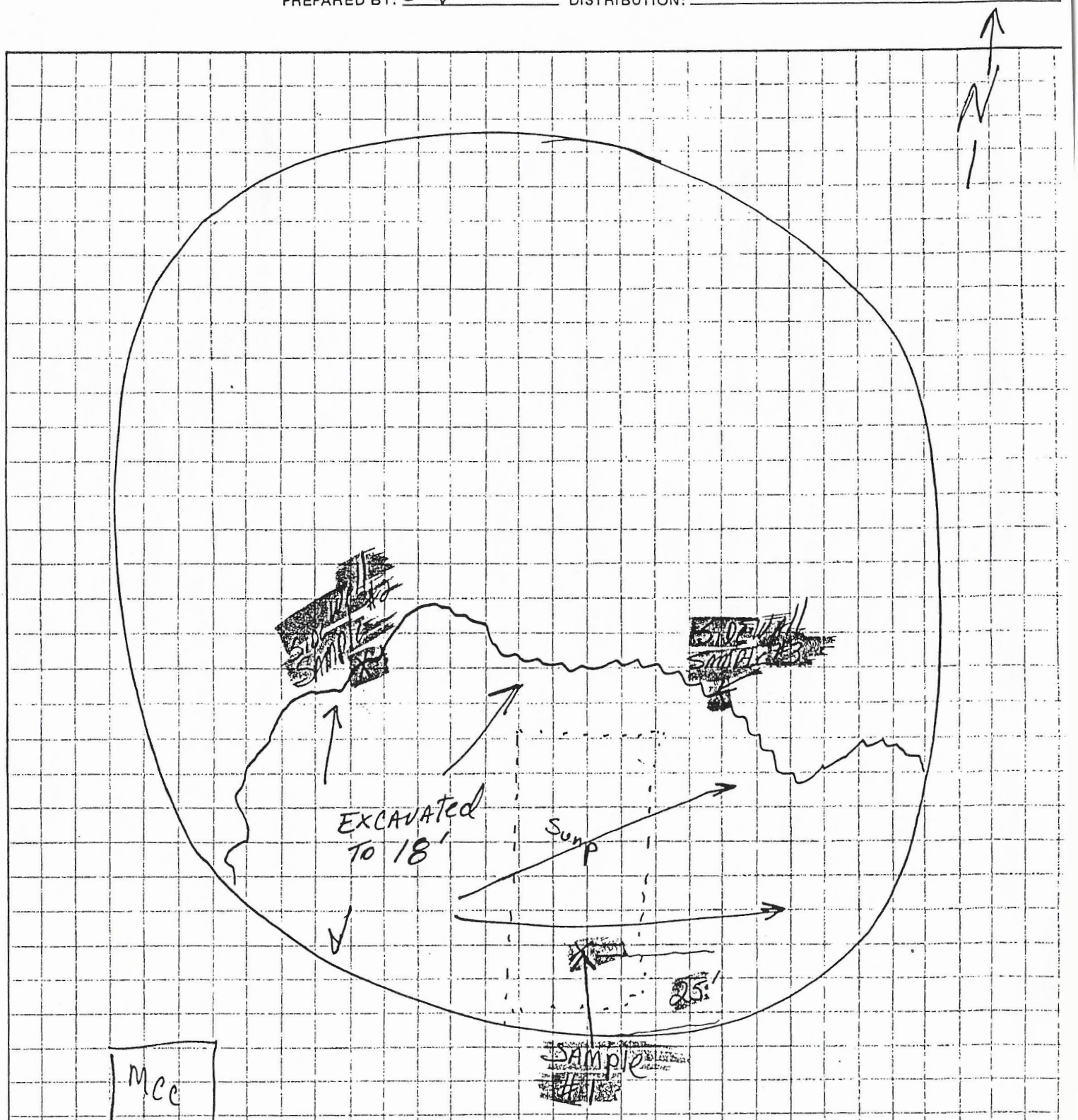
GIFFORD-HILL

IFFORD-HILL CEMENT COMPAN
PROJECT DATA SHEET

PROJECT TITLE: Oil TANK – GeoTest LAB

PLANT: _____ DATE: 7-10-87

PREPARED BY: RH DISTRIBUTION: _____



GEOTEST

An Environmental Monitoring and Testing Service

LABORATORY RESULTS REPORT

PREPARED FOR

RIVERSIDE CEMENT CO.

ANALYSIS OF HYDROCARBON CONTENT BY INFRARED SPECTROMETRY
EPA METHOD 418.1

DATE RECEIVED : AUGUST 20, 1987
DATE OF ANALYSIS : AUGUST 20, 1987
PROJECT NUMBER : 88503-01

SAMPLE ID #	CONCENTRATION (mg/kg)
88503-01-1	791.0
88503-01-2	271.0
88503-01-3	299.0
88503-01-4	568.0
88503-01-5	1171.0
88503-01-6	88.1
88503-01-7	459.0

Analyst: SM

Reviewed & Approved: Lisa Newcomb-Deerl
Date: 8/28/87

*NOTE: Samples were received in a chilled state, intact and with Chain-of-Custody attached.

GEOTEST is a division of GEOSERVICES, a California corporation

GEOTEST

An Environmental Monitoring and Testing Service

LABORATORY RESULTS REPORT

PREPARED FOR

RIVERSIDE CEMENT CO.

ANALYSIS OF HYDROCARBON CONTENT BY INFRARED SPECTROMETRY
EPA METHOD 418.1

DATE RECEIVED : AUGUST 20, 1987
DATE OF ANALYSIS : AUGUST 20, 1987
PROJECT NUMBER : 88503-01

SAMPLE ID #	CONCENTRATION (mg/kg)
88503-01-1	791.0
88503-01-2	271.0
88503-01-3	299.0
88503-01-4	568.0
88503-01-5	1171.0
88503-01-6	88.1
88503-01-7	459.0

Analyst:SM

Reviewed & Approved: Lexi Newcomb-Dierl
Date: 8/28/87

*NOTE: Samples were received in a chilled state, intact and with Chain-of-Custody attached.

Long Beach, California 90804
Telephone: (213) 498-9515

CHAIN-OF-CUSTODY RECORD

DATE 08/20/87 PAGE ___ OF

PROJECT NAME: Riverside Cement Co.
REFERENCE
ADDRESS: 1600 Rubidoux, Riverside
SAMPLERS (SIGNATURE): Richard Ball
LABORATORY

SAMPLE NO.	DATE	TIME	LOCATION	METHODS: PETROLEUM HYDROCARBONS 8015	PETROLEUM HYDROCARBONS 418.1	BTXE (8020/602)	CAC METALS	HALOGENATED VOLATILE ORGANICS 8010	NUMBER OF CONTAINERS	COMMENTS/ CONTAINER TYPE
88503-01-01	08/20/87	1345	SE Corner of Pit		✓				1	
88503-01-02	"	"	SW Corner of Pit		✓				1	44' W of 8' Pipe - 9' N of conduit
88503-01-03	"	"	N Side of Pit		✓				1	10' E of ev - 12' E of Perimeter - 40 N of tower
88503-01-04	"	"	Overburden dumped at N Wall of Pit		✓				1	
88503-01-05	"	"	Overburden from excavation		✓				1	S. of Conduit
88503-01-06	"	"	S. of Conduit - Eg hole		✓				1	
88503-01-07	"	"	S. 8' Pipe		✓				1	

TOTAL NUMBER OF CONTAINERS

1 RELINQUISHED BY	DATE	3 RELINQUISHED BY	DATE	5 RELINQUISHED BY	DATE
SIGNATURE: Richard Ball	8-20-87	SIGNATURE		SIGNATURE	
PRINTED NAME: Richard Ball	TIME: 2:05PM	PRINTED NAME	TIME	PRINTED NAME	TIME
COMPANY: Riverside Cement Co		COMPANY		COMPANY	
2 RECEIVED BY	DATE	**4 RECEIVED BY**	DATE	**6 RECEIVED BY (LAB)**	DATE
SIGNATURE		SIGNATURE		SIGNATURE	08/20/87
PRINTED NAME	TIME	PRINTED NAME	TIME	PRINTED NAME: SAKURA	TIME: 14:30
COMPANY		COMPANY		COMPANY: GEOTEST	

SAMPLE CONDITIONS
RECEIVED ON ICE YES / N
SEALED YES / N

SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS:

1860 Obispo Avenue, Suite A
Long Beach, California 90804
Telephone: (213) 498-9515

CHAIN-OF-CUSTODY RECORD

PROJECT NO: _____
DATE 3/21/17 PAGE ___ C

PROJECT NAME _____
REFERENCE _____
ADDRESS _____
SAMPLERS (SIGNATURE) _____
LABORATORY _____

SAMPLE NO.	DATE	TIME	LOCATION	METHODS: PETROLEUM HYDROCARBONS 8015	PETROLEUM HYDROCARBONS 418.1	BTXE (8020/602)	CAC METALS	HALOGENATED VOLATILE ORGANICS 8010						NUMBER OF CONTAINERS	COMMENTS/ CONTAINER TYPE
					✓									1	
					✓									1	
					✓									1	
					✓									1	
					✓									1	
					-									1	
					✓									1	

1 RELINQUISHED BY	DATE	3 RELINQUISHED BY	DATE	5 RELINQUISHED BY	DATE
SIGNATURE		SIGNATURE		SIGNATURE	
PRINTED NAME	TIME	PRINTED NAME	TIME	PRINTED NAME	TIME
COMPANY		COMPANY		COMPANY	
2 RECEIVED BY	**DATE**	**4 RECEIVED BY**	**DATE**	**6 RECEIVED BY (LAB)**	**DATE**
SIGNATURE		SIGNATURE		SIGNATURE	
PRINTED NAME	TIME	PRINTED NAME	TIME	PRINTED NAME	TIME
COMPANY		COMPANY		COMPANY	

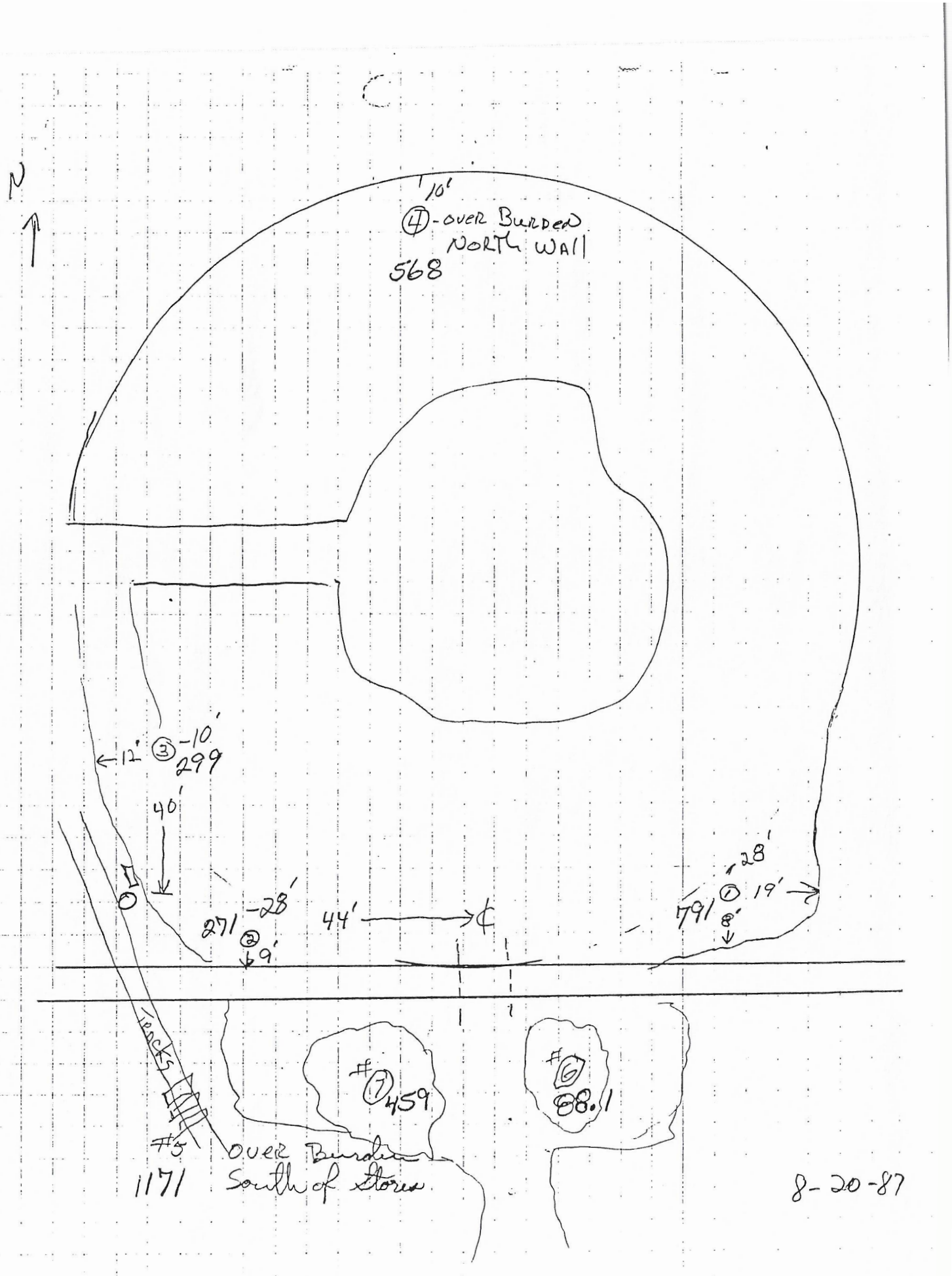
TOTAL NUMBER OF CONTAINER

SAMPLE CONDITIONS

RECEIVED ON ICE YES / I

SEALED YES / I

SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS:


N
10'
④ - over Burden
North Wall
568
12'
③ -10'
299
40'
271
-28'
② 9'
44'
¢
28'
① 19'
791
8'
Tracks
#7
459
#6
88.1
#5
1171
over Burden
South of Stores
8-20-87

GEOTEST

An Environmental Monitoring and Testing Service

LABORATORY RESULTS REPORT

PREPARED FOR

RIVERSIDE CEMENT CO.

ANALYSIS OF HYDROCARBON CONTENT BY INFRARED SPECTROMETRY
EPA METHOD 418.1

DATE RECEIVED : AUGUST 13, 1987
DATE ANALYSIS : AUGUST 13, 1987
PROJECT NUMBER : 88503-01

SAMPLE ID #	CONCENTRATION (mg/kg)
88503-01-1	5.9
88503-01-2	ND,<1.0
88503-01-3	8.3
88503-01-4	354.0
88503-01-5	163.0
88503-01-6	21.4
88503-01-7	46.1
88503-01-8	49071.0

Analyst:SM

Reviewed & Approved: Steve A. Cau
Date: 8/14/87

*NOTE: Samples were received in a chilled state, intact and wit
Chain-of-Custody attached.

Telephone: (213) 498-9515

CHAIN-OF-CUSTODY RECORD

DATE 08/13/87 PAGE 1 (

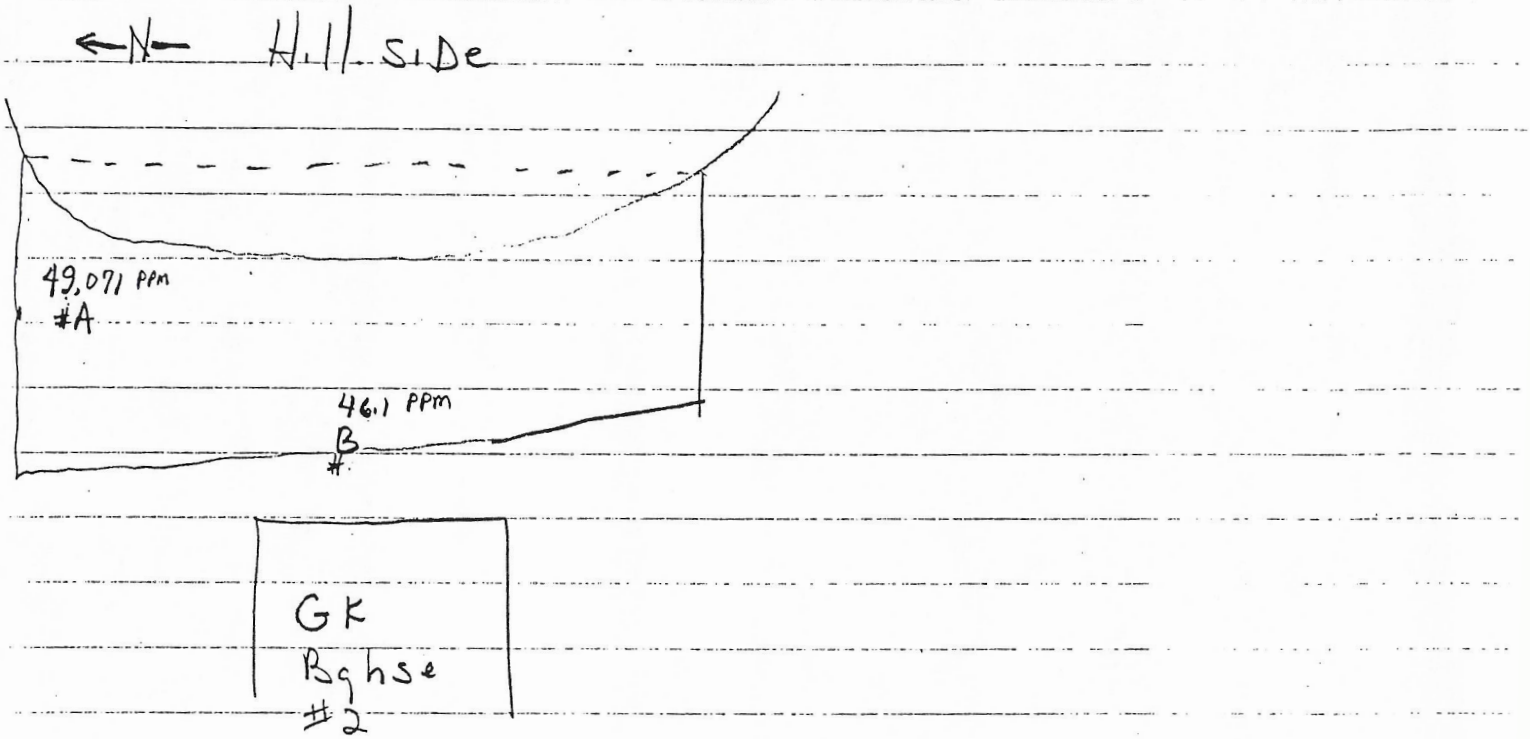
PROJECT NAME Riverside Cement Co.
REFERENCE
ADDRESS 1500 Rubidoux Riverside
SAMPLERS (SIGNATURE)
LABORATORY

SAMPLE NO.	DATE	TIME	LOCATION	PETROLEUM HYDROCARBONS 8015	PETROLEUM HYDROCARBONS 418.1	BTXE (8020/602)	CAC METALS	HALOGENATED VOLATILE ORGANICS 8010						NUMBER OF CONTAINERS	COMMENTS/ CONTAINER TYPE
				METHODS											
88503-01-01	08/13/87	9:00	Bank		✓									1	
88503-01-02	"	9:00	Floor NW		✓									1	
88503-01-03	8/13/87	9:00	Side Wall NW		✓									1	
88503-01-04	"	9:00	S. Access Ramp - Floor		✓									1	
88503-01-05	"		Tank Bottom - NE		✓									1	
88503-01-06	"		Tank Bottom - SE		✓									1	
88503-01-07	"		Bank house A		✓									1	
88503 01-08	"		Bank house B		✓									1	

1 RELINQUISHED BY	DATE	3 RELINQUISHED BY	DATE	5 RELINQUISHED BY	DATE		TOTAL NUMBER OF CONTAINER
SIGNATURE	08/13/87	SIGNATURE		SIGNATURE			
PRINTED NAME	TIME	PRINTED NAME	TIME	PRINTED NAME	TIME	SAMPLE CONDITIONS	
COMPANY	4:30	COMPANY		COMPANY		RECEIVED ON ICE	YES /
						SEALED	YES /
2 RECEIVED BY	DATE	4 RECEIVED BY	DATE	6 RECEIVED BY (LAB)	DATE	SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS:	
SIGNATURE		SIGNATURE		SIGNATURE	08/13/87	On Site Analysis	
PRINTED NAME	TIME	PRINTED NAME	TIME	SAKURA MIZUNO	TIME		
COMPANY		COMPANY		GEOTEST	Same as above		

Stock Pile AT G.K Bghse - A: = #7

- B: = #8



N
60' +-
Elevation
Bottom Grade
(-)28'
#3 Side wall NW
8.3 ppm
(5.9) ppm
#1 (Bank)
#2 (ND)
(Floor NW)
#5
25'
Back Fill
Elevation
Bottom Grade
+20'
Access
RAMP
(354) ppm
#4
Floor
NW
#6
21.4 ppm
40'

DATE: 8-13-87

GEOTEST

An Environmental Monitoring and Testing Service

FIELD LABORATORY RESULTS REPORT

PREPARED FOR

RIVERSIDE CEMENT COMPANY
1500 RUBIDOUX, RIVERSIDE

ANALYSIS OF HYDROCARBON CONTENT BY INFRARED SPECTROMETRY
EPA METHOD 418.1

DATE RECEIVED : JULY 28, 1987
DATE OF ANALYSIS : JULY 28, 1987
PROJECT NUMBER : 88503-01

SAMPLE ID #	CONCENTRATION (mg/kg)
88503-01-1	18.5
88503-01-2	471.
88503-01-3A	4879.
88503-01-3B	495.
88503-01-4	49.5
88503-01-5	59.6
88503-01-6	17093.
88503-01-7	371.
88503-01-8	354.

Analyst: MJ

Reviewed & Approved: Lisa Newcombe-Dierl
Date: 7/30/87

*NOTE: Samples were received in a chilled state, intact and with Chain-of-Custody attached.

GEOTEST is a division of GEOSERVICES, a California corporation

GEOTEST
1860 Obispo Avenue, Suite A
Long Beach, California 90804
Telephone: (213) 498-9515

CHAIN-OF-CUSTODY RECORD

PROJECT NO: 88503-01
DATE 7/28/87 PAGE 1 OF 1

OJECT NAME Riverside Cement Co.
FERENCE
DRESS 1500 Rubidoux
Riverside CA
MPLERS (SIGNATURE) M. Jackson
BORATORY Geotest

SAMPLE NO.	DATE	TIME	LOCATION	METHODS: PETROLEUM HYDROCARBONS 8015	PETROLEUM HYDROCARBONS 418.1	BTXE (8020/602)	CAC METALS	HALOGENATED VOLATILE ORGANICS 8010	NUMBER OF CONTAINERS	COMMENTS/ CONTAINER TYPE
1	7/28/87	0842	East End of 20' excavation		X	X			1	Soil; Quarpak
2		0844	S.E area of 20' Excav.		X	X			1	
3A		0849	South end, 25' depth		X	X			1	
4		0851	West end, 24' depth		X	X			1	
5		0854	North Wall; ≈15'		X	X			1	
6		0831	Behind G.4 Baghouse		X	X			1	
7		0834	under BC-61 Pump II		X	X			1	
8		0839	By Mint Shop		X	X			1	
3B		0958	South End, 25' depth		X	X			1	

1 RELINQUISHED BY: M. Jackson	DATE 7/28/87	3 RELINQUISHED BY	DATE	5 RELINQUISHED BY	DATE	9	TOTAL NUMBER OF CONTAINERS
SIGNATURE: M. Jackson		SIGNATURE		SIGNATURE			
TED NAME: M. Jackson	TIME: As Above	PRINTED NAME	TIME	PRINTED NAME	TIME		SAMPLE CONDITIONS
PANY: Geotest		COMPANY		COMPANY			RECEIVED ON ICE (YES / NO)
							SEALED (YES / NO)
RECEIVED BY	DATE	4 RECEIVED BY	DATE	6 RECEIVED BY (LAB): M. Jackson	DATE 7/28/87		SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS:
ATURE		SIGNATURE		SIGNATURE			
TED NAME	TIME	PRINTED NAME	TIME	PRINTED NAME: M. Jackson	TIME: As Above		
		COMPANY		COMPANY: Geotest			

G-1433

GEOTEST

DATE: 7/27/87 SHEET: 1 OF .

WRONG DATE ↑ 7/28

LABORATORY RESULTS LOG

METHOD: 418.1

JOB NO: 88503-01

JOB NAME: Riverside Cement

SITE ADDRESS: 1500 Rubidoux

SAMPLE ID NO.	MATRIX TYPE	MATRIX MASS	SOLVENT MASS	CORRECTION FACTOR	IR READING	CONCENTRATIC
1	Heavy Silt	7.8469	49.5321	6.3123	.0046	18.5 ppm
2	Loose Silt	9.2511	51.7834	5.5975	.132	471 ppm
3A	Heavy Silt	5.1926	54.2563	10.4488	.732	4879 ppm (4
4	Loose Sand	8.3928	43.3807	5.1688	.015	49.5 pp
5	Loose Sand	14.4675	40.9628	2.8314	.033	59.6 ppm
6	Moist silt	1.7047	54.3762	31.8978	.84	17,093 pp (1
7	Loose silt	11.4707	59.5842	5.1945	.112	371 ppm
8	Loose Silt	6.1437	58.7489	9.5625	.058	354 ppm
3B	Silt & Clay	5.4426	47.9861	8.8168	.088	495 ppm
DUPLICATE ID NO: 6	Same	As	the	above	.83	16,889 ppm C
SPIKE ID NO: S	Loose Sand	5.2130	6.0817	1.1664	.44	327 ppm

% OF REPRODUCIBILITY 98.8%

STANDARD: EPA Reference

% OF RECOVERY: 86%

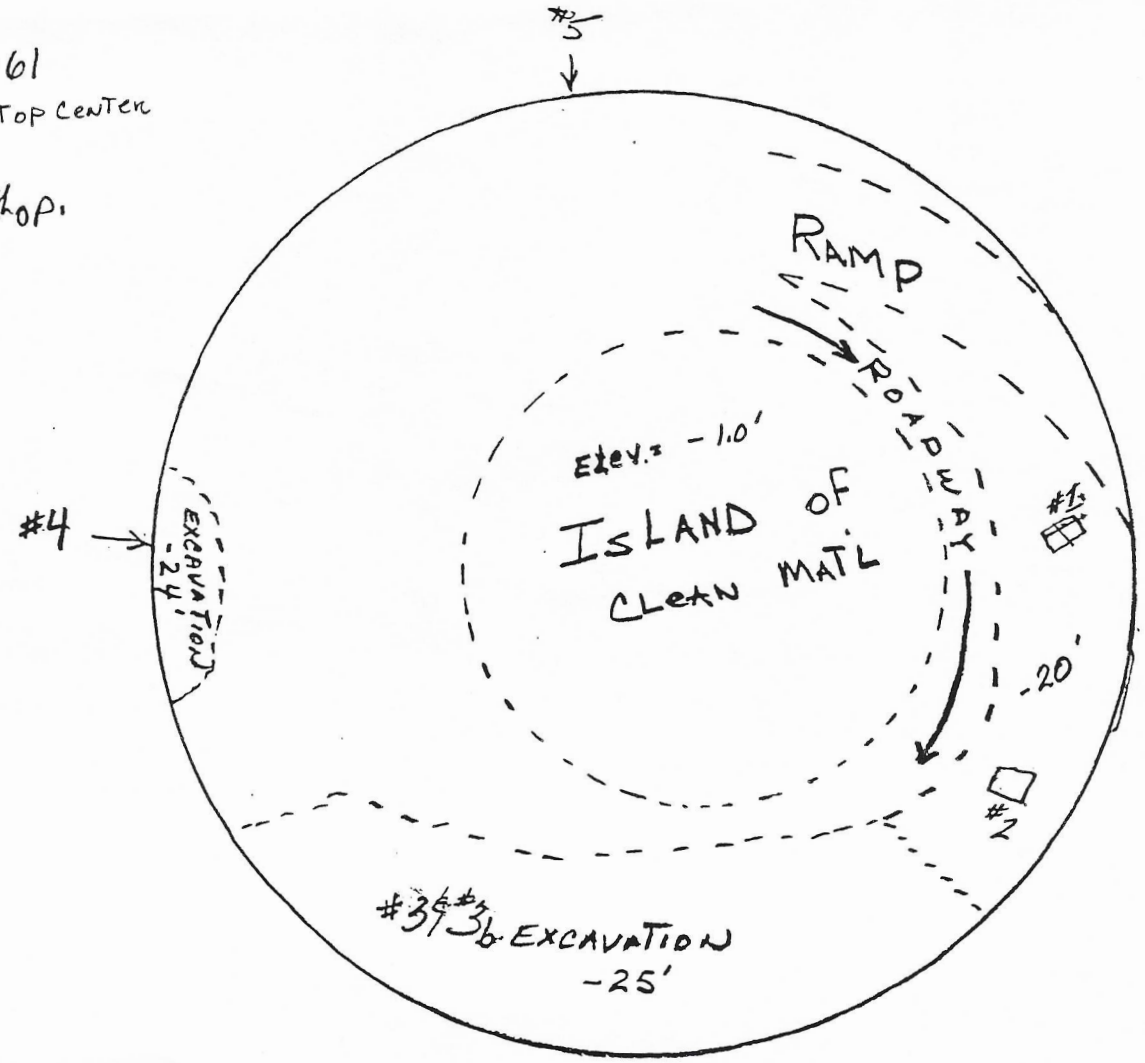
UNIT: (.348) 222 pp

ANALYST: Matt

#6 - Behind G.A. Baghouse on Top Center

#7 - Under BC-61 Dump II Top Center

#8 - By Maint. Shop.



DATE 7-28-

GeoTest

#1	18.5
#2	471
#3	4879
3b	495
#4	49.5
#5	59.6
#6	17,093
#7	371
#8	354

G-1435

ATTACHMENT II

Riverside Cement Company

A GIFFORD-HILL COMPANY

Post Office Box 832
Riverside, California 92502

1500 Rubidoux Boulevard
Telephone: 714/683-3660

To: Gene Kulesza
From: Ray Sisneros
Subject: Oil Tank Dirt

June 29, 1987

	Oil Tank Dirt #1	Oil Tank Dirt #2
SIO2	65.79%	66.70%
AL203	15.20	15.42
FE203	7.26	7.14
CAO	7.26	7.26
MGO	2.80	2.73
NA2O	1.78	2.04
K2O	2.11	2.15
SO3	0.06	0.07
BTU/LBS	493	488
SULFUR	0.27	0.27

ATTACHED PLEASE FIND TWO MIX DESIGN SUMMARIES WHICH INDICATE WE CAN UTILIZE THIS DIRT TO REPLACE 100 TONS OF CLAY PER RAW BAY OF FEED TO THE KILNS. AS INDICATED IN THE ABOVE ANALYSIS THE OIL TANK DIRT IS MOSTLY A SOURCE OF SILICA (65.79%) AND ALUMINA (15.20%). THE OIL TANK DIRT WILL, AS INDICATED IN THE ANALYSIS ABOVE, ALSO PROVIDE A SOURCE OF IRON (7.26%) AND VARIOUS OTHER COMPOUNDS NEEDED TO MAKE CEMENT.

Ray Sisneros
Asst. Chief Chemist

CC: Bruce Rieser
Pat Hill

MATERIAL SAFETY DATA SHEET

Section I

SUPPLIER/MANUFACTURER'S NAME AND ADDRESS

Riverside Cement Company
P.O. Box 832
Riverside, CA 92502

EMERGENCY PHONE NUMBER

(714) 683-3660

CHEMICAL NAME AND SYNONYMS

Clay
Kaolin

TRADE NAME AND SYNONYMS

Clay
"Capo Clay"
"Capo Red"
"Marion White Clay"

CHEMICAL FAMILY

Not Applicable

FORMULA

*	SiO_2	52% - 65%
	Al_2O_3	23% - 29%
	CaO	.7% - 7%
	MgO	.5% - .7%
	Na_2O	.5% - 1%
	K_2O	.1% - .2%
	Cl	<.01%

* Free SiO_2 < 1.0%

Section II - HAZARDOUS INGREDIENTS

Clays are classified as nuisance dusts by MSHA (30 CFR 56.5001; ACGIH TLV'S for 1973 Appendix E), OSHA (29 CFR 1910.1000, Table Z-3 Mineral Dusts) and ACGIH (TLV'S for 1985-86, Appendix D). Clay is not listed by NTP, IARC or OSHA as containing carcinogens.

Section III - PHYSICAL DATA

BOILING POINT

Not applicable, clay is an inert soild.

SPECIFIC GRAVITY

Not applicable

VAPOR PRESSURE

Not applicable

PERCENTAGE VOLATILE BY VOLUME

0%

VAPOR DENSITY

Not applicable

EVAPORATION RATE

Not applicable

SOLUBILITY IN WATER

Slight

APPEARANCE AND ODOR

Reddish or White Earth or Dirt
No Odor

Section IV - FIRE AND EXPLOSION DATA

FLASH POINT

Clay is noncombustible and nonexplosive

FLAMMABLE OR EXPLOSIVE LIMITS

Not applicable

EXTINGUISHING MEDIA

Not Applicable

SPECIAL FIREFIGHTING PROCEDURES

Not Applicable

UNUSUAL FIRE AND EXPLOSIVE HAZARDS

Not applicable

Section V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

Respirable Dust 5 mg/M^3
Total Dust 10 mg/M^3
20 Mppcf

EMERGENCY AND FIRST AID PROCEDURES

Irrigate eyes with water, consult physician if irritation continues. Follow normal personal hygene procdures of washing exposed skin areas with soap and water.

EFFECTS OF OVEREXPOSURE

Acute: Clay (like other forms of common dirt) can dry the skin. It can irritate or scracth the eyes and may irritate the upper respiratory system.

Chronic: Clay may cause inflammation of the upper respiratory tract. Exposure to excessive concentrations may cause pulmonary disease.

Section VI - REACTIVITY DATA

STABILITY
Clay is stable

INCOMPATIBILITY
None

HAZARDOUS DECOMPOSITION PRODUCTS
None

HAZARDOUS POLYMERIZATION
Will not occur

Section VII - SPILL PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS SPILLED
Use vacuum or sweep up spill. Can be wet and scooped up.

WASTE DISPOSAL METHOD
Can be disposed as common waste. Comply with Federal, State and Local Regulations.

Section VII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION
In dusty environments, use NIOSH approved respirator for Pneumoconiosis producing dusts.

VENTILATION
Local exhaust can be used if necessary to control airborne dust levels

EYE PROTECTION
Normally not necessary

SKIN PROTECTION
Normally not necessary

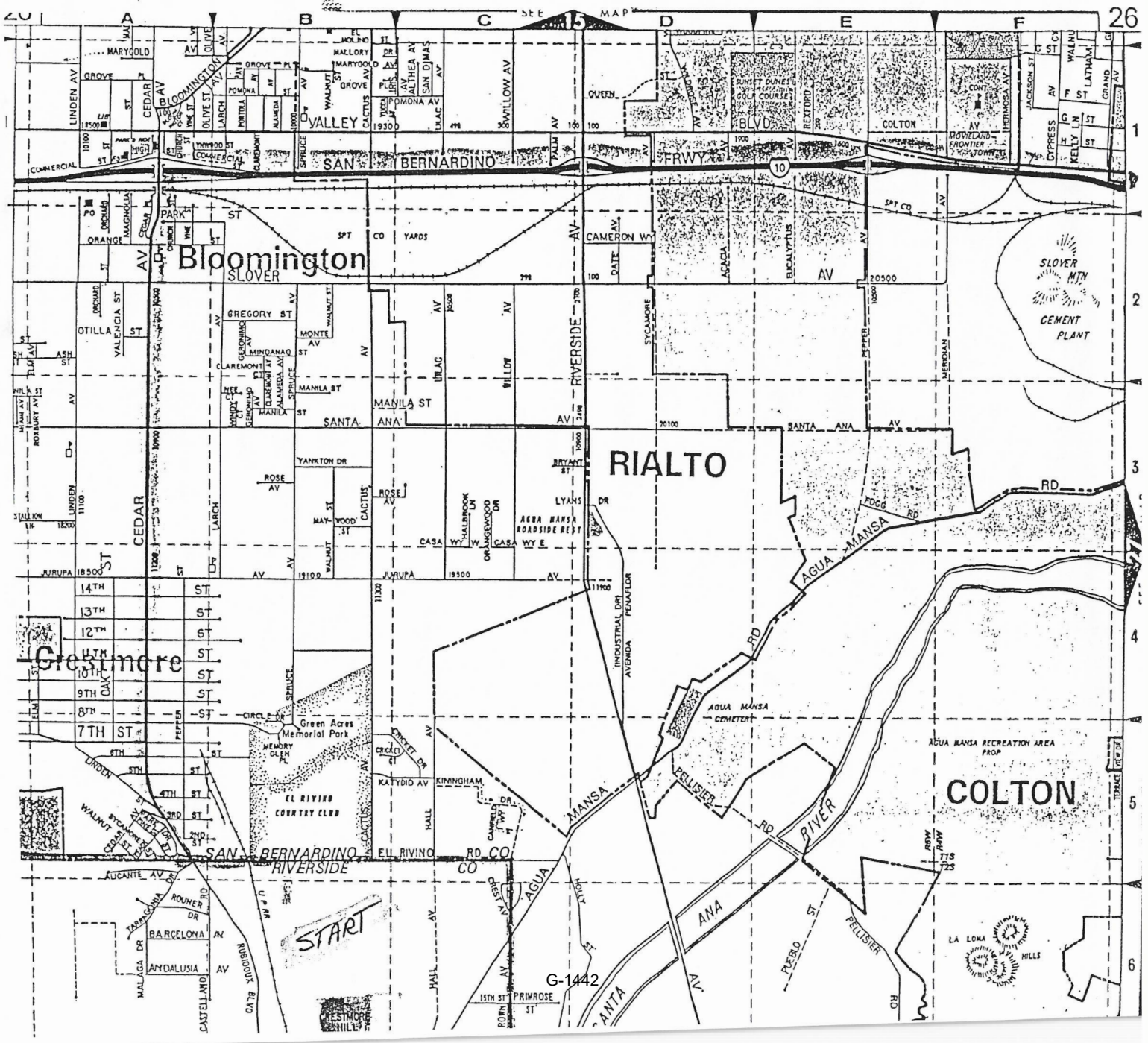
Section IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

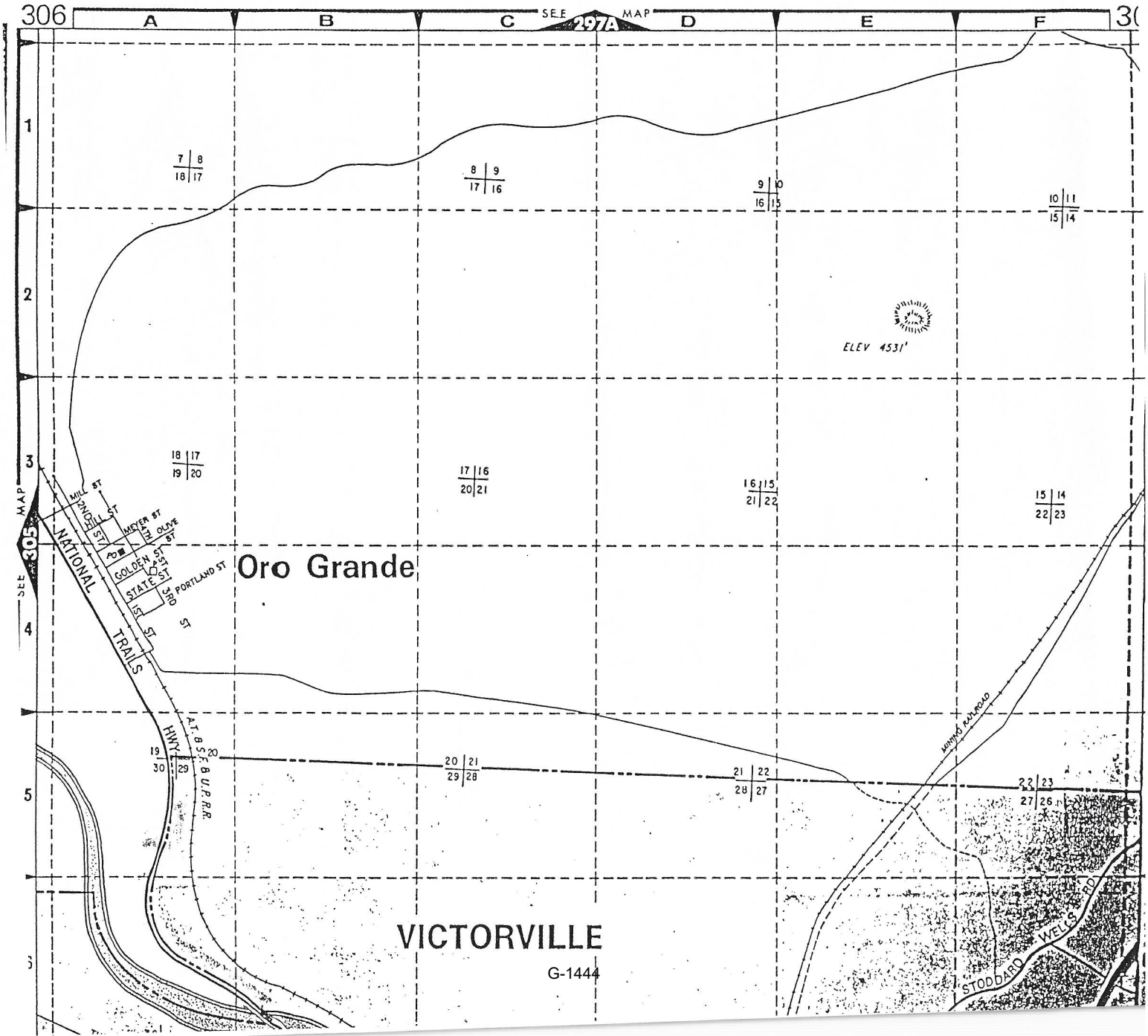
OTHER PRECAUTIONS

ATTACHMENT III

Trucks will exit Crestmore Plant via El Rivino St. (westbound). Turning north on Cedar Avenue, they continue to the 10 Freeway, entering eastbound. At the I-10 and the I-215 intersection, they will exit onto the northbound I-215, continuing onto I-15 northbound as it merges with I-215. They will exit I-15 in Victorville using the "E" Street exit, going west as it becomes National Trails Highway. Continuing on National Trails Highway to the second plant entrance for the Oro Grande Plant, then onto the clay stockpile area. (See attached detail maps).


SEE MAP 15
A
B
C
D
E
F
1
2
3
4
5
6
Bloomington
SLOVER
SAN BERNARDINO FRWY
10
RIALTO
Crestmore
COLTON
VALLEY BLVD
COLTON AV
SANTA ANA AV
RIVERSIDE AV
CEDAR AV
MANILA ST
GREGORY ST
OTILLA ST
YANKTON DR
ROSE AV
CASA WY
JURUPA
14TH ST
13TH ST
12TH ST
11TH ST
10TH ST
9TH ST
8TH ST
7TH ST
6TH ST
5TH ST
4TH ST
3RD ST
2ND ST
AGUA MANSA RD
AGUA MANSA ROADSIDE REST
AGUA MANSA CEMETERY
AGUA MANSA RECREATION AREA PROP
PELLISIER RD
RIVER RD
SLOVER MTN
CEMENT PLANT
Green Acres Memorial Park
EL RIVINO COUNTRY CLUB
EL RIVINO RD
SAN BERNARDINO RIVERSIDE CO
START
BARCELONA AV
ANDALUSIA AV
CASTELLANO
CRESTMORE HILLS
LA LOMA HILLS
PRIMROSE ST
15TH ST
PUEBLO ST
ROUNER DR
TARRAGONA
MALAGA DR
ALUCANTE AV
KATYDID AV
KININGHAM DR
CRICKET ST
CRICKET DR
CAMPBELL TWY
INDUSTRIAL DR
AVENIDA PENAFLOR
LYONS DR
HALLBROOK LN
ORANGEWOOD DR
MAYWOOD ST
MEMORY GLEN PL
CIRCLE DR
TERRACE VIEW DR
MAPLE AV
ROSEMARY AV
MIAMI AV
ELM AV
OAK AV
WALNUT ST
OLIVE ST
LINDEN AV
LARCH AV
PEPPER AV
ACACIA AV
EUCALYPTUS AV
SYCAMORE AV
MERIDIAN
LILAC AV
WILLOW AV
PALM AV
SPRUCE AV
CACTUS AV
HALL AV
ROBINSON BLVD
UPAR
SPT CO YARDS
SPT CO
CAMERON WY
DATE AV
MONTE AV
MINDANAO AV
CLAREMONT ST
MANILA ST
GERONIMO AV
ALAMEDA AV
PORTOLA AV
POMONA AV
ALTHEA AV
SAN DIMAS AV
MARYGOLD AV
MALLORY DR
EL MOLINO ST
MAGNOLIA AV
ORANGE AV
PARK ST
CHURCH ST
VINE ST
COMMERCIAL ST
CLAREMONT AV
VALENCIA ST
STALLION TR
ASH ST
JURUPA AV
SUNSET DUNES COURT
REXFORD AV
HERMOSA AV
CYPRESS AV
KELLY LN
JACKSON ST
LATHAM ST
WALNUT AV
GRAND AV
QUEEN ST
DRIVE-IN
DROVELAND FRONTIER TOWN
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SAN BERNARDINO
COLTON
GRAND TERRACE
LOMA LINDA
REDLANDS
RANCHO AV
MT VERNON
WASHINGTON
BARTON RD
CANYON
WATERMAN
10 FRWY
215
SANTA ANA RIVER
LA CADENA
COMMERCENTER
RECHE CANYON
MONTECITO MEM PARK
RIVERSIDE FRWY


306
A
B
C
SEE MAP 297A
D
E
F
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2
3
4
5
MAP
305
SEE
7 | 8
18 | 17
8 | 9
17 | 16
9 | 10
16 | 15
10 | 11
15 | 14
ELEV 4531'
18 | 17
19 | 20
17 | 16
20 | 21
16 | 15
21 | 22
15 | 14
22 | 23
MILL ST
PINON HILL ST
MEYER ST
OLIVE ST
GOLDEN ST
STATE ST
3RD ST
PORTLAND ST
1ST ST
NATIONAL TRAILS HWY
A.T. & S.F. & U.P.R.R.
Oro Grande
MOJAVE RIVER
19 | 20
30 | 29
20 | 21
29 | 28
21 | 22
28 | 27
23 | 23
27 | 26
VICTORVILLE
STODDARD WELLS RD
G-1444


Clay Storage
Primary Crusher
Haul Road for Clay
Plant Entrance
National Trails Hwy

ATTACHMENT IV


CLAY STORAGE
Primary Crusher
PLANT ENTRANCE

Riverside Cement Company

A Gifford-Hill Company - Member of THE BEAZER GROUP

1500 Rubidoux Boulevard • Riverside, California 92508
(Mailing Address: P.O. Box 832 • Riverside, California 92502)

Phone (714) 683-3660

August 31, 1988

Riverside County
Department of Health Services
Mr. Joseph Asbury
Hazardous Materials Specialist
3636 University Avenue
Riverside, CA 92501

Dear Joe,

In reference to our recent meeting at your office, the purpose of this correspondence is to restate Riverside Cement Company's intentions, regarding the disposition of the excavated soils we have stockpiled at our Crestmore facility.

As we discussed, the opportunity to utilize these materials as a "substitute raw material" during the production process for Portland cement clinker, does still exist at our Oro Grande facility. Although this is a very expensive option, it is environmentally, a better solution than disposing of these materials in a Class 1 landfill.

The option we discussed at this morning's meeting, and agreed to begin as a trial, would involve using the excavated soils to formulate a "Road Mix", which would be used to pave roads at the Crestmore facility. The specific amounts of "Road Mix" to be formulated must still be quantified by the E. L. Yeager Company. As soon as these quantities are ascertained, I will forward them to you.

Our test area is shown in highlight on the attached plot plan. We will begin with a 3" lift of the "Road Mix", being applied to an area measuring approximately 100 ft. x 525 ft. Since many details still need to be worked out regarding the proper mix, we do not know at this time, how much of the excavated soils we will be utilizing on this test plot. Providing we have attained a suitable quality for "Road Mix", and assuming your agency agrees after viewing the site and its result, Riverside Cement Company then intends to utilize the entire quantity of the excavated materials in formulating "Road Mix" to be used throughout the Crestmore Plant facility.

This option is consistent with the suggestion offered by the State of California, Department of Health Services, in mid-year 1987, when they suggested the utilization of these soils as road base for asphalt paving. Investigation at that time resulted in the opinion that this material's density and compactability did not meet minimum standards for sub-base materials. However "Road Mix" paving, by virtue of being a blend of materials, should provide adequate paving for our Plant. It will also assist in reducing potential dust emissions due to truck traffic on unpaved road surfaces.

Sometime in the future we will submit a proposal to you, addressing the disposition of the 30,000 - 40,000 tons of chemically blended raw materials to which we added some of these excavated soils. These raw material piles have been circulated through our sample collection equipment where samples withdrawn at a given volumetric rate, to form composite samples representative of the entire pile. The composite samples were analyzed for T.P.H. (Total Petroleum Hydrocarbons) by an independent, certified testing laboratory. As you recall, the analysis showed an average content of 1500 PPM total T.P.H. using approved EPA testing methods.

I hope this correspondence adequately summarizes the contents of the meeting with your staff, Bruce Rieser, and myself.

If anything further is required, please contact me at (714) 683-3660, ext. 342. If not, I will notify you in a timely manner, prior to the date of the application for the proposed test area.

Sincerely,

Patrick M Hill

Patrick M. Hill
Production/Project Manager

PMH/st

cc: R. Bruce Rieser
Jerry Farr
Bruce Tompkins

Riverside Cement Company
A Gifford-Hill Company - Member of THE BEAZER GROUP
1500 Rubidoux Boulevard • Riverside, California 92508
(Mailing Address: P.O. Box 632 • Riverside, California 92502)
Phone (714) 683-3660

GIFFORD-HILL

January 18, 1989

Mr. Joseph Asbury
Riverside County
Department of Health Services
Hazardous Materials Specialist
3636 University Avenue
Riverside, California 92501

JAN 23 1989
RIVERSIDE CO.
HEALTH DEPT.
Environmental Health

Dear Joe:

Pursuant to our meeting at E. L. Yeager Construction Company, Inc.'s offices on December 2, 1988, I would like to summarize our discussions since some of the points we discussed represent a change from our last correspondence dated August 31, 1988 (attached).

Prior to our meeting we initiated preliminary testing, via an independent laboratory, to determine if the stockpiled raw materials stored at Crestmore could be used as asphalt base or "road mix". A quantity of the materials were mixed 1:1 proportionately with a 5% solution of SC 800; the resulting mixture was compacted and placed inside cylinders to cure. After curing, the mixture was then tested for stability. The results of the stability test show that the materials could be used for either road mix or base.

During our meeting on December 2, 1988, we asked you how your agency would view the stockpiled material after it had been mixed with the SC 800. If it is considered to be stabilized, our plan would be to run the entire stockpile through the proportioning and treatment process and stockpile it at Crestmore. Some of this material will then be used for paving projects within the Plant, while the remainder could be sold to one of the paving companies within our parent company for use as base materials.

In order to assess the extractability of the petroleum product from the finished mixed product, we agreed to have an independent laboratory perform tests under EPA Methods 9070 and 9071. The EPA Method 9071 test is designed to determine the total oil and grease content of the sample material, while the EPA

Method 9070 test is designed to determine the amount of the total oil and grease which is extractable.

The EPA Method 9070 and 9071 tests were performed by Babcock Laboratories and the total oil and laboratory reports containing those test results were previously "faxed" to your office. For your convenience, I have enclosed copies of those laboratory reports with this letter. As indicated in those laboratory reports, the EPA Method 9071 result showed very high concentrations of total oil and grease -- 45,000 mg/kg or 4.5%. The EPA Method 9070 results, on the other hand, indicated that less than 10 mg/l of the total oil and grease was extractable which is equivalent to less than 100 mg/kg of the total oil and grease in the mixture.

Based on our prior conversations and these test results, it appears that the oil and grease in the mixture of stockpiled raw materials and SC 800 is very stable and that, consequently, extraction of total petroleum hydrocarbons ("TPH") will be minimal. Therefore, I would appreciate it if you would confirm in writing that --

A. The mixture of stockpiled raw material and SC 800 can be handled and considered as typical product from a cold process asphalt plant;

B. Riverside Cement Company will not need any additional permits to transport the product mixture nor will it have to comply with any manifesting requirements;

C. The type of information and level of detail which the county will need regarding any uses of the product mixture.

As this process will involve considerable expense to implement, I would like your written response to the above points, as they are all factors in the final equation.

Joe, thank you again for your help through this situation. Your knowledge and assistance have been invaluable.

Best regards,

Pat Hill

Patrick M. Hill
Plant Manager

PMH/st

enc.

November 4, 1992
(updated)

EMERGENCY RESPONSE

BUSINESS PLAN

Riverside Cement Company
Crestmore Plant

1500 Rubidoux Blvd.
Riverside, California 92509

Phone: (714) 683-3660

Business Identification Number: 00320

EMERGENCY CONTACT INFORMATION

Shift Hours:	Name & Title:	Phone:
7:00 a.m. - 4:00 p.m.	-Larry Largent Safety Engineer	(714) 683-3660 X315
	-Patrick M. Hill Plant Manger	(714) 683-3660 X268
	-Mill Foreman on Duty (name varies)	(714) 683-3660 X285
24 Hours	-Mill Foreman on Duty	(714) 683-3660 X285 (714) 683-3694
	-Packhouse Foreman on Duty	(714) 683-3660 X365 (714) 683-1432

Off Duty Phone Numbers:

Name & Title:	Phone:
-Larry Largent, Safety Engineer	Home: (619) 242-8510
-Patrick M. Hill, Plant Manager	Home: (714) 783-8928 Car: (714) 329-0003
-Rick Ball, Production Manager	Home: (714) 799-9531
-Robert Sharp, Packhouse Manager	Home: (714) 924-3329

GENERAL BUSINESS INFORMATION:

Registration Numbers

Business License Number:	954298141
Dunn and Bradstreet Number: (Rated 5A2)	00-792-6496
Standard Industry Code:	324
EPA Generator ID Number:	CAD 063844443
Air Quality Management District ID Number:	ID# 008576
State Radioactive Material License Number:	0543-33
County of Riverside, HAZ/MAT Mgt. Permit:	03470 (1989)
County of Riverside, Health Permit:	00320
State Board of Equalization, Hazardous Waste:	HA HQ 36-008860
BATF ID# for Denatured Alcohol:	75-1673725

GENERAL BUSINESS INFORMATION:

Facility Description

Riverside Cement Company is a manufacturer of Portland cement. The Plant covers over 135 acres of land and employs almost 150 workers. The adjoining land surrounding the Plant consists of agricultural, light industrial and some private residences. The actual physical layout of the Plant can be described in the various areas according to the manufacturing or support functions in that area.

The GREY PLANT is primarially a dry material storage, handling, and milling operation. The dry materials consist of finely ground cement dust, limestone, and gypsum in various mixtures. Of primary concern from a hazardous materials standpoint is the presence of ACINTOL (tall oil, fatty acids) and DIETHYLENE GYLCOL, both of which are stored in aboveground undiked storage tanks. Other hazardous materials in the area would include LUBRICATING GREASES or OILS in 55 gallon drums or in smaller containers.

The WHITE PLANT is similar to the Grey Plant in operation except for the presence of two cement calcining kilns. The kilns can contain temperatures of up to 3000 degrees F, and can use a combination of fuels including DIESEL FUEL, #6 FUEL OIL and NATURAL GAS. The DIESEL FUEL is stored in underground storage tanks. The #6 FUEL OIL is stored in an aboveground diked storage tanks. At the milling operations ACETIC ACID (80% concentration) and DIETHYLENE GYLCOL is used as grinding aids. They are stored in aboveground diked storage tanks. LUBRICATION GREASES and OILS are also used throughout the White Plant.

The SHOPS are located near the Packhouse and at the north end of the Plant. They provide all of the maintenance support for the Plant. In these areas, these substances may be encountered in 55 gallon drums or smaller containers: ACIDS (battery and cleaners) and small amounts of other corrosives, SAFETY SOLVENT and other solvents, various AEROSOL SPRAYS, and compressed gasses including ACETYLENE, OXYGEN, and NITROGEN. UNLEADED GASOLINE is stored underground at the garage.

The PACKHOUSE is a distribution and packing operation for the Plant and does not have any large amounts of hazardous materials. There is a small aboveground DIESEL FUEL storage tank used to fuel the forklifts in the packhouse area.

Throughout the Plant HIGH VOLTAGES may be encountered. They can be found in all Motor Control Centers (MCC's) and can contain voltages of up to 4160 volts. Other areas also contain high voltages, but are generally well marked. Any switchgears or wires encountered should be considered live. NATURAL GAS is piped throughout the Plant in underground lines. Large underground WATER LINES run throughout the Plant. In many of the storage silos sealed RADIATION sources of CESIUM 137 can be found.

Building construction includes poured concrete walls, sheet metal over metal or wood framework, masonry, and wood framed stucco. Some transite panels exist in the Plant.

For further information see specific Emergency Response Procedures.

GENERAL EMERGENCY INFORMATION:
*** IN THE EVENT OF AN EMERGENCY ***

1. If necessary, and if possible, evacuate persons affected or potentially affected by the incident.

2. Announce Emergency Situation:

   a.) Radio to RC 40 or phone extension 280.
   b.) Describe situation to supervisor or foreman
   c.) Foreman contact emergency coordination or emergency response personnel.

FIRE/RESCUE	911
POLICE	911
AMBULANCE	911
HOSPITAL	788-3000
(4445 Magnolia, corner of 14th and Magnolia)	
COMMUNITY INDUSTRIAL CLINIC	781-8828
(4444 Magnolia, across from Community Hospital)	
CONTAINERIZED CHEMICAL	(800)233-3748
LARRY LARGENT	(619)242-8510
PAT HILL	(714)783-8928
RICK BALL	(714)799-9531
ROBERT SHARP	(714)924-3329

3. If possible, abate the emergency with personnel on site.

4. If necessary, Emergency Coordinator will direct the abatement of emergency:

   a.) Determine the nature and scope of emergency
   b.) Contain spill or leak
   c.) Direct response until relieved.
   d.) Contact appropriate agencies or response personnel

5. When emergency is abated:

   a.) Coordinator will notify employees and others affected by emergency that the emergency is over or the status of emergency.

   b.) Clean up operation will commence as necessary.

6. Following emergency:

   a.) Reports will be filled with appropriate agencies.
   b.) An in-plant report will be generated by coordinator.

7. Incident review will take place with Plant personnel and

Chemical Release

In the event of a chemical release or threatened release:

1. If the release is a small one and does not pose a threat to human health or to the environment, clean up the spill yourself or contact a maintenance crew to clean up the spill.

2. If the release is a large one or threatens human health or the environment;

   a.) Contact the mill foreman on duty;
   -Mill foreman may direct clean up or containment or contact the emergency coordinator;

Larry Largent	Extension: 315 Home: (619) 242-8510
Patrick Hill	Extension: 268 Home: (714) 783-8928
Rick Ball	Extension: 342 Home: (714) 799-9531
Robert Sharp	Extension: 365 Home: (714) 924-3329
Disposal Control Services:	(714) 983-0342

   b.) Explain the nature of the chemical spill:
   -Chemical
   -Amount
   -Where the release is taking place.
   -Are there any injured?
   -Does the release threaten environment?
   -Have there been any containment procedures?
   -Agencies contacted?

3. Emergency coordinator may direct containment or direct response agencies to contain release. Clean-up operations will commence at the end of the emergency.

4. Emergency coordinator will notify the appropriate agencies- (See Notification Plan)

5. After the emergency has been abated, an In-plant "Incident Report" will be filed.

6. An emergency response review and assessment will be conducted and response plans will be modified as needed.

Chemical Release

NOTIFICATION PLAN

In an emergency involving a release or threatened release of a hazardous material the appropriate agencies will be notified. When contacting the agencies, provide the following information;

- -Name and telephone number of reporter.
- -Name and address of facility.
- -Time and type of release (Drum leakage, spilled material from truck, etc.)
- -Name and amount of material released and threatened release amounts
- -Extent and number of injuries
- -Actions taking place to mitigate or reduce the emergency
- -Potential hazards to human health or environment
- -Other pertinent information

EMERGENCY	AGENCY	PHONE
RELEASE OR THREATENED RELEASE:	Riverside County Health HAZ/MAT Branch	~~(714) 369-1141~~ 358-5055
	Cal. Office of Emergency Services (CAL OES)	(800) 852-7550
	National Response Center (Notify if directed by COES)	(800) 424-8802
IF RELEASE THREATENS.... Storm drains, creeks, lakes, ponds, rivers, etc.;		
	California Dept. of Fish and Game	(213) 590-5132
	Santa Ana Regional Water Quality	(714) 782-4130
AIRBORNE RELEASE:		
	South Coast Air Quality	(818) 572-6195
UNDERGROUND STORAGE TANK LEAK:		
	Riverside County Health HAZ/MAT Branch	(714) 369-1141

EARTHQUAKE

In the event of a major quake that results in rupture of service lines, or other factors that indicate the shutdown of business for a period of time, the following procedures should be followed:

1.) The Plant Manager will determine if the Plant's operation should be shutdown. This decision will be based on a variety of factors including safety of employees and surrounding communities, protection of equipment and protection of environment.

2.) The Plant Manager may delegate responsibilities, as needed to various plant employees to carry out the safe shutdown of the Plant, in addition to carry out of needed emergency response. In general, the duties will follow this basic pattern:

a.) SHUT OFF UTILITIES:
-Gas Lines (Mike Jordan; Supervisor-Pipe Fitters)
-Water Lines/Pumps (Mike Jordan, or Rick Neumann-Maintenance Manager)
-Electrical (Paul Fogg, Supervisor-Electricians)

b.) SHUT DOWN OF KILNS:
-Shut down of kilns (Rick Ball, Supervisor-Production)

c.) FIRST-AID:
-Robert Sharp, Packhouse Manager

d.) DEBRIS REMOVAL:
-Joe Nava, Supervisor-Labor Gang

e.) RESOURCE EVALUATION:
-Dave Vernon, Supervisor-Storeroom
-Robert Valle, Office Manager

3.) In the event of a quake, all plant personnel will meet in the parking area south of the safety training building. A headcount and announcement of the immediate plans will be made at that time. Injured employees will be brought to this are which will be referred to as the "Staging Area." Any further treatment should be carried out there.

4.) As assessment of action will be made at this staging area. If the magnitude of the quake is such that Plant shutdown is necessary and subsequent evacuation is in order the announcement will be made at that time.

5.) The Plant Manager will assume the role of coordinator or in his absence, the Production Manager or Safety Engineer will assume the role.

6.) If needed, plant equipment can be used for community emergency response. Plant employees may be asked to assist in emergency response.

7.) Also, it should be noted that it may become necessary for employees to remain on plant premises until such time as a evacution is in order. This decision will be made in conjunction with local emergency responders and directors.

busplan

BUSINESS PLAN INFORMATION REPORT

PARTS

A. BUSINESS NAME: RIVERSIDE CEMENT COMPANY - CRESTMORE PLANT

B. LOCATION ADDRESS: 1500 Rubidoux Blvd. Riverside, CA 92509

C. MAILING ADDRESS: P.O. Box 832, Riverside, CA 92502

D. PHONE NUMBER: (714) 683-3660

E. OWNER/OPERATOR: Gifford-Hill Cement Company, A Member of the Beazer Group

F. TYPE OF BUSINESS: Portland Cement Manufacturer

G. SIC CODE: 32

H. "This business has less than the maximum allowable amount of hazardous materials stored on site. I understand that to comply with this agency's instructions of this business plan requirement is a violation of state law, California and Safety Code, Chapter 6.95, Section 25514."

Signature: _____ **Print Name:** _____ **Date:** _____

I. EMERGENCY CONTACT PERSON(S):

	NAME AND TITLE	24 HOUR PHONE NUMBE BUSINESS	NON
PRIMARY:	TERRY L. TYSON - SAFETY ENGINEER	(714) 683-3660	(714)
ALTERNATE:	PAT HILL - PRODUCTION SUPERVISOR	(714) 683-3660	(714)

HAZARDOUS MATERIALS INVENTORY REPORT

PARTS

A. BUSINESS NAME: Riverside Cement Company - Crestmore

B. LOCATION ADDRESS: [illegible]

J. HAZARDOUS MATERIALS INVENTORY REPORTING SECTION:

ITEMS 1. NO.	2. COMMON NAME	3. CHEMICAL COMPONENT	4. PRIMARY HAZARD	5. HANDLING PROCEDURES	6. MAXIMUM STORED QUANTITY	
11.	Used Motor oils Spent Solvents	Waste Oils 90% Misc. Solvents- 10% (Paint Thinner & 1,1,1, Trichlor.)	Toxic and low flammability	Equipment Maint. and Cleaning operations	100 gallons	Abc hol
12.	Cesium 137	Cesium 137 Radioactive isotope	Radioactivity	Used in nuclear scales and instruments (measuring bulk materials)	10 - 200 millicuries 4- 250 MC 2 - 35 MC 1 -750 MC 1 - 1500 MC	Sea

SHOULD YOU REQUIRE ADDITIONAL REPORTING FORMS, COPY THIS PAGE AND COMPLETE

HAZARDOUS MATERIALS INVENTORY REPORT

PARTS

A. BUSINESS NAME: Riverside Cement Company - Crestmore Plant

B. LOCATION ADDRESS: [illegible]

J. HAZARDOUS MATERIALS INVENTORY REPORTING SECTION:

ITEMS	1. NO.	2. COMMON NAME	3. CHEMICAL COMPONENT	4. PRIMARY HAZARD	5. HANDLING PROCEDURES	6. MAXIMUM STORED QUANTITY	
	1.	Diesel Fuel	Diesel Fuel	Flammable	Used as a motor fuel for mobile equipment	24,000 Gallons	Und Sto
	2.	Unleaded Gasoline	Gasoline	Flammablity	Used as a motor fuel for mobile equipment	10,000 gallons	Und Sto
	3.	# 6 Fuel Oil	Petroleum Hydro-carbons	Flammability	Used as a kiln Fuel	80,000 gallons	Abo st
	4.	Acetic Acid 80%	Acetic Acid	Corrosive	Used as a milling aid	1,000 gallons	Ab st ar pl
	5.	Diethylene Glycol	Diethylene Glycol	Low Toxicity	Used as a milling aid	5,000 gallons	Ab st

SHOULD YOU REQUIRE ADDITIONAL REPORTING FORMS, COPY THIS PAGE AND COMPLETE A

HAZARDOUS MATERIALS INVENTORY REPORT

PARTS

A. BUSINESS NAME: Riverside Cement Company - Crestmore Plant

B. LOCATION ADDRESS: _____

J. HAZARDOUS MATERIALS INVENTORY REPORTING SECTION:

ITEMS	1. NO.	2. COMMON NAME	3. CHEMICAL COMPONENT	4. PRIMARY HAZARD	5. HANDLING PROCEDURES	6. MAXIMUM STORED QUANTITY	
	6.	Motor Oil	Petroleum Hydro-carbons	Flammability	Used as a lubricant in mobile equipment and misc. machines	1,000 gallons	55
	7.	Misc. Greases	Petroleum Hydro-carbons	Flammability	Used as a lubricant in mobile euipment and misc. machines	1,000 gallons	55
	8.	Acetylene	Acetylene	Flammability	Used in gas cutting and welding operations	30 large cylinders aprox. 250 cubic feet per cylinder	Met
	9.	Acid Soap- "All Brite"	Phosphoric Acid 30%	Corrosive	Used as a cleaner and de-scaler	150 gallons	55 and buc
	10.	Safety Solvent	1,1,1, Trichlor-ethane	Toxicity and low flammabil-ity	Used as a parts cleaner	150 Gallons	25- drur

SHOULD YOU REQUIRE ADDITIONAL REPORTING FORMS, COPY THIS PAGE AND COMPLETE A

COUNTY OF RIVERSIDE - DEPARTMENT OF HEALTH
3575 13th STREET MALL (POST OFFICE BOX 1370) · RIVERSIDE, CA. 92502
Edward J. Gallagher, M.D., M.P.H.
Director of Health

November 4, 1987

Riverside Cement
1500 Rubidoux Blvd.
Riverside, CA 92509

RE: Soil Sample Results From Under The 6,000,000 Gallon Oil Tank

This letter is in response to your request for a confirmation that the last soil sampling results taken from below your 6,000,000 gallon underground storage tank show no significant contamination and will require no further site mitigation.

With the provision that the results obtained from the soil sampling were accurate and properly taken, it is the position of this Department that no further action will be needed at this location.

It should also be pointed out that the contaminated soil removed from below the tank still needs to be disposed of in accordance with your previous plans that are on file with this office.

This letter does not relieve you or your company from any responsibilities mandated under the California Health & Safety Code if additional or previously unidentified contamination is discovered at this same location.

If you have any questions regarding this correspondence, please contact me at (714) 369-1141.

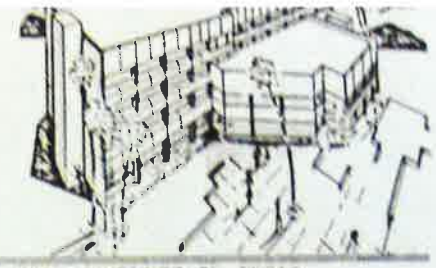
Sincerely,

Joseph L. Asbury
Hazardous Materials Specialist

JLA:rja

RIVERSIDE
DEPARTMENT
of HEALTH

3575 14TH STREET MALL (POST OFFICE BOX 1570) · RIVERSIDE, CA. 92502



[illegible], M.D., M.P.H.
DIRECTOR OF HEALTH

[illegible], R.N., M.B.A.
ASSIST. DIRECTOR OF HEALTH
PERSONAL HEALTH SERVICES

[illegible], R.S., M.P.A.
ASSIST. DIRECTOR OF HEALTH
ENVIRONMENTAL HEALTH SERVICES

[illegible], D.V.M., M.P.H.
ASSIST. DIRECTOR OF HEALTH
SPECIAL SERVICES

[illegible], M.S.
ASSIST. DIRECTOR OF HEALTH
ADMINISTRATION & SUPPORT SERVICES

HEALTH CENTERS

BANNING
3055 RAMSEY STREET
BANNING, CA 92220

BLYTHE
263 NORTH BROADWAY
BLYTHE, CA 92225

CASA BLANCA
3240 MARGUERITA
RIVERSIDE, CA 92504

CORONA
505 SOUTH BUENA VISTA
CORONA, CA 91720

HEMET
880 NORTH STATE ST.
HEMET, CA 92343

INDIO
46-209 OASIS STREET
INDIO, CA 92201

LAKE ELSINORE
30195 FRASER DR.
LAKE ELSINORE, CA. 92330

PALM SPRINGS
3255 TAHQUITZ-McCALLUM
PALM SPRINGS, CA 92262

PERRIS
237 NORTH "D" STREET
PERRIS, CA 92370

RIVERSIDE
1520 LINDEN STREET
RIVERSIDE, CA. 92507

RUBIDOUX
5888 MISSION BLVD.
RIVERSIDE, CA 92509

Reply to:

February 10, 1989

Patrick M. Hill
P.O. Box 832
Riverside, CA 92502

RE: Contaminated Soil at Riverside Cement Company, 1500 Rubidoux Blvd., Riverside

Dear Pat:

This correspondence is in response to your request for written confirmation. The stock piles of soil that are contaminated with Bunker 6 heating fuel located at the Crestmore Plant in Riverside can be used as raw materials for a typical product for cold mix asphalt.

After the stock piles are used for cold mix asphalt, the County of Riverside will not require any further permits for transporting the product to appropriate use sites. However, the County will require the approximate location and quantity of materials upon final destination.

If you have any questions regarding this letter, please contact me at (714) 369-1141.

Best Regards,

Joseph Asbury
Hazardous Materials
Management Specialist

JA:jmw

COUNTY OF RIVERSIDE
DEPARTMENT OF HEALTH

4065 COUNTY CIRCLE DR. RIVERSIDE, CA. 92503
(Mailing Address-P.O. Box 7600 Riverside, CA. 92513-7600)
FAX (714) 358-4529

Phone!
RECEIVED
NOV 12 1991
PLANT
MANAGERS OFFICE

November 5, 1991

MR PATRICK HILL
RIVERSIDE CEMENT
PO BOX 832
RIVERSIDE CA 92502

site 89210

Dear Mr. Hill:

Subect: Riverside Cement, 1500 Rubidoux Blvd., Riverside

This letter confirms the completion of site investigation and remedial action for the underground storage tanks at the above site. With the provision that the information provided to this agency was accurate and representative of existing conditions, it is the position of this office that no further action is required at this time.

Please be advised that this letter does not relieve you of any liability under the California Health and Safety Code or Water Code for past, present, or future operations at the site. Nor does it relieve you of the responsibility to clean up existing, additional or previously unidentified conditions at the site, which cause or threaten to cause pollution or nuisance or otherwise pose a threat to water quality or public health.

Additionally, be advised that changes in the present or proposed use of the site may require further site characterization and mitigation activity. It is the property owner's responsibility to notify this agency of any changes in report content, future contamination findings, or site usage.

If you have any questions regarding this matter, contact this office at (714) 358-5055.

Sincerely

Sharon Boltinghouse

Sharon Boltinghouse
Hazardous Materials Specialist

SB:cjm

cc: SWRCB
RWQCB

COUNTY OF RIVERSIDE
DEPARTMENT OF HEALTH

Phone:

4065 COUNTY CIRCLE DR. RIVERSIDE, CA. 92503
(Mailing Address-P.O. Box 7600 Riverside, CA. 92513-7600)
FAX (714) 358-4529

Riverside Cement Company
1500 Rubidoux Blvd.
P.O. Box 832
Riverside, CA 92502
Attn: Mr. Pat Hill, Plant Manager

Jan 16, 1992

Dear Mr. Hill:

This correspondence is in response to a request from Riverside Cement regarding the permitting status of one (1) six million gallon (Bunker C-# 6 fuel oil) tank that was removed during the summer of 1987.

The tank in question was a concrete above ground storage tank with more than 10% of the tank below grade, thus regulated by the County of Riverside, Department of Health as an underground storage tank. The contamination below the tank impacted in excess of 50,000 cubic yards of soil (Reference Project # 87-127).

Prior to the removal of the six million gallon tank the County of Riverside did not issue operating permits. Further, due to the size of the tank no monitoring alternative or precision testing options were available. Therefore, the only permits that were issued were the permits for removal of the six million gallon tank.

If you have any further question please contact me or Sandra Bunchek at (714) 358-5055.

Sincerely,

Michael R. Shetler

Michael R. Shetler, M.A., R.E.H.S., R.E.A.
Supervising Hazardous Materials Management Specialist
Area II

Report # 6400

County of Riverside

DEPARTMENT OF ENVIRONMENTAL HEALTH

www.rivcoeh.org

COMPLAINT REPORT

COPY

Received: 8/20/93 Assigned To: Workman **Complaint #: CO0008147**

PE: 5520 - Facility Incident

COMPLAINT INFORMATION

Area: H01 **District:** H002

Property Name: Riverside Cement Company

Property Address: 1500-A Rubidoux Blvd Section 1

Cross Street: **Phone:** (951) 683-3660

City: Jurupa Valley **Zip Code:** 92509

DBA: Riverside Cement Company

Owner: Riverside Cement Company

Phone: (951) 683-3660

COMPLAINT DETAILS

Complaint received thru **Status: 02-Closed** **Complaint Received by:** Bryant

Control No.: 8293
ERCI No.: 93-776

Nature of ERCI: Oil spill.
Comments: Approximately 600 gallons of #6 heating oil spilled from UST system (URR submitted 08/20/1993).
Disposition: Entered into Local Oversight Program (LOP)

COMPLAINANT INFORMATION

Name: **Address:**

Home Phone:

Work Phone: **E-mail:**

Complainant contacted _____

COUNTY OF RIVERSIDE HEALTH SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS MANAGEMENT BRANCH

SUPPLEMENTAL REPORT

No. mB

Page 1 of 1 pages

Reference Date _____

Name Riverside Cement Hill

Address 1500 Rubidoux City Rubidoux

Topic #93-776

REMARKS:

9-6-94: Reinspection conducted at above property. Reinspection focused on soil contamination resulting from a piping leak of Bunker oil #6. See workplan submitted on 1-6-94. Entire site of ~~excavation~~ contamination was excavated. Dennis Smith stated that their consultants were currently preparing a new work-plan to address the possible contamination below the boiler room. (see photos.) Current plan will conduct a maximum of three (3) boring. Analysis shall be EPA 418.1 All work shall be approved by this office prior to commencing.

Inspector _____

G-1471

Received by _____

DISTRIBUTION: ORIGINAL–Specialist; COPY–Supervisor

COUNTY OF RIVERSIDE • HEALTH SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH

December 12, 1994

Mr. Patrick Hill
Riverside Cement Company
1500 Rubidoux Blvd.
Riverside, CA 92502

RE: Site Assessment Workplan for the White Kilns Pipeline

Dear Mr. Hill:

The Riverside County Department of Environmental Health, Hazardous Materials Management Division has received and reviewed the Workplan for Site Assessment for the White Kilns Pipeline. The workplan will be acceptable provided the following requirements are met:

- **Analytical testing** - Three (3) of the highest contaminated boring samples, as determined by the field geologist, based on visual observations and an ultraviolet photoionization detector shall be analyzed according to an EPA fuel screen, EPA method 8020 and 418.1. The remaining samples shall be analyzed according to the best suited analytical method. As discussed on Friday, December 9, 1994 remediation may not be a practicable or a economical option. If the contamination will be left in place, a Toxicity Characteristic Leaching Procedure (TCLP) shall be conducted on the three (3) samples that exhibit the highest levels of contamination. The TCLP shall be conducted using water as the solvent.

- **Vertical and Horizontal Borings** - It is acceptable that the actual number of soil samples selected for laboratory analysis will be based on field observations. However, two (2) consecutive clean samples (10 ft.) will be required to confirm the extent of the contamination in each boring

As you requested, I have scheduled January 10, 1995 to oversee the implementation of the site assessment and sampling. If you have any questions regarding this matter, you may contact me at (909) 358-5055.

Sincerely,

Daniel T. Workman

Daniel T. Workman, R.E.H.S.
Hazardous Materials Management Specialist

John M. Fanning, Director
4065 County Circle Drive • Riverside, CA 92503 • Phone (909) 358-5316 • FAX (909) 358-5017
P.O. Box 7600 • Riverside, CA 92513-7600

COUNTY OF RIVERSIDE • HEALTH SERVICES AGENCY

DEPARTMENT OF ENVIRONMENTAL HEALTH

November 28, 1995

Mr. Edmond G. Suher
Ryan-Murphy, Inc.
211 Granite Street, Suite E
Corona, CA 91719

RE: Site Assessment Report for Riverside Cement Company dated July 7, 1995

Dear Mr. Suher:

This correspondence is regarding our telephone conservation on November 21, 1995. This office and the Regional Water Quality Control Board has received and reviewed the above referenced work plan for the Riverside Cement Company.

For the work plan to be approved, the proposed remediation plan shall be revised to include the following:

- The disposal method of the 450 cubic yards of contaminated soil (33,000 - 37,000 mg/kg TPH) that will be excavated.
- All generated materials must be properly disposed within ninety (90) days from the date of generation.
- All materials generated as a result of field activities at this site must be labeled, secured and containerized or completely covered, lined and bermed to prevent further discharge to the environment.
- A 4-inch well be installed at the midpoint between the original point of release and boring #7. The well shall be drilled to the point of auger refusal. Please submit a well completion diagram, indicating seal, screen etc. The well shall be monitored for TPH twice the first month and then once a month for an additional two months. The report for the three month monitoring period shall be submitted to my attention on/before March 31, 1996.

Please schedule with myself a minimum of five working days prior to anticipated commencement of all field activities. Feel free to contact me at (909) 358-5055 if you have any questions regarding this matter.

Sincerely,

Daniel T. Workman

Daniel T. Workman, R.E.H.S.
Hazardous Materials Management Specialist

COUNTY OF RIVERSIDE • HEALTH SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH

May 6, 1996

Mr. Patrick M. Hill
Riverside Cement Company
1500 Rubidoux Blvd.
P.O. Box 832
Riverside, CA 92502

RE: Closure of the White Kilns Pipeline Remediation Project

Dear Mr. Hill:

This Department is in receipt of the report prepared by Ryan-Murphy Inc., dated March 21, 1996. The referenced report detailed the well installation and described the monitoring procedures at the site of the diesel release. The report indicated that the well was checked for the presence of free product on four (4) separate occasions over a three month period (January 96- March 96).

With the provision that the results obtained from the soil sampling, well installations and monitoring were accurate and properly implemented, it is the position of this Department that no further action will be required at this location.

It should be pointed out that this letter does not relieve you of any responsibilities mandated under the California Health and Safety Code if additional or previously unidentified contamination is discovered at this same location.

If you have any questions regarding this matter, please feel free to call me at (909) 358-5055.

Sincerely,

Daniel T. Workman

Daniel T. Workman, REHS
Hazardous Materials Management Specialist

John M. Gosling, Director

COUNTY OF RIVERSIDE • HEALTH SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH

September 3, 1997

Mr. Dennis Smith
Riverside Cement Company
1500 Rubidoux Blvd.
Riverside, CA 92519

Dear Mr. Smith:

RE: Removal of four underground storage tanks (USTs) at 1500 Rubidoux Blvd., Riverside

This Department is in receipt of the closure report prepared by *Decon Environmental Services Inc.*, regarding the removal of two 12,000 gallon diesel tanks, the 10,000 gallon gasoline tank and the 250 gallon kerosene tank. The diesel and gasoline tanks were removed on June 23, 1997 under permit #97-144. The kerosene tank was removed on July 21, 1997 under permit #97-169. It has been determined that no significant contamination exists (reference APCL analytical report, lab I.D. # 801-972947, dated 06/25/97).

With the provision that the results obtained from the soil sampling were accurate and properly handled, it is the position of this Department that no further action will be required at this location.

It should be pointed out that this letter does not relieve you of any responsibilities mandated under the California Health and Safety Code if additional or previously unidentified contamination is discovered at this same location.

If you have any questions regarding this matter, please feel free to telephone me at (909) 358-5055.

Sincerely,

Daniel T. Workman

Daniel T. Workman, REHS
Hazardous Materials Specialist

cc: JD Knecht
DECON Environmental Services Inc.

John M. Fanning, Director
4065 County Circle Drive • Riverside, CA 92503 • Phone (909) 358-5316 • FAX (909) 358-5017
(Mailing Address: P.O. Box 7600 • Riverside, CA 92513-7600)

Department of Environmental Health
Hazardous Materials Management Division
Underground Storage Tank Closure Report

Name: Mercine Cement Co
Address: 1500 Rubidoux BLVD.
Contact Person: Dennis / J.D. Phone
Inspector: J.D. Phone: 888-791-0092
HMMS Personnel: P. WORKMAN

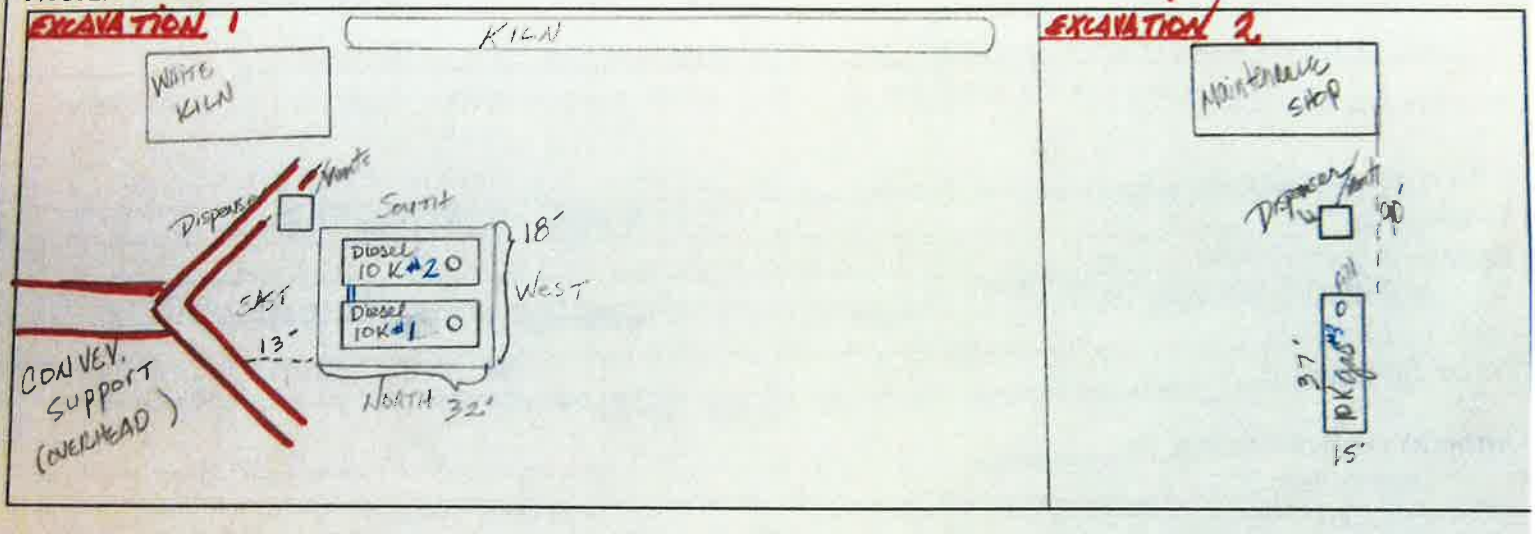
Date: June 23, 1997
Plan Check #: 97-144
Facility #: B1502
# of Tanks Closed: 03
# of Tanks Remaining: None

REMOVAL

Tank #	Size	Contents	Appearance (Integrity)
1	10K	Diesel	Normal Rusting/Pitting
2	10K	Diesel	Normal Rusting/Pitting
3	10K	gasoline	Normal Rusting/Pitting

UST(s) Rinsed: Yes - Erickson, Inc.
Rinsate Manifest #: 96525194
Destination of Rinsate: Demenno Kerdoon - Los Angeles
Hazardous Waste Hauler: Erickson, Inc
UST(s) Inerted: Yes - 300 pounds total
Destination of UST(s): Erickson, Inc.
Certificate of Destruction Requested: Yes

FACILITY MAP



SAMPLING INFORMATION

Tank #	Sample #	Depth	Description	Analysis
1	EX1-14-West	14'		EPA 5M Diesel 8020
1	EX1:18 West	18'		EPA 5M Diesel 8020
1	EX1: 16 East	16'		EPA 5M Diesel 8020
2	EX1: W2-14	14'		EPA 5M Diesel 8020
2	EX1: W2-17	17'		EPA 5M Diesel 8020
2	EX 1:E2-16	16'		8020 EPA 5M Diesel
3	EX2: 14	14'		EPA 5M GAS 8020/MTBE/7421
3	EX2: 13.5 W	13.5'		EPA 5M GAS 8020/MTBE/7421
3	EX2 17 W	17'		EPA 5M GAS 8020/MTBE/7421

Depth to UST bottom: 12'
Depth to groundwater: UNKNOWN
Samples sealed and chilled: Yes
Chain of Custody: Yes
CA Certified Lab: Yes
Status of excavated materials: STOCKPILED
URR Issued: NO
Referred to LOP:

ADDITIONAL COMMENTS: Bottom of Both excavations were 12'. Diesel tanks were manifolded at the East end, fills on East or West end. Gasoline tank fill on West end. Tanks are estimated to be fifty (50) years old.

PIPING & DISPENSER SAMPLES

Tank #	Sample # (Pipe/Dispenser)	Depth	Description	Analysis
1 & 2	ex.1 - west Dispenser	45'		BTEX & Total 8020
3	ex.2 - gas dispenser	39'		BTEX & TPH/8015MOD

ADDITIONAL COMMENTS: ...and piping removed.

No visual signs of soil contamination noted in either excavations.

TEMPORARY CLOSURE

Tank contents removed _____

Manifest # _____

Hazardous Waste Hauler _____

Witnessed sticking of empty UST(s) _____

Lock on fill cap(s) _____

Power disconnected _____

ADDITIONAL COMMENTS: _____

COUNTY OF RIVERSIDE HEALTH SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS MANAGEMENT DIVISION

UNDERGROUND STORAGE TANK PERMIT FOR CLOSURE

#81502

4

TYPE OF PERMIT

- [X] Removal
- [ ] Abandonment in Place
- [ ] Temporary Closure (12 Months Only)

This permit shall not be construed as to allow the violation of any law, nor does it prevent further corrections of errors found on the application, plans, or at the site. Plans must be resubmitted for approval if any additional changes are made by the applicant.

In addition to this permit, all applicable permits required by the local fire department, building department, and the air quality management district must be obtained and should be available for review at the closure site.

All tank closures must, at a minimum, comply with the California Underground Storage Tank Regulations and the appropriate section of the California Health & Safety Code.

DECON ENVIRONMENTAL (Owner/Contractor/Applicant) has applied for and is granted a permit to

REMOVE (Remove/Abandon/Temp. Close) 3 (No.) underground storage tank(s) at

RIVERSIDE CEMENT CO (Facility Name) located at

1500 RUBIDOUX BLVD. (Street Address) in RIVERSIDE (City/Town), California.

Underground tank closure inspections must be scheduled five (5) business days in advance. Telephone (714) 358-5055.

Permit Approved By | 06/17/97 (Date) | 97-144 (Plan Check #)

ENTERED 6/19/97

*This Permit for Closure is VALID FOR 90 DAYS from the date of approval. If no reasonable action is taken within that period, the applicant will be required to reapply for a closure permit with all pertinent fees associated.

#3590 (6/4/97 $40

ENTERED JUN 18 1997 per

cash (6/17/97 $40

G-1479

COUNTY OF RIVERSIDE HEALTH SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH

#81502

Underground Storage Tank Closure/Abandonment Application

Application for closure or abandonment of Underground Storage Tanks. Applicant may submit a copy of the removal plans. All fees are NON REFUNDABLE and payable when the plans are submitted with this application.

97 144
PLAN CHECK NUMBER

NAME OF FACILITY	ADDRESS OF FACILITY	(CITY)	PHONE NUMBER
Riverside cement Co.	1500 Rubidoux Blvd	Riverside	
NAME OF OWNER	**ADDRESS OF OWNER**		**PHONE NUMBER**
Riverside Cement 24-2 2ga Jeo Dong Jung gu	Seoul 100748 Korea		
NAME OF OPERATOR	**ADDRESS OF OPERATOR**		**PHONE NUMBER**
Riverside Cement CO	1500 Rubidoux	Riverside Ca.	
NAME OF CONTRACTOR/CONTACT PERSON	**ADDRESS OF CONTRACTOR**		**PHONE NUMBER**
Dedra Environmental	23490 connecticut st	Hayward Ca 94545	510 732-6444
CONTRACTORS LICENSE TYPE AND NUMBER (Including Hazardous Materials Certification)			
A-Haz 545726 EXP 11/30/98			

ANSWER THE FOLLOWING QUESTIONS DESCRIBING THE TANKS TO BE CLOSED OR ABANDONED. IF YOU HAVE MORE THAN FOUR (4) TANKS, PROVIDE INFORMATION ON ADDITIONAL APPLICATION FORM.

	TANK 1	TANK 2	TANK 3	TANK 4
SINGLE/DOUBLE WALL TANK	Single	Single	Single	
TANK IN USE (YES/NO)	yes	yes	yes	
IS TANK SUSPECTED OF LEAKING (YES/NO)	no	no	no	
AGE OF TANK (YEARS)	50 yrs.	50 yrs	50 yrs	
CONSTRUCTION MATERIAL OF TANK(S)	steel	steel	steel	
HAZARDOUS SUBSTANCE STORAGE HISTORY	gas	Diesel	Diesel	

Check the method of closure to be performed

REMOVAL (X Doug Thompson

ABANDONMENT ( )

TEMPORARY CLOSURE ( )

DATES FOR WHICH THE TANKS ARE TO BE TEMPORARILY CLOSED (IF APPLICABLE).

NAME OF PERSON TO CONTACT IN AN EMERGENCY	24 HOUR EMERGENCY PHONE NUMBER
James Knecht	909 337 5637

APPLICANT NAME	APPLICANT SIGNATURE	DATE OF APPLICATION
James Knecht		6/4/97

PLEASE MAKE YOUR CHECK PAYABLE TO THE COUNTY OF RIVERSIDE

AMOUNT ATTACHED $ 463 .00

TRANSACTION/OCR NO. _____

DOH-HEH-008 (Rev 8/94)



RIVERSIDE CEMENT 1/23/97
1500 Rubidoux
Diesel tanks



RIVERSIDE CEMENT CO.
1500 Rubidoux BLVD. (Diesel)
Location of tanks 1/23/97



Riverside Cement Co.
1500 Rubidoux #8502 1/23/97
Diesel tanks



RIVERSIDE CEMENT CO.
1500 Rubidoux # 8502 1/23/97
10K GASOLINE.

County of Riverside Health Services Agency
Department of Environmental Health
Hazardous Materials Management Division
Underground Storage Tank Closure Report

Facility Name: Riverside Cement Company
Facility Address: 1500 Rubidoux Blvd.
Facility Contact Person: Mike Jordan Phone: (909) 683-3660
Contractor: Decon Environmental Phone: (310) 732-6444
HMMS Personnel: Workman

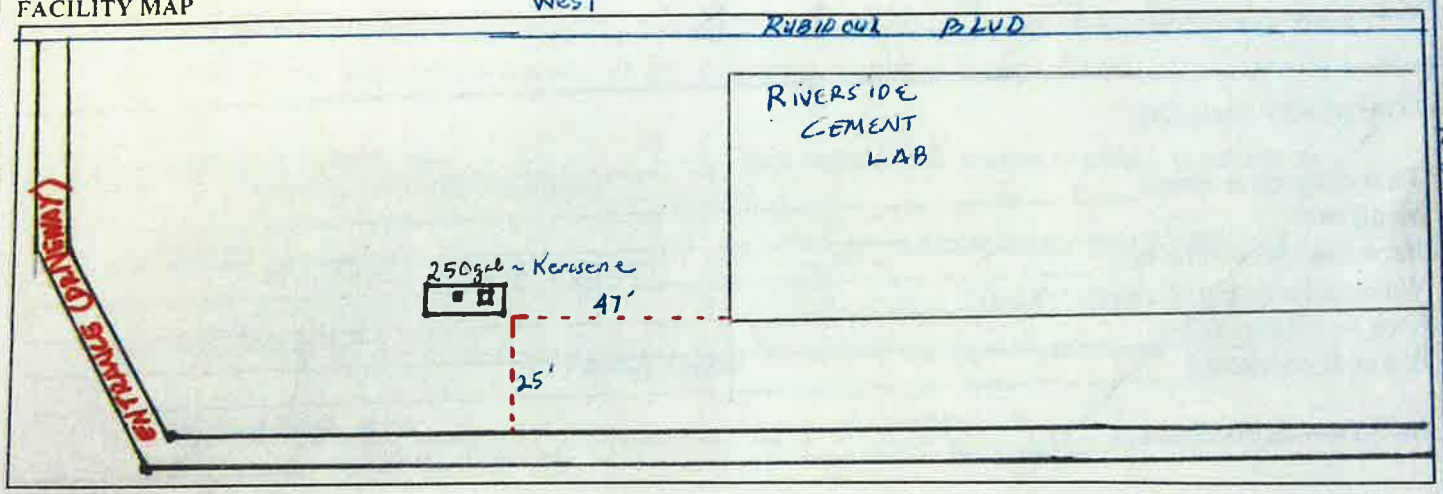
Date: July 21, 1997
Plan Check #: 97-169
Facility #: 81502
# of Tanks Closed: 1
# of Tanks Remaining: 0

REMOVAL

Tank #	Size	Contents	Appearance (Integrity)
1	250gal	Kerosene	galvanized - very good condition

UST(s) Rinsed: No
~~Tank~~ Rinsate Manifest #: 9661988
Destination of ~~Tank~~ Rinsate: ERICKSON, INC
Hazardous Waste Hauler: ERICKSON
UST(s) Inerted: Yes - 20 lbs Dry Ice
Destination of UST(s): ERICKSON
Certificate of Destruction Requested: YES

FACILITY MAP



SAMPLING INFORMATION

Tank #	Sample #	Depth	Description	Analysis
K1	K1-6	6'	clay	418.1 8020
K1	K1-7	7'	clay	418.1 8020

Depth to UST bottom: 4.2'
Depth to groundwater: 100 +
Samples sealed and chilled: yes
Chain of Custody: yes
CA Certified Lab: yes
Status of excavated materials: Back-filled
URR Issued: No
Referred to LOP:

ADDITIONAL COMMENTS: LEL prior to drilling was 0% LEL. Meter calibrated to Hexane 4-16-97. No odors of hydrocarbons detected.

8/4/97

PIPING & DISPENSER SAMPLES

Tank #	Sample # (Pipe/Dispenser)	Depth	Description	Analysis

ADDITIONAL COMMENTS: VST ... have a horizontal piping run. Piping consisted of a 3' vertical pipe connected to a hand suction pump. Vent pipe was located directly over VST @ middle.

TEMPORARY CLOSURE

Tank contents removed
Manifest #
Hazardous Waste Hauler
Witnessed sticking of empty UST(s)
Lock on fill cap(s)
Power disconnected

ADDITIONAL COMMENTS:

VST was hauled as "HAZARDOUS" to Erickson, Inc.

(12/05/96)

COUNTY OF RIVERSIDE HEALTH SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIAL MANAGEMENT DIVISION

UNDERGROUND STORAGE TANK
PERMIT FOR CLOSURE

#1602

TYPE OF PERMIT

- [X] Removal
- [ ] Abandonment in Place
- [ ] Temporary Closure (12 Months Only)

This permit shall not be construed so to allow the violation of any law, nor does it prevent further corrections of errors found on the application, plans, or at the site. Plans must be resubmitted for approval if any additional changes are made by the applicant.

In addition to this permit, all applicable permits required by the local fire department, building department, and the air quality management district must be obtained and should be available for review at the closure site.

All tank closures must, at a minimum, comply with the California Underground Storage Tank Regulations and the appropriate section of the California Health & Safety Code.

RIVERSIDE CEMENT CO. has applied for and is granted a permit to
Owner/Corporation/Applicant

REMOVE 1 underground storage tank(s) at
Remove/Abandon/Temp. Close No.

RIVERSIDE CEMENT CO. located at
Facility Name

1500 RUBIDOUX BLVD. in RIVERSIDE, California
Street Address City/Town

Underground tank closure inspections **must be scheduled five (5) business days in advance.** Telephone (714) 358-5055.

Permit Approved By — 07-14-87 Date — 87-169 Plan Check #

*This Permit for Closure is VALID FOR 90 DAYS from the date of approval. If no reasonable action is taken within that period, the applicant will be required to reapply for a closure permit with all pertinent fees associated.

#34084 (7/87)
$ 300.00
Cash
7/14/87

ENTERED JUL 16 1987

COUNTY OF RIVERSIDE HEALTH SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH

Underground Storage Tank Closure/Abandonment Application

81502 (4)

Application for closure or abandonment of Underground Storage Tanks. Applicant may submit a copy of the removal plans. All fees are NON REFUNDABLE and payable when the plans are submitted with this application.

97-169
PLAN CHECK NUMBER

NAME OF FACILITY	ADDRESS OF FACILITY	(CITY)	PHONE NUMBER
Riverside Cement Co.	1500 Rubidoux Blvd.	Riverside	
NAME OF OWNER	ADDRESS OF OWNER		PHONE NUMBER
Riverside Cement Co.	24-2 Jeong Ja Dong Jung gu Seoul Korea 100748		
NAME OF OPERATOR	ADDRESS OF OPERATOR		PHONE NUMBER
Riverside Cement Co.	1500 Rubidoux Blvd.	Riverside	
NAME OF CONTRACTOR/CONTACT PERSON	ADDRESS OF CONTRACTOR		PHONE NUMBER
Dean Environmental Services	23490 Connecticut	Hayward	510 732-6444 94545
CONTRACTORS LICENSE TYPE AND NUMBER (Including Hazardous Materials Certification)			
A-Haz 545726 EXP 11/30/98			

ANSWER THE FOLLOWING QUESTIONS DESCRIBING THE TANKS TO BE CLOSED OR ABANDONED. IF YOU HAVE MORE THAN FOUR (4) TANKS, PROVIDE INFORMATION ON ADDITIONAL APPLICATION FORM.

	TANK 1	TANK 2	TANK 3	TANK 4
SINGLE/DOUBLE WALL TANK	Single			
TANK IN USE (YES/NO)	NO			
IS TANK SUSPECTED OF LEAKING (YES/NO)	NO			
AGE OF TANK (YEARS)	unknown			
CONSTRUCTION MATERIAL OF TANK(S)	Steel or concrete			
HAZARDOUS SUBSTANCE STORAGE HISTORY	Kerosene			

Check the method of closure to be performed:

REMOVAL (X)

ABANDONMENT ( )

TEMPORARY CLOSURE ( )

DATES FOR WHICH THE TANKS ARE TO BE TEMPORARILY CLOSED (IF APPLICABLE).

NAME OF PERSON TO CONTACT IN AN EMERGENCY	24 HOUR EMERGENCY PHONE NUMBER
J.D. Knecht	909 337-0739

APPLICANT NAME	APPLICANT SIGNATURE	DATE OF APPLICATION
J.D. Knecht		9/14/97

PLEASE MAKE YOUR CHECK PAYABLE TO THE COUNTY OF RIVERSIDE

AMOUNT ATTACHED $ 309 .00

TRANSACTION/OCR NO. 9737



COUNTY OF RIVERSIDE, HAZARDOUS MATERIALS

DATE: 7-21-97 SPECIALIST: WORKMAN

FPC#: #97-169 TIME: 0930 hrs.

DISCRIPTION: 250 g. KEROSENE UST

COULD YOU

IF YOU DO

1500-A Rubidoux #1

COUNTY OF RIVERSIDE • HEALTH SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH

FA0015430

July 01, 1999

Riverside Cement - Maintenance
Facility No. 81502 ✓
1490 Rubidoux Blv.
Riverside, California 92509.

Dear Sirs;

RE: Underground Storage Tanks removed at Riverside Cement - Maintenance, 1490 Rubidoux Blv., Riverside, California, 92509, Ca..

This department is in receipt of results from soil sampling done below your fuel tank on May 25, 1999. It has been determined that no significant contamination exists under the UST and that no further site mitigation will be required (reference Associated Laboratories, Inc. Analytical Results Report, Lab Request #37710, 806 North Batavia, Orange, California, Ca., 92868 , lab analyses dated May 26, 1999).

With the provision that the results obtained from soil sampling were accurate and properly handled, it is the position of this department that no further action will be required under the UST at this location.

Be advised that this letter does not relieve you of any responsibilities mandated under the California Health & Safety Code if additional or previously unidentified contamination is discovered at this same location.

If you have any questions regarding this matter, please feel free to contact me at (909) 358-5055.

Sincerely,

Roy Bryant

Roy Bryant, Hazardous Materials Management Specialist III
Department of Environmental Health
Hazardous Materials Management Division

RDB:rdb

SITE ASSESSMENT REPORT

Submitted to:

County of Riverside
Health Services Agency
Department of Environmental Health
4065 County Circle Drive
Riverside, California 92513

Submitted on behalf of:

Riverside Cement Company
1500 Rubidoux Boulevard
Riverside, California 92509
Contact: Mr. Dennis Smith

Prepared & Reviewed by:

for Dennis Miller SC
Dennis Miller, P.E.
Professional Engineer
CE # 28108

Reviewed by:

E J. Suher
Ed Suher
Project Manager

Ryan-Murphy Incorporated
Environmental Construction Management Division
211 Granite Street, Suite E
Corona, California 91719

July 7, 1995

RIVERSIDE CEMENT COMPANY
CRESTMORE FACILITY
RIVERSIDE, CALIFORNIA

WHITE KILNS PIPELINE SITE ASSESSMENT

In August, 1993 a pipeline leak was discovered at the Crestmore facility. The leak occurred in an underground pipeline connecting an above ground No. 6 diesel fuel tank to supply pumps for the White Kilns. On January 30 and 31, 1995, soil borings were advanced and soil samples retrieved for hydrocarbon analysis. This report describes the work performed and summarizes the results.

BACKGROUND

In November, 1995, a workplan for the site assessment work was submitted to the Riverside County Department of Environmental Health, Hazardous Materials Management Division for review and approval. The workplan described the site history, background of fuel transfer activities, initial excavation work on the white kiln pipeline, and site assessment approach.

Workplan Summary and County Acceptance

Two areas of the white kilns were to be covered by the site assessment: 1) soils beneath and adjacent to the former routing of the No. 6 fuel oil pipeline; and 2) soils beneath a former diesel pumping station. Eight vertical borings would be drilled in the assessment area. Borings would be advanced to 30 feet below ground surface (BGS) or refusal. Additionally, two horizontal boreholes were proposed for assessing soils beneath the boiler building. Soil samples would be analyzed by using EPA method 418.1 (Total Recoverable Petroleum Hydrocarbons - TRPH).

The County's acceptance letter (Attachment A) approved the workplan with two provisions:

1. Soil samples are to be analyzed using the most suitable analytical method. In addition, the three borehole samples with the highest hydrocarbon concentrations are to be further analyzed according to EPA fuel screen, EPA method 8020, and 418.1. If soils are to be left in-place, a Toxicity Characteristic Leaching Procedure (TCLP) is to be performed on the samples that exhibit the highest levels of hydrocarbons. The TCLP will use water as the solvent.

2. The number of samples per borehole will be based on field observations. However, two consecutive clean samples (10 ft.) will be required to confirm the extent of the hydrocarbons in each borehole.

On-site Geology and Assumed Groundwater Depth

The soils at the site are reported to be identified by the USDA Soil Conservation Service as the Greenfield type. The soils are characterized as sandy loams found on the west and southwest side of the quarry. The soils are brown sandy loam derived from granitic materials. The soils are well-drained and typical of alluvial deposits. Beneath these deposits, granitic rock predominates the area. It is anticipated that the granitic formation will be encountered during borehole drilling at about 30 feet below ground surface (BGS).

Crestmore Lake located southeast of the white kilns is approximately 80 feet below the white kiln's ground surface. It is therefore assumed that groundwater beneath the site is approximately 80 feet BGS.

ASSESSMENT PROCEDURES

With few exceptions, the work plan, as amended by Riverside County, was followed explicitly. The only exception to the workplan was the addition of one additional soil boring, B-9. Boring B-9 was included within the work to define the horizontal and vertical extent of hydrocarbons identified in boring B-1. Figure 2 identifies the location of the nine soil borings. The location of each boring is as follows:

Borings 1, 2, and 3:	drilled within the excavation and along the pipeline;
Boring 9:	drilled on the northern edge of the excavation along the pipeline route to determine horizontal and vertical impact of hydrocarbons in soil;
Borings 4, 5, and 6:	drilled on the south-southwest side of the valve pit to determine if hydrocarbons have migrated both vertically and horizontally from the pipeline as it entered the underground, concrete valve pit; and
Borings 7 and 8:	drilled to the east/southeast of the boiler building to determine if diesel fuel from past pumping activities has migrated into the underlying soils.

The soil boring, sampling and chemical analysis work was performed on January 30 and 31, 1995. Ryan Murphy Inc. mobilized a drill rig to the site on January 30, 1995, and began advancing borings in the area of each of the eight planned locations identified in the workplan. For each boring, soil samples were retrieved at five foot incremental depths, reviewed by an on-site geologist, classified using the Unified Soil Classification System (USCS), and reported on soil boring logs. The logs, located in Attachment B, identify depth of sample, USCS lithology, blow counts, PID/FID concentration

recordings, and a description of the soil sample. Each boring log also identifies the final depth of the boring. In several of the borings, drill refusal was encountered due to bedrock conditions.

Soil samples were covered, capped, taped, labeled, and stored on ice within an ice chest. Chain-of-custody's were prepared and accompanied the samples to the laboratory.

As drilling proceeded on January 31, 1995, Centrum Analytical Laboratories mobilized an on-site laboratory to Riverside Cement. Soil samples, retrieved the previous day, were delivered to the on-site lab for immediate analysis of TRPH and/or diesel. Samples selected for analysis were determined by field observations, PID readings, or depth of sample. Since one of Riverside County's criteria was to have at least "two consecutive clean samples" to confirm the extent of hydrocarbons in each borehole, at least two to three soil samples were selected from each boring. Analytical results reported on January 31, 1995, assisted in determining the need for an additional boring (B-9) to assess the impact of hydrocarbons detected in boring B-1 (See Figure 2).

Additionally, in accordance with the County's acceptance letter, three soil samples exhibiting the highest hydrocarbon concentrations (borings B1-10, B2-25, and B7-45) were selected and forwarded to Centrum's off-site laboratory for fuel screen analysis. This suite of hydrocarbon evaluations includes analysis for Total Extractable Hydrocarbons (TEPH) and BTEX.

Based on in-field evaluations and preliminary data reported by the on-site laboratory, it appeared that the soils in boring B-7 (located adjacent to the diesel pumping station) would remain in place. Thus, in accordance with the County's letter, a soil sample (B7-45) was submitted to the off-site laboratory for TCLP analysis.

At the completion of the drilling work, each borehole was grouted with hydrated bentonite chips.

RESULTS

Reported hydrocarbon concentrations are summarized in Table 1. Laboratory data sheets and chain-of-custody forms are included in Attachment C. Four borings (three vertical: B1, B2, and B7;, and one horizontal HB-2) were reported with detectable concentrations of hydrocarbons.

Lithology

The boring logs support the generalized geologic site description. The soils within the white kilns study area can very generally be described as follows:

starting at ground surface to five feet BGS - fill; 5 feet to 20 feet BGS - clays to silty clays to silty sands; 20 feet to 40 feet sand, medium to fine, grading to zones of decomposed granite. All soil samples were described as brown (various shades of color) to reddish brown. Decomposed granite was described as white to brown to black, some with black mica flakes. Auger refusal was encountered in four borings (B-3 @ 35 feet, B-5 @ 40 feet, B-6 @ 45 feet; and B-7 @ 45 feet.

Decomposed granite, grading into a formation causing refusal to a hollow stem drill rig, occurs generally between 40 to 45 feet below grade. This is a very generalized description, as the site is not level and drilling depths recorded in the boring logs are described as beginning at ground surface. Analysis of the bedrock formation is provided in Attachment D. The analysis indicate the material is primarily calcium carbonate (i.e. quartz diorite, granite).

Boiler Building

Two horizontal borings were hand-augured underneath the boiler building at a depth of approximately 6 to 7 feet BGS. Boring HB-2 met refusal 8 feet into the side wall of the excavation. The reason for the refusal is unknown. A TRPH of 19 mg/kg was reported at the five foot horizontal retrieval zone. This concentration is not significant and could have resulted from the clays located under the building. Horizontal boring HB-1 was reported with no detectable concentrations of recoverable hydrocarbons at 5 to 10 feet horizontally underneath the boiler building.

As indicated in the following descriptions, the hydrocarbons reported in borings B1 and B2 are related to the release from the No. 6 fuel oil pipeline. Boring B7 is located adjacent to the diesel pumping station and reflects the diesel release from this area of the site.

Pipeline Impact

Borings B-1, -2, -3, -4 and -9 bound the area of the pipeline. From the results summarized in Table 1, the highest concentrations of hydrocarbons are in boring B-1 at 10 feet below ground surface (30,000 mg/kg TRPH and 37,000 mg/kg TEPH, with detectable concentrations of BTEX). A TCLP analysis requested on the soil sample at B-1 at 10 feet was reported at 14 mg/l. Low concentrations of TRPH are reported in boring B-1 at 30 feet (6 mg/kg) and B-2 at 25 feet (34 mg/kg). No detectable concentrations of TRPH were reported in borings B-3, B-4, and B-9.

The detectable concentrations of TRPH in borings B-1 and B-2 were two of the three highest reported hydrocarbons during the assessment work. In accordance with the County's approval letter, a fuel screen was performed on these two samples. As indicated in Table 1, the high concentration of TRPH in B1-10 was confirmed with the fuel screen (extractable hydrocarbons

(TEPH) and BTEX). However, the relatively low TRPH concentration reported in B2-25 (34 mg/kg) was reported with non-detectable concentrations of fuel screen compounds. The indication is that the hydrocarbons reported in B2-25 are of a heavier, longer-chain compound. The naturally occurring fats and oils in clays and silts can be reported by this testing method (418.1). Thus the concentration of 34 mg/kg is not considered as impacting the site. This conclusion is supported by two non-detectable concentrations of TRPH at depths of five (B2-30) and 10 feet (B2-35) below B2-25.

Based on the analysis summarized in Table 1, the impact of the hydrocarbons reported in boring B1-10 appears to be localized within the pipeline zone. This boring is bounded by two borings (B-3 and B-9) with no reported hydrocarbon concentrations. At deeper depths within boring B-1, the hydrocarbon concentrations trend to non-detectable concentrations. Additionally, when the new replacement pipeline was installed north of the leaking pipeline (see Figure 2), the depth of the pipeline trench was approximately 12 to 14 feet below ground surface. During the construction process there were no reports of stained or odorous soils.

Corrective action for the pipeline soils can be excavation. Soil excavation should start with trenches on either side and paralleling the former pipeline orientation. Boring B-1 location is the benchmark for defining the initial hydrocarbon release area. Because diesel fuel No. 6 tends to not readily flow when cooled, the trenches should be located initially on either side of the pipeline center line. Visual observations and soil odor observations can initially be used to define the extent of the fuel oil. Based on the boring logs, the excavated soils will primarily be clays to approximately 15 feet below grade level at B-1. Below this strata the soils transition to silty sands. Since fuel oil will not easily mobilize within the clays, it is assumed that fuel oils are contained within the clays. The PID readings support this hypothesis (See boring B-1 log).

Diesel Pumping Station Impact

Boring B-7 was installed adjacent to the former diesel pumping station. From a depth of 25 feet BGS to auger refusal at 45 feet BGS, the PID readings increased from non-detect to a high of 447 ppm. Soil samples taken at 40 and 45 feet were reported with diesel concentrations of 7,200 and 9,800 mg/kg, respectively. The fuel screen on sample B7-45 confirmed diesel in the soil, in addition to detectable concentrations of BTEX compounds.

Based on soil results of borings surrounding B-7, namely B-3, -4, -5, -6, and -8, the diesel concentrations reported at the base of B7-45 appear to be localized within the area defined by the circumscribing borings B-3, -4, -5, -6, and -8. Diesel analysis on the deepest samples from borings B4-40, B5-41, and B6-25, -30, and -35 were all reported at non-detectable concentrations (i.e. <5 mg/kg). These results support the local impact theory relative to boring B-7.

Since the impact of the diesel on soils within boring B-7 is deep and the diesel release area is surrounded by operating equipment, buildings, and other surface structures, it is not practical or economically feasible to excavate soils. Therefore, in accordance with the County's approval letter, a TCLP analysis was requested on sample B7-45. As indicated in Table 1, the results were reported at 1.1 mg/l.

As indicated by the boring logs, decomposed granite was encountered during the work and this granite formation caused auger refusal when attempting to advance a boring into the formation. Research into the detail geology of the area surrounding boring B-7 (the boiler diesel release area) indicate that the boiler area is within a granite formation with no apparent groundwater beneath the site. A series of historical drawings (Drawings 1, 2, 3, 4 and 5) retrieved from Riverside Cement archives, supports this statement.

Drawing 1: Crestmore Area - Hydrographic Map (circa 1927)
This is an overview area drawing indicating the location of diamond drilled holes. The significant item is the location of the boiler release area within an outcrop known as bed rock hills - a granite/diorite formation. Groundwater contours do not penetrate the bed rock formation; the contours tend to flow by the bedrock formation.

According to the Crestmore "Mining and Reclamation Plan", Revised June 29, 1990, "Minimal ground water existed on the site until prior to the flooding of the mine in 1979. Since bedrock resides at a depth of only a few feet below ground surface, no aquifers are present." The water forming "Crestmore Lake" and subsequent water noted in the diamond hole drilling, resulted from primarily alluvium groundwater flowing into the area when the alluvium was penetrated in 1979. Further literature searches also indicated that there could be a secondary deeper water source, separate from the alluvium.

However, in the area of the boiler release area, there is no known groundwater due to the granite formation beneath the site.

Drawing 2: W.P. Rowe & Son, June 18, 1952: Crestmore Area Map
This is an overview site map indicating the primary mined areas at the site. The boiler release area is at coordinates 1825 N,1350 E. As indicated by the drawing, the boiler release area is west of the active mining zones.

Mining of the limestone did not advance any further west than indicated on the drawing. The reason was the encountering of granite bed rock material as the mining operation proceeded west. This granite formation was encountered to depths of at least 600 feet below ground surface.

Drawings 3 and 4: W.P. Rowe & Son, circa 1928 Figures.
These two figures indicate the site area and the location of the limestone mining areas. The significance of the Drawing 3 is the location and the notation of the footwall and hanging wall contours. The footwall, the demarcation between the granite and limestone, decreases with depth as the formation dips to the east. The dipping of the limestone to the east is represented in Drawing 4 (Cross-Section C-C). As indicated in Drawing 4, the granite formation is located west and beneath the limestone formation. This same granite formation prohibited mining toward the west (i.e. toward the boiler release area).

Drawing 5: ERM-West, "Technical Evaluation 9/30/1990 EPA FIT Report" prepared for Riverside Cement, November, 1991.
The alluvium groundwater contours are summarized on this drawing. As indicated the groundwater flow is complex and tends to flow around the granite outcropping noted in Drawing 1 above. The location of the diesel release area is outside of the ground water flow influence.

Considering the diesel release area is covered with concrete, the source of the diesel has been eliminated (i.e. the underground tanks and pipeline to the diesel pumps have been isolated from the diesel sump), the diesel pumps have been removed, and the absence of groundwater in the localized surroundings of the release area, the diesel concentrations residing at the granite interface at 45 feet below ground surface do not appear to be impacting the environment. Migration of diesel within the fissures and cracks is assumed to be limited by the naturally occurring clays filling the cracks (reference ERM-West, November, 1991, FIT response).

CONCLUSIONS

1. Soils within the White Kilns area can generally be described from ground surface to depths of 40 to 45 feet as: 5 feet of fill overlaying 5 to 20 feet of clays/silty-clays/ silty-sands; beneath this strata is 10 to 15 feet of sand (fine to medium); the sand grades into a decomposed granite overlaying a bedrock formation ranging between 40 to 45 feet below ground surface.

2. Based on horizontal borings, hydrocarbons have not impacted the soils at a depth of 6 to 7 feet beneath the boiler building.

3. Two consecutive clean soil samples (hydrocarbon concentration < 5 mg/kg) were reported in all but one borehole (B-7). With the one exception, the vertical extent of hydrocarbons in soil has been defined by the work.

4. Hydrocarbon release at the No. 6 fuel oil pipeline appears to be localized within the pipeline alignment. The soils immediately underlying the pipeline are of a clay nature. No. 6 fuel oil released to the soils appear to

be contained within a relatively small area based on non-detectable hydrocarbons in adjacent borings and at depths within boring B-1 beneath the 10 foot depth interval.

5. The diesel pumping station has impacted soils beneath the site. Diesel hydrocarbons have migrated through soils to a depth of at least 45 feet (BGS). Hydrocarbons in soil appear to be limited to the general area surrounding boring B-7. Soil samples at similar depths (up to 40 feet BGS) in borings surrounding the diesel pumping station were not reported with diesel concentrations above a detection level of 5 mg/kg.

6. The vertical extent of hydrocarbons have not been defined at the diesel pumping station (boring B-7). Diesel concentration range between 9,800 to 12,000 mg/kg at a refusal depth of 45 feet below ground surface in Boring B-7. An extracted diesel concentration using the TCLP procedure is 1.1 mg/l. However, the deepest soil samples from borings circumscribing B-7 were reported with non-detectable concentrations of diesel. The indication is the release is localized beneath the former diesel pumping station.

7. Review of the geology within the White Kiln Area describe a granite outcropping beneath the immediate site. Alluvium to various depths surround the bed rock outcrop. Based on water data from the alluvium, historical groundwater studies and summaries performed in 1928, the 1950s, and as recent as 1990, and the absence of water in the borings drilled during this site assessment, there appears to be no groundwater contact beneath the diesel release area.

RECOMMENDATIONS

1. Excavate the hydrocarbon impacted soils, within the existing excavation, adjacent to and surrounding Boring B-1 at 10 feet. The concept is a trench excavation with the former pipeline alignment as the centerline. Assuming that the trench will be 10 feet wide, 15 feet deep, and 50 feet long, the estimated in-place volume is 300 cubic yards. Assuming a swell factor of 20 percent and a contingency of 30 percent, the upper range of soil excavation could reach 450 cubic yards.

2. At the diesel release area, it is recommended that a No Further Action position be taken. Based on review of the local geology, groundwater conditions, and site assessment work, it appears the release is localized. Additionally, a granite formation exists beneath the site. Based on observations in diamond drill holes and evaluation by geologists at other locations within the Crestmore facility, the fissures and cracks beneath the site are more than likely filled with naturally occurring clays, thus, reducing the likelihood of diesel migrating through fissures and cracks within the granite. It is recommended that the diesel be left in place, and allowed to naturally degrade over time by weathering and bacterial degradation.

SITE ASSESSMENT REPORT REVIEW

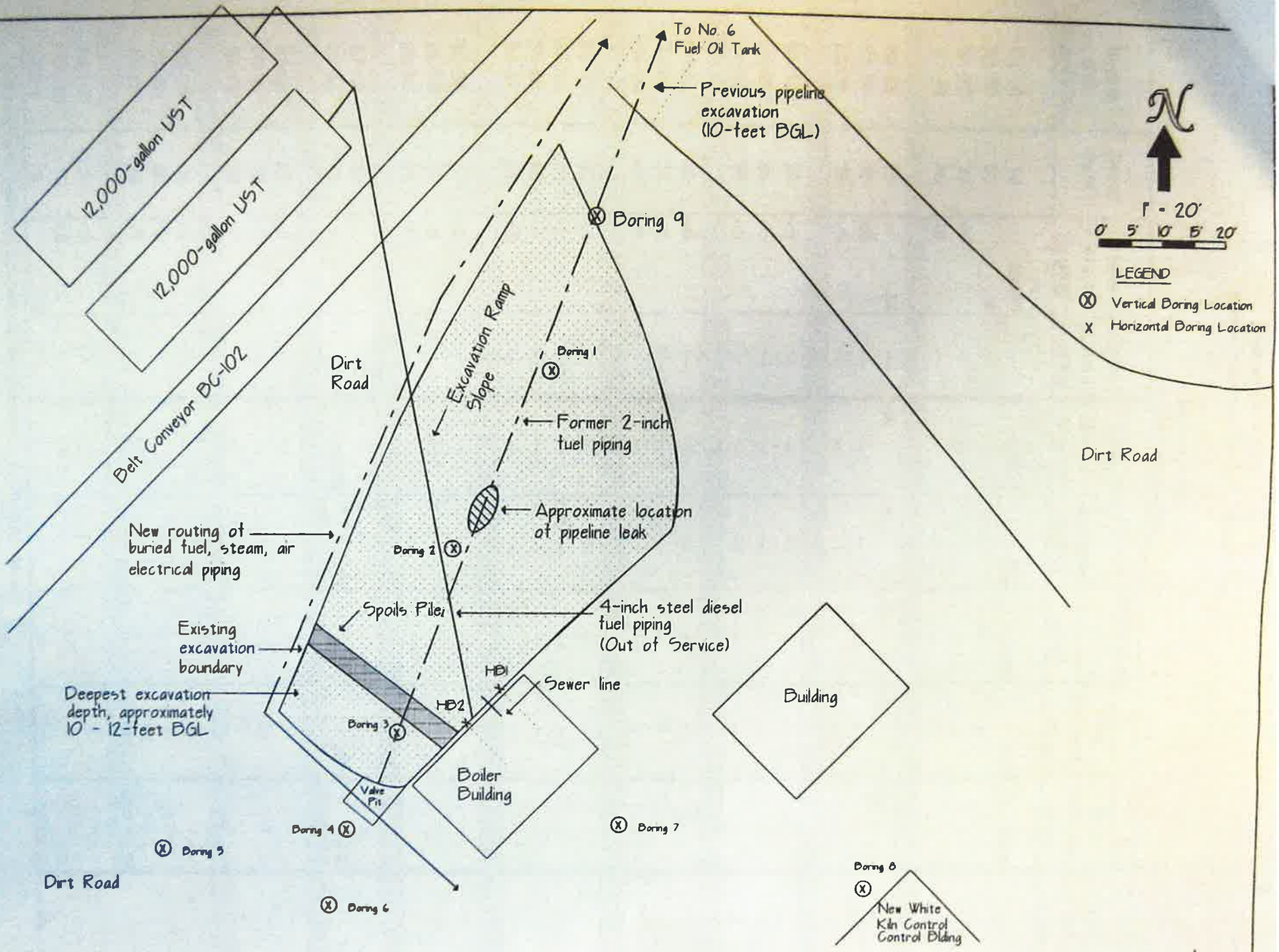
As required by Riverside County, the Site Assessment activities and subject soil sampling results discussed in this report have been prepared, reviewed, and approved by the undersigned professional engineer.

Bases on currently available data concerning this site, the Site Assessment Report conforms to standard accepted groundwater and engineering geologic practices in use in California at this time.

Dennis Miller

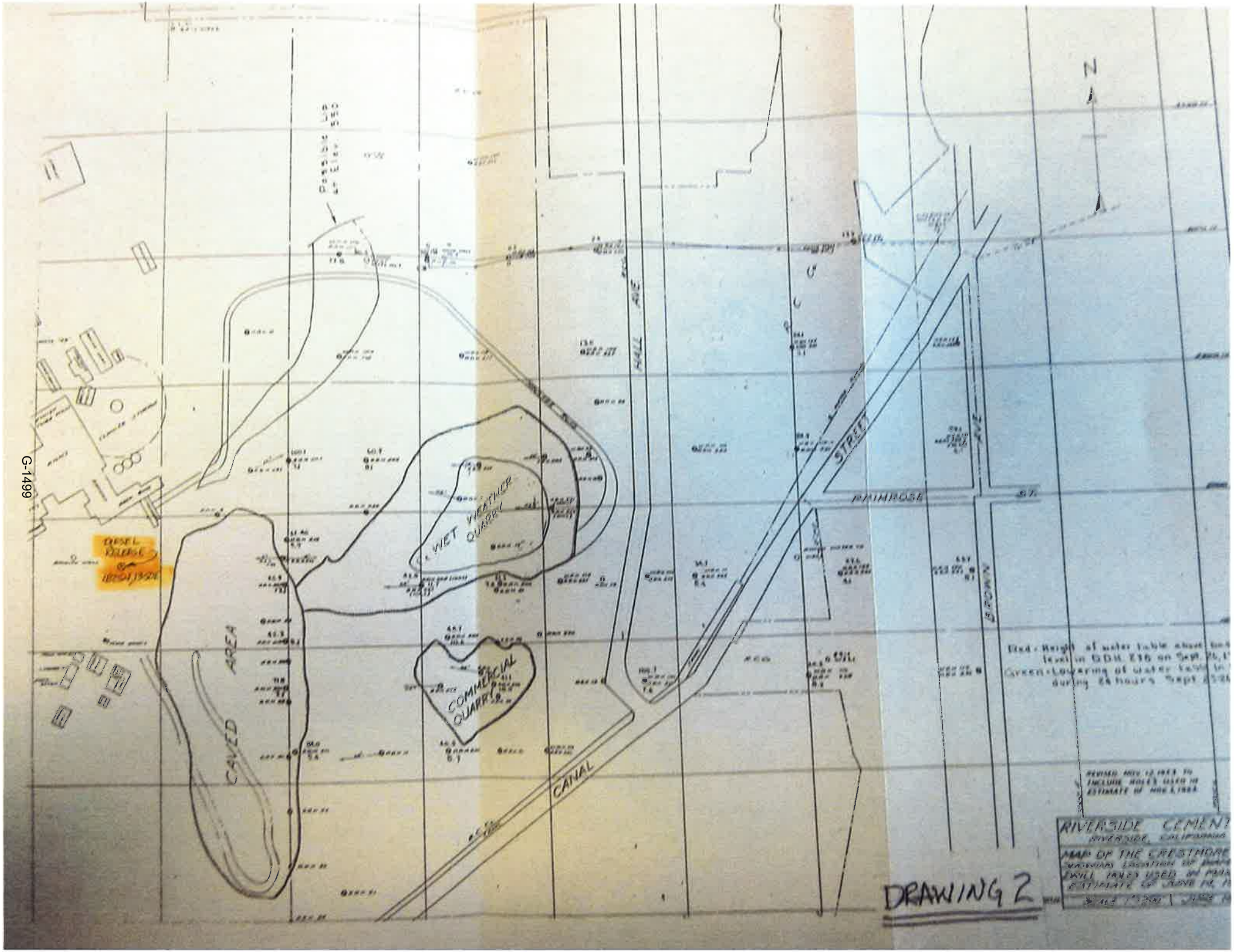
Dennis Miller, P.E.
C.E. #28108



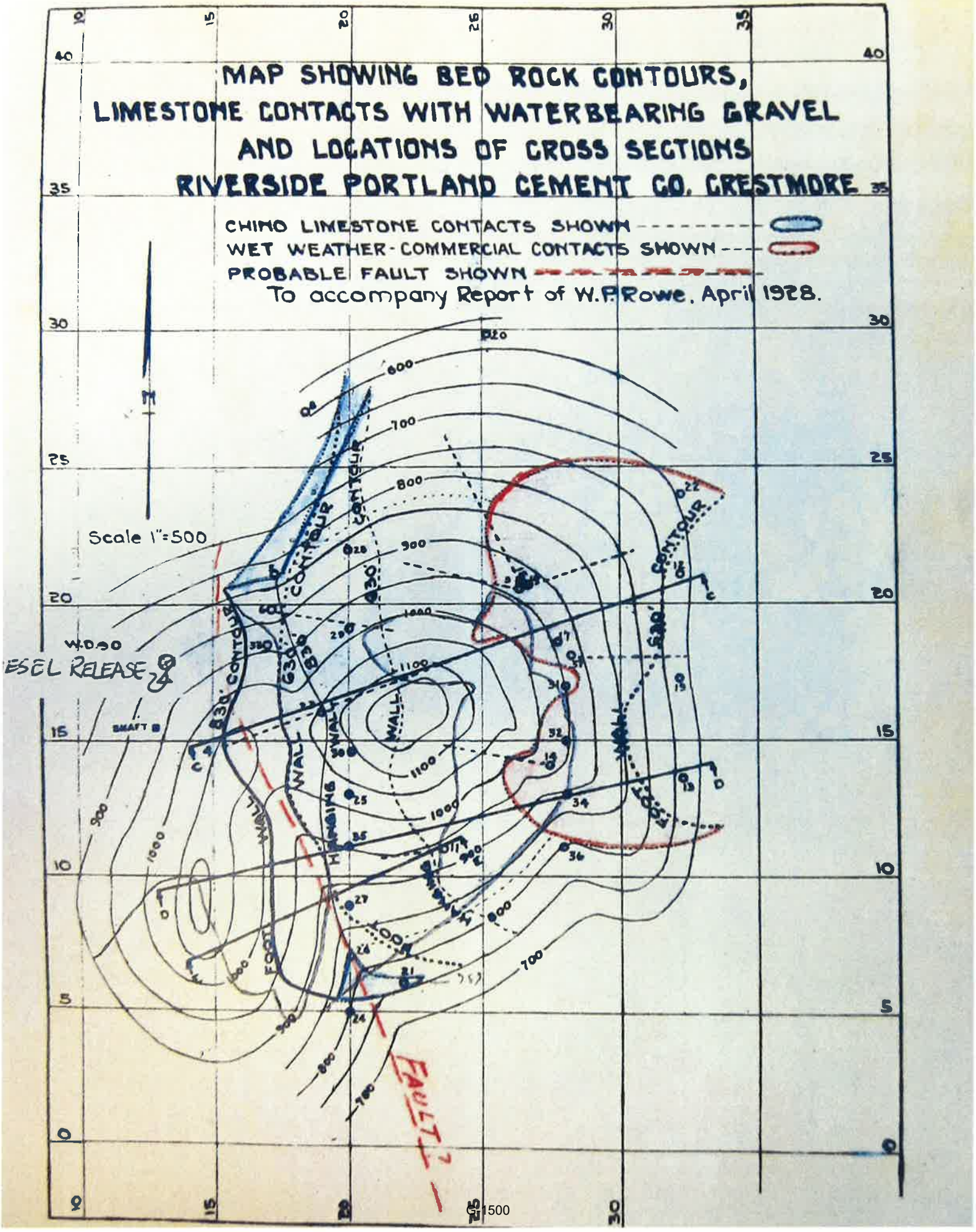


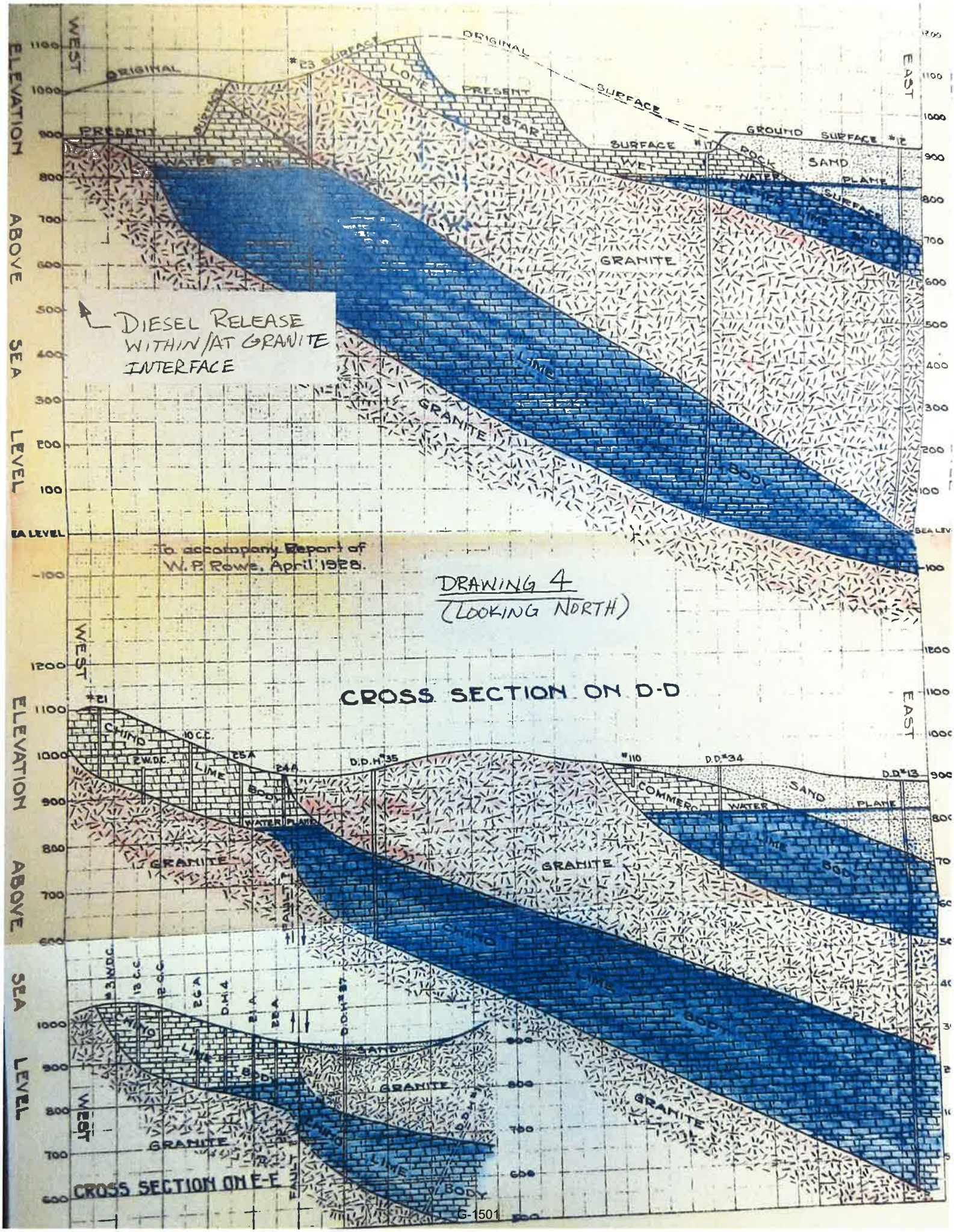
G-1498

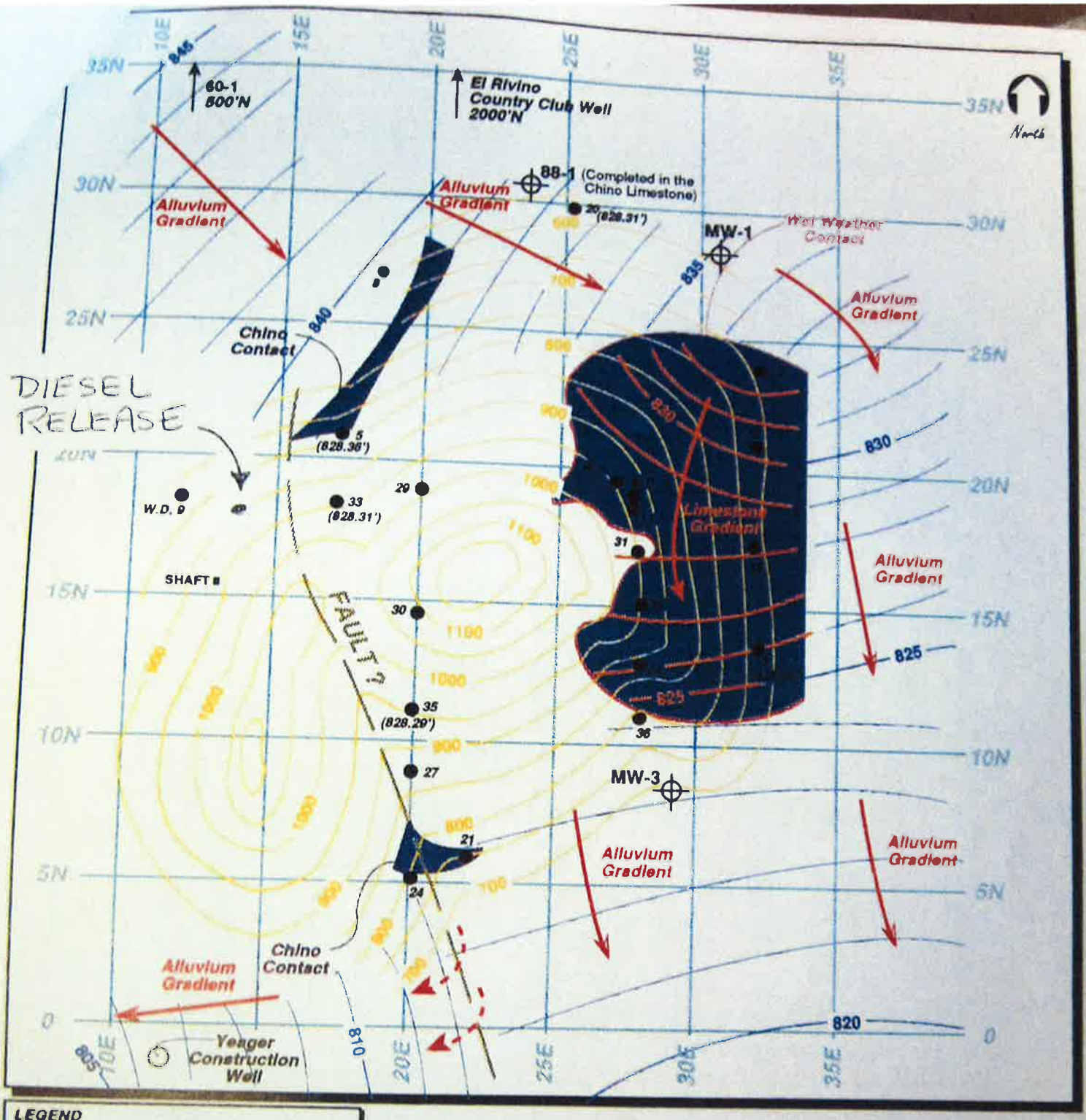
Ryan-Murphy, Inc. Western Operations 211 Granite Street, Suite E Corona, California 91719 (909) 279-6210	Figure 2: Site Plot Plan	Riverside Cement Company 1500 Rubdoux Boulevard Riverside, CA	Drawn by: D. Ellison	Approved by: E. Suher
			RMI Project: 1008.00	Date: 02/17/95


N
HALL AVE
STREET
WET WEATHER QUARRY
COMMERCIAL QUARRY
CAVED AREA
CANAL
DRAWING 2

G-1499


MAP SHOWING BED ROCK CONTOURS,
LIMESTONE CONTACTS WITH WATERBEARING GRAVEL
AND LOCATIONS OF CROSS SECTIONS
RIVERSIDE PORTLAND CEMENT CO. CRESTMORE
CHINO LIMESTONE CONTACTS SHOWN
WET WEATHER - COMMERCIAL CONTACTS SHOWN
PROBABLE FAULT SHOWN
To accompany Report of W.P. Rowe, April 1928.
Scale 1"=500
FAULT
1500


ELEVATION ABOVE SEA LEVEL
WEST
EAST
ORIGINAL SURFACE
PRESENT SURFACE
WATER PLANE
GROUND SURFACE #12
ROCK SURFACE #11
SAND
GRANITE
LIME BODY
DIESEL RELEASE WITHIN/AT GRANITE INTERFACE
To accompany Report of W. P. Rowe, April 1928.
DRAWING 4
(LOOKING NORTH)
CROSS SECTION ON D-D
CROSS SECTION ON E-E
FAULT
COMMERC.
CHIND.
10 C.E.
12 W.D.C.
13 C.C.
12 D.C.
D.H.4
D.H.#35
D.D.#34
D.D.#13
#110
#21
#23



LEGEND

- Ground Water Well
- 828.36 - Chino Limestone Ground Water Elevation
- Wet Weather Hydrographic Contour
- Alluvium Hydrographic Contour
- Bed Rock Contour
- Chino Contact
- Wet Weather Contact
- Ground Water Flow Direction in Alluvium
- Ground Water Flow Direction in Commercial and Wet Weather Limestone
- Inferred Leakage of Ground Water Across Fault Boundary

Scale in Feet 1"=500'

0 500'

ERM-West, Inc. 11/91
1231/DMPV-7.29.91

FIGURE 2-5
GROUND WATER CONTOUR MAP
(Adapted from W. P. Rowe, 1928)
RIVERSIDE CEMENT CRESTMORE PLANT
RIVERSIDE, CALIFORNIA

DRAWING 5

1008.00	Project Name: Riverside Cement - White Kilns Pipeline		Site Location: RCC - Crestmore Facility
Ed Suher	Drill Co.: Geo-Sec	Driller: Jim Duncan	Drill Rig: Mobile B-53 / Boring #: B1
Logged: 1/31/95	Boring Elev.:	Ref/Datum	Boring Diameter: 8" HSA / Drive Weight: 140 pounds

Depth (Ft.)	Sample Location	Blow Counts	Lithology USCS	FID/PID Reading (PPM)	Description Lithology, Color, Grain Size, Sorting/Grading, Density, Hardness, Moisture	Well Construction Details
0-					Fill	
5-	X	4/5/6	CL	39	Light brown clay, moist, petroleum odor, black staining, oily	
10-	X	2/7/3	CL	1200	Light brown clay, moist, strong petroleum odor, black staining, oily	
15-	X	4/8/12	SM	1000	Light brown silty sand, moist, few pebbles/rocks, petroleum odor.	
20-	X	8/25/50	SM	47	Light brown silty sand, moist, few pebbles/rocks, no petroleum odor or staining.	
25-	X	20/35/21	SM	34	Light brown silty sand, moist, few pebbles/rocks, no petroleum odor or staining.	
30-	X	7/7/9	CL	ND	Reddish brown clay, moist, plastic, no petroleum odor or staining.	
35-	X	10/10/13	CL	ND	Reddish brown clay, moist, plastic, no petroleum odor or staining.	
40-	X	13/17/25	CL	ND	Reddish brown clay, mosit, plastic, no petroleum odor or staining. Some rock fragments. Boring terminated following 40' sample. No groundwater encountered.	
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VAN-MURPHY INCORPORATED
ESTERN DIVISION OFFICES
I GRANITE STREET SUITE E
DRONA, CA 91719
) 279 6210

Logger's Signature: E H Suher

1008.00	Project Name: Riverside Cement - White Kilns Pipeline		Site Location: RCC - Crestmore Facility	
Ed Sutter	Drill Co.: Geo-Sec	Driller: Jim Duncan	Drill Rig: Mobile B-53	Boring #: B2
Dated: 1/31/95	Boring Elev.:	Ref/Datum:	Boring Diameter: 8" HSA	Drive Weight: 140 pounds

Depth (Ft.)	Sample Location	Blow Counts	Lithology USCS	FID/PID Reading (PPM)	Description Lithology, Color, Grain Size, Sorting/Grading, Density, Hardness, Moisture	Well Construction Details
0					Fill	
5	X	2/2/3	CL	30	Light brown clay, moist, petroleum odor.	
10	X	10/12/12	SM	ND	Light brown silty sand, moist, few pebbles, no petroleum odor or staining.	
15	X	28/50 for 6"	SM	ND	Light brown silty sand, few pebbles/rocks, no petroleum odor or staining.	
20	X	20/20/20	SM	ND	Light brown silty sand, few pebbles/rocks, no petroleum odors or staining.	
25	X	9/9/13	SM	ND	Light brown silty sandy, few pebbles/rocks, no petroleum odor or staining.	
30	X	13/21/27	CL	ND	Reddish brown clay, moist, plastic, no petroleum odor or staining.	
35	X	12/16/18	CL	ND	Reddish brown clay, moist, plastic, no petroleum odor or staining. Hole very tight.	
40	X	20/34/50 for 5"	SP	ND	Reddish brown sand, with a few pebbles, no petroleum odor or staining. Boring terminated following 40' sample. No groundwater encountered.	
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...TERN DIVISION OFFICES
...GRANITE STREET SUITE E
...NA, CA 91719
... 320 6216

Logger's Signature: E H Sutter

- BORING/WELL LOG -

1008.00	Project Name: Riverside Cement - White Kilns Pipeline		Site Location: RCC - Crestmore Facility
Logged: Ed Suber	Drill Co.: Geo-Sec	Driller: Jim Duncan	Drill Rig: Mobile B-53	Boring #: B3
Drilled: 1/31/95	Boring Elev.:	Ref Datum:	Boring Diameter: 8" HSA	Drive Weight: 140 pounds

Depth (Ft.)	Sample Location	Blow Counts	Lithology USCS	FID/PID Reading (PPM)	Description Lithology, Color, Grain Size, Sorting/Grading, Density, Hardness, Moisture	Well Construction Details
0					Fill	
5	X	2/3/5	CL	21	Dark brown clay, moist, petroleum odor, oil stained, oily	
10	X	10/10/7	SM	ND	Light brown silty sand, moist, few pebbles/rocks, no petroleum odor or staining.	
15	X	20/50 for 4"	SM	ND	Light brown silty sand, moist, few pebbles/rocks, no petroleum odor or staining.	
20	X	9/14/14	CL	ND	Reddish brown clay, moist, plastic, no petroleum odor or staining.	
25	X	11/13/20	SC	ND	Reddish brown clay/sand mixture, no petroleum odor or staining.	
30	X	18/27/50		ND	Light brown to white decomposed granite, dry, no petroleum odor or staining.	
35	X	50 for 4"		ND	Light brown to white decomposed granite, dry, no petrolem odor or staining. Auger refusal @ 35'. Boring terminated following 35' sample. No groundwater encountered.	
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RYAN-MURPHY INCORPORATED
WESTERN DIVISION OFFICES
211 GRANITE STREET SUITE E
CORONA, CA 91719
(909) 279 6210

Logger's Signature: E D Suber

- BORING/WELL LOG -

1008.00	Project Name: Riverside Cement - White Kilns Pipeline		Site Location: RCC - Crestmore Facility
Logged: Ed Suher	Drill Co.: Geo-Sec	Driller: Jim Duncan	Drill Rig: Mobile B-53
Drilled: 1/30/95	Boring Elev.:	Ref/Datum:	Boring Diameter: 8" HSA

Boring #: B4

Drive Weight: 140 pounds

Depth (Ft.)	Sample Location	Blow Counts	Lithology USCS	PID/PID Reading (PPM)	Description Lithology, Color, Grain Size, Sorting/Grading, Density, Hardness, Moisture	Well Construction Details
0-					Fill	
5-	X	2/2/4	CL	ND	Dark brown silty clay, few sand particles, moist, no petroleum odor or staining.	
10-	X	2/2/3	CL	ND	Dark brown clay, moist, no petroleum odor or staining.	
15-	X	7/11/15	SM	ND	Brown silty sand, less moist, no petroleum odor or staining.	
20-	X	4/11/17	SM	ND	Brown silty sand, moist, few pebbles/rocks, no petroleum odor or staining.	
25-	X	25/45/50	SM	ND	Brown silty sand, moist, few pebbles/rocks, no petroleum odor or staining.	
30-	X	30/50 for 5"	SM	ND	Light brown to white fine sand, very little moisture, no petroleum odor or staining. Very dense.	
35-	X	40/50 for 2"	SM	ND	Light brown to white fine sand, very little moisture. No petroleum odor or staining.	
40-	X	50	SP	ND	Reddish brown sand w/ few pebbles, no petroleum odor or staining, less moisture. Grading into light brown to white fine sand, very dense, possibly decomposed granite. Boring terminated following 40' sample. No groundwater encountered.	
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MURPHY INCORPORATED
ERN DIVISION OFFICES
RANITE STREET SUITE B
NA, CA 91719
79 6200

Logger's Signature: E H Suher

- BORING/WELL LOG -

1008.00	Project Name: Riverside Cement - White Kilns Pipeline		Page 1 of 1
Logged: Ed Suber	Drill Co.: Geo-Sec	Driller: Jim Deacon	Site Location: RCC - Customer Facility
Started: 1/30/95	Boring Elev.	Ref Datum	Drill Rig: Mobile B-53 / Boring #: B5
			Boring Diameter: 8" HSA / Drive Weight: 140 pounds

Depth (Ft.)	Sample Location	Blow Counts	Lithology USCS	PID/FID Reading (PPM)	Description Lithology, Color, Grain Size, Sorting/Grading, Density, Hardness, Moisture	Well Construction Details
0					Fill	
5	X	4/5/6	CL	ND	Dark brown clay with some fragments of white decomposed granite, no petroleum odor or staining.	
10	X	3/4/6	CL	ND	Light brown clay, with fragments of white decomposed granite. No petroleum odor or staining.	
15	X	3/6/9	CL	ND	Dark brown clay, no petroleum odor or staining.	
20	X	3/4/5	CL	ND	Dark brown clay. No petroleum odor or staining.	
25	X	25/30/40	SM/SP	ND	Light brown to gray sand with fragments of decomposed granite. No petroleum odor or staining.	
30	X	20/20/50	SP	ND	Reddish brown sand grading into white decomposed granite, no petroleum odor or staining.	
35	X	25/50 for 5.5"	SP	ND	Reddish brown sand grading into white decomposed granite no petroleum odor or staining.	
40	X X	50 for 5.75" 50 for 5.5"	SP	147	Reddish brown sand grading into white decomposed granite. Auger refusal. Boring terminated following 41' sample. No groundwater encountered.	
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[illegible]-MURPHEY INCORPORATED
[illegible] DIVISION OFFICES
[illegible] GRANITE STREET SUITE E
[illegible], CA 92709
[illegible] 209 6210

Logger's Signature: E D Suber

- BORING/WELL LOG -

1008.00	Project Name: Riverside Cement - White Kilns Pipeline		Site Location: RCC - Cresmore Facility
Ed Suher	Drill Co.: Geo-Sec	Driller: Jim Duncan	Drill Rig: Mobile B-53	Boring #: B6
Drilled: 1/30/95	Boring Elev.:	Ref/Datum	Boring Diameter: 8" HSA	Drive Weight: 140 pounds

Page 1 of 1

Depth (FL)	Sample Location	Blow Counts	Lithology USCS	FID/PID Reading (PPM)	Description Lithology, Color, Grain Size, Sorting/Grading, Density, Hardness, Moisture	Well Construction Details
0-					Fill	
5-	X	12/6/6	CL	ND	Brown sandy clay, moist, no petroleum odor or staining.	
10-	X	2/3/4	CL	ND	Dark brown clay, moist, no petroleum odor or staining.	
15-	X	3/10/21	SM	ND	Brown silty sand, less moist, no petroleum odor or staining.	
20-	X	18/40/45	SM	ND	Brown silty sand, less moist, few pebbles/rocks, no petroleum odors or staining.	
25-	X	13/40/50	SM	13	Brown silty sand, less moist, few pebbles/rocks, no petroleum odor or staining.	
30-	X	30/50 for 4"	SM	8	Light brown to white fine sand grading into decomposed granite, very dense. No petroleum odor or staining.	
35-	X	37/50 for 5"	DP	4	Reddish brown sand grading into white decomposed granite, no petroleum odor or staining.	
40-	X	50 for 5"		ND	Light brown to gray decomposed granite. No petroleum odor or staining.	
45-	X	50 for 5"		ND	Light brown to white decomposed granite, no petroleum odor or staining. Auger refusal. Boring terminated following 45' sample. No groundwater encountered.	
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AN-MURPHY INCORPORATED
STERN DIVISION OFFICES
GRANITE STREET SUITE E
RONA, CA 91719
9 279 6310

Logger's Signature: E G Suher

- BORING/WELL LOG -

1008.00	Project Name: Riverside Cement - White Kilns Pipeline		Site Location: RCC - Crestmore Facility
Ed Suber	Drill Co.: Discovery Drilling	Driller: Mitch Palmer	Drill Rig: Limited Access B - 53	Boring #: B7
1/30/95	Boring Elev.:	Ref/Datum:	Boring Diameter: 8" HSA	Drive Weight: 140 pounds

Depth (FL)	Sample Location	Blow Counts	Lithology USCS	PID/FID Reading (PPM)	Description Lithology, Color, Grain Size, Sorting/Grading, Density, Hardness, Moisture	Well Construction Details
0-					Concrete at surface Fill	
5-	X	7/7/13	CL	ND	Dark brown clay, no petroleum odor or staining.	
10-	X	13/14/19	SM	ND	Brown silty sand, no petroleum odor or staining.	
15-	X	41/42/45	SW	217	Gray sand or decomposed granite, petroleum odor.	
20-	X	21/24/33	SW	ND	Gray to brown medium sand or decomposed granite. No petroleum odor.	
25-	X X	50 for 6" 50 for 2.5"	SW	20	Brown medium sand or decomposed granite. Slight petroleum odor.	
30-	X	22/33/35	SW	200	Brown medium sand grading into decomposed granite. Petroleum odor.	
35-	X	50 for 5"	SW	403	Brown sand grading into decomposed granite. Petroleum odor.	
40-	X	60 for 5"		440	White decomposed granite. Petroleum odor.	
45-	X	100 for 8"		447	White decomposed granite. Petroleum odor. Auger refusal. Boring terminated following 45' sample. No groundwater encountered.	
50-						

TAN-MURPHY INCORPORATED
ESTERN DIVISION OFFICES
1 GRANITE STREET SUITE E
ORONA, CA 91719
(909) 279 0260

Logger's Signature: E D Suber

- BORING/WELL LOG -

1008.00	Project Name: Riverside Cement - White Kilns Pipeline		Site Location: RCC - Cresmore Facility
Ed Suher	Drill Co.: Geo-Sec	Driller: Jim Duncan	Drill Rig: Mobile B-53 / Boring #: B8
Drilled: 1/31/95	Boring Elev.:	Ref/Datum:	Boring Diameter: 8" HSA / Drive Weight: 140 pounds

Depth (Ft.)	Sample Location	Blow Counts	Lithology USCS	FID/PID Reading (PPM)	Description Lithology, Color, Grain Size, Sorting/Grading, Density, Hardness, Moisture	Well Construction Details
0-			SW		Concrete (at surface) Brown medium sand, slightly moist, no petroleum odor or staining.	
5-	X	24/50	SW	ND	Brown medium sand grading into white decomposed granite. Slightly moist, no petroleum odor or staining.	
10-	X	50/50 for 3"		56	White decomposed granite, dry, no petroleum odor or staining.	
15-	X	50 for 3"	SW	21	Brown medium sand with fragments of white decomposed granite, no petroleum odor or staining.	
20-	X	50 for 6"	SW	1000	Brown medium sand with fragments of white decomposed granite, no petroleum odor or staining.	
25-	X	50 for 5.5"	SW	113	Brown medium sand with fragments of white decomposed granite, no petroleum odor or staining.	
30-	X	50 for 6"	SW	52	Brown medium sand with fragments of white decomposed granite, no petroleum odor or staining.	
35-	X	50 for 5"	SW	21	Brown medium sand grading into brown to black decomposed granite, black mica flakes, dry, no petroleum odor or staining.	
40-	X	50 for 4"		47	Brown to black decomposed granite, black mica flakes, dry, no petroleum odor or staining. Boring terminated following 40' sample. No groundwater encountered.	
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WESTERN DIVISION OFFICES
11 GRANITE STREET SUITE E
ORONA, CA 91719
(909) 279 6230

Logger's Signature: E G Suher

1008.00	Project Name: Riverside Cement - White Kiln Pipeline		Site Location: RCC - Crestmore Facility	Page 1 of 1
Ed Suher	Drill Co.: Geo-Sec	Driller: Jim Duncan	Drill Rig: Mobile B-53	Boring #: B9
1/31/95	Boring Elev.:	Ref/Datum	Boring Diameter: 8" HSA	Drive Weight: 140 Pounds

Depth (Ft.)	Sample Location	Blow Counts	Lithology USCS	FID/PID Reading (PPM)	Description Lithology, Color, Grain Size, Sorting/Grading, Density, Hardness, Moisture	Well Construction Details
0					Asphalt (at surface) Fill	
5	N/A	N/A	N/A	NA	No sample collected.	
10	X	3/10/10	CL	ND	Brown silty clay, moist, slight petroleum odor	
15	X	3/5/5	CL	ND	Dark brown silty clay, moist, slight petroleum odor.	
20	X	8/10/12	SM	ND	Light brown to gray fine silty sand, moist, no petroleum odor or staining.	
25	X	45/40/50	SW	ND	Light gray medium sand with few pebbles/rocks, no petroleum odor or staining. Boring terminated following 25' sample. No groundwater encountered.	
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35						
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RYAN-MURPHY INCORPORATED
WESTERN DIVISION OFFICES
211 GRANITE STREET SUITE E
CORONA, CA 91719
(909) 279 0210

Logger's Signature: E D Suher

- BORING/WELL LOG -

1008.00	Project Name: Riverside Cement - White Kiln Pipeline		Site Location: RCC - Cresmore Facility
Ed Suher	Drill Co.: RMI (hand auger	Driller: Ed Suher/Joe Blackburn	Drill Rig: Hand Auger — Boring #: HB1/HB2
Drilled: 1/30/05	Boring Elev.:	Ref/Datum:	Boring Diameter: 3" hand auger — Drive Weight:

Depth (Ft.)	Sample Location	Blow Counts	Lithology USCS	FID/PID Reading (PPM)	Description Lithology, Color, Grain Size, Sorting/Grading, Density, Hardness, Moisture	Well Construction Details
0-					Fill	
5-	X	N/A (hand auger) (horizontal)	CL	ND	Dark brown clay, very moist, no petroleum odor or staining.	
10-	X	N/A (hand auger) (horizontal)	CL	ND	Dar brown clay, very moist, no petroleum odor or staining.	
5-	X		CL	ND	Dark brown silty clay, few brick fragments, moist, no petroleum odor or staining. Hand auger refusal at 8' (horizontal). No sample.	
10-						
15-						
20-						
25-						
30-						
35-						
40-						

RYAN-MURPHY INCORPORATED
WESTERN DIVISION OFFICES
211 GRANITE STREET SUITE E
CORONA, CA 91719
(909) 279 0210

Logger's Signature: E.H. Suher

Corporate Office
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Westminster, Colorado 80030
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RMI
Ryan-Murphy Incorporated
"The Good Earth Company"

Division Office
211 Granite Street, Suite E
Corona, California 91719
(909) 279-6210
Fax (909) 279-6215

December 11, 1995

County of Riverside
Health Services Agency
Hazardous Materials Management Division
4065 County Circle Drive
P.O. Box 7600
Riverside, California 92513-7600

Attention: Mr. Daniel T. Workman

Site: Riverside Cement Company, 1500 Rubidoux Blvd., Riverside, CA

Re: White Kilns Pipeline Site Assessment Report, July 7, 1995

Subject: Report of findings following remedial excavation of hydrocarbon impacted soil

Dear Mr. Workman:

On behalf of the Riverside Cement Company, this letter summarizes the remedial excavation for the subject project. On November 29, 1995, Ryan-Murphy, Incorporated (RMI) excavated approximately 525 cubic yards of hydrocarbon impacted soil in the area of the former white kiln fuel oil pipeline (see attached Figure 1: Site Plot Plan). This remedial excavation was in keeping with the recommendations included in the Site Assessment Report dated July 7, 1995 and with subsequent discussions with you. The remedial excavation activities were supervised by Ed Suher, RMI project manager.

The impacted soil was removed from the ramp area of the previous excavation and consisted of an excavation approximately 59 feet long by 23 feet wide (at its widest dimension) and ranged in depth from 9 feet deep in the west end to 13 feet deep in the east end, as measured from the existing slope elevations. The preliminary limits of the excavation were based on visual and olfactory observations and field screenings during excavation activities.

A mobile lab was utilized to verify the removal of the hydrocarbon impacted soil at the limits of the remedial excavation. Mr. Suher collected grab samples from the native soil as the excavation progressed in order to confirm removal of any/all impacted soil. Sample locations are indicated on the attached Figure 2: Sample Location Diagram and Figure 3: Excavation Cross Section. Confirmation soil samples were ultimately collected from the bottom, each end, and each sidewall of the remedial excavation.

All soil samples were collected from buckets of native soil extracted from the excavation utilizing the excavator. The samples were collected in sterile, 8-ounce, wide mouth glass jars. To prevent cross contamination, Mr. Suher used a new pair of latex gloves for each sample point. The samples were immediately submitted to an on-site, state certified, mobile laboratory from Centrum Analytical Laboratories, Inc. of Redlands, California under chain-of-custody documentation (chain-of-custody records attached).

All samples were analyzed for total petroleum hydrocarbons (TRPH) by EPA Method 418.1. Two soil samples, WW-1 @ 6' and EW-1 @ 10' initially exhibited TRPH results of 12,000 mg/kg and 6000 mg/kg, respectively. Further excavation was conducted in these two areas and confirmation samples WW-2 @ 6' and EW-2 @ 10' were collected with results of 7 mg/kg and 12 mg/kg, respectively. The remaining confirmation samples from the excavation sidewalls and bottom ranged from non detect (ND) to a high of 15 mg/kg (complete analytical report attached).

G-1514

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RMI
Ryan-Murphy Incorporated
"The Good Earth Company"

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Corona, California 91719
(909) 279-6210
Fax (909) 279-6215

March 21, 1996

County of Riverside
Health Services Agency
Hazardous Materials Management Division
4065 County Circle Drive
P.O. Box 7600
Riverside, California 92513-7600

Attention: Mr. Daniel T. Workman

Site: Riverside Cement Company, 1500 Rubidoux Blvd., Riverside, CA

Re: White Kilns Pipeline Site Assessment Report, July 7, 1995

Subject: Report of free product monitoring well installation near diesel release

Dear Mr. Workman:

On behalf of the Riverside Cement Company, this letter summarizes the free product monitoring well installation for the subject site. The well installation was in keeping with the Department of Environmental Health's (DEH) November 28, 1995 letter listing workplan revisions. The DEH letter requested that a four inch diameter well be installed at the midpoint between the original point of diesel release and boring B-7 (see attached Figure 1: Site Plot Plan). The purpose of the monitoring well was to monitor for possible free product (TPH) in the area of the release. On January 18, 1996, Ryan-Murphy, Incorporated (RMI) mobilized to the site to install the well. The drilling activities were supervised by Ed Suher, RMI project manager. Plant blueprints were reviewed for verification of underground utility locations, the concrete surface between the point of release and boring B-7 was sawcut, and the well boring was initiated. At approximately four feet below grade (bgl), a two inch natural gas pipe was encountered. Drilling activities were terminated pending repair of the pipe. During repair of the two inch gas pipe, a three inch natural gas pipe was discovered just six inches north of the damaged two inch pipe. Also exposed during the repair of the damaged pipe was an additional two inch natural gas pipe and an eight inch natural gas pipe.

On January 19, 1996, RMI re-mobilized to the site to complete the well installation. Plant blueprints were again reviewed for underground utility locations, the concrete surface was again sawcut, and the well boring was initiated. The 10-inch diameter boring was advanced to a depth of approximately 13 feet bgl when granite bedrock was encountered, resulting in auger refusal.

A four inch diameter PVC well was installed and constructed with 0.020 slotted pipe and #3 filter pack. The screened interval was from approximately thirteen feet bgl to approximately five feet bgl. A three foot bentonite seal was placed above the filter pack and the remaining borehole was grouted to the surface with concrete. The blank casing above the screened interval was extended approximately four feet above the existing concrete surface and protected by an eight inch diameter steel riser with a lockable lid. A well completion diagram is included on the attached boring log.

The former diesel pump sump where the release occurred was estimated to be six to eight feet deep. The screened portion of the monitoring well now extends below the bottom of the former sump. The soil removed from the boring as cuttings was stained grey and emitted a slight petroleum odor. The cuttings were stockpiled on plastic sheeting pending disposal as outlined in RMI's November 28, 1995 letter.

A photoionization detector (PID) was used periodically throughout drilling activities to monitor the soil for volatile organic vapors; the PID readings ranged from non detect at just below the surface to 162 ppm at approximately 10 feet bgl and 112 ppm at the termination depth of 13 feet bgl.

The previous boring drilled adjacent to the sump on January 30, 1995 was also drilled using an identical limited access rig. Eight inch diameter augers were used during this work. Bedrock material was also encountered at approximately the 13 foot level, but due to the smaller diameter augers and subsurface conditions, a depth of 45 feet was reached prior to auger refusal.

Unfortunately, relocating the January 19, 1996 well borehole to possibly reach greater depths was not possible due to the proximity of underground utilities and the constraints of the surrounding structures.

The well was checked for the presence of free product on January 26, 1996, February 5, 1996, February 29, 1996, and again on March 20, 1996. No free product was detected during any of the monitoring episodes.

In conclusion, the former sump and surrounding area are covered with uncompromised concrete. This cover will prevent water intrusion into the subsurface and minimize the potential leaching of residual hydrocarbons to deeper soil depths. Also, previously sampled borings B-4, B-5, and B-8 outlying the sump area did not detect diesel impacts at depth. Based on the recent field instrument readings, borehole observations, and previous drilling and sampling activities, RMI concludes that current site conditions in the area of the former diesel release do not pose a significant threat to the environment. In addition, RMI recommends that no further action be required for this area of the Riverside Cement facility with regards to the former diesel release.

Sincerely,

RYAN-MURPHY INCORPORATED

E G Suher

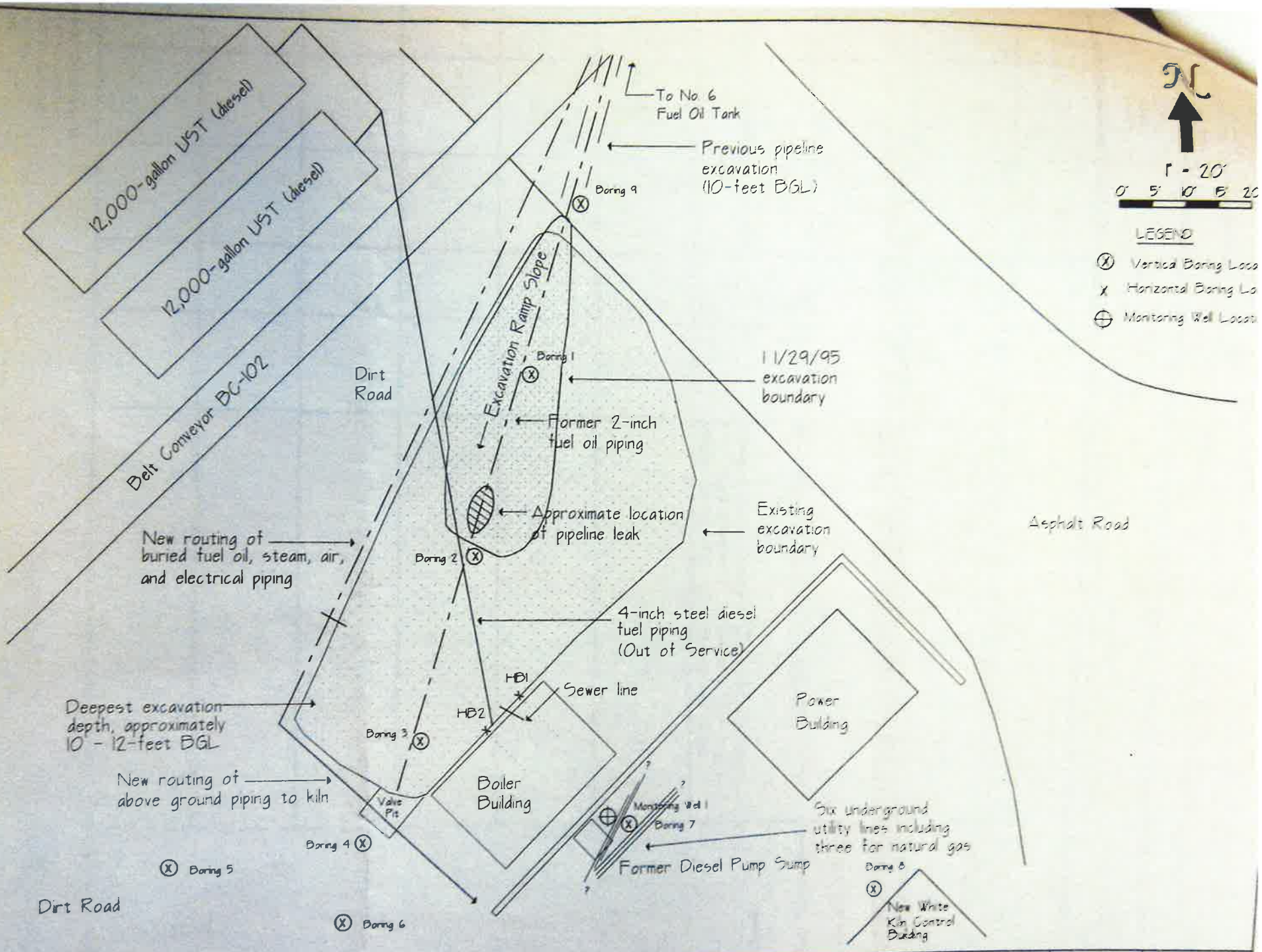
Edmond G. Suher
Project Manager

cc: **Dennis Smith, Riverside Cement Company**

attachments:

Figure 1: Site Plot Plan
Boring/Well Log

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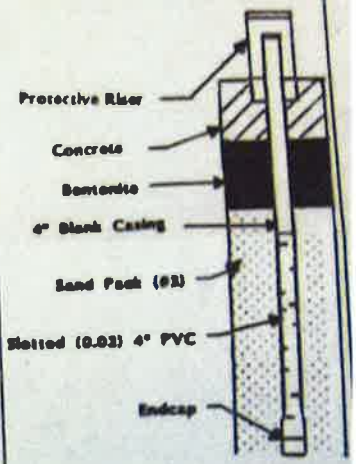
G-1517

Ryan-Murphy, Inc. Western Operations 211 Granite Street, Suite E Corona, California 91719 (909) 279-6210	Figure 1: Site Plot Plan	Riverside Cement Company 1500 Rubdoux Boulevard Riverside, CA	Drawn by: DE/ES; Approved by: E. Suher; RMI Project: 1044.00; Date: 11/30/95

Page 1 of 1

Logged By: Ed Suher	Project Name: Riverside Cement - White Kilns Pipeline	Site Location: RCC - Crestmore Facility	
Date Drilled: 1/10/96	Drill Co.: Spectrum Exploration	Driller: Keith Mahowski	Drill Rig: Limited Access CME-55
	Boring Elev.:	Ref/Datum:	Boring Diameter: 10" HSA
			Boring #: MW-1
			Drive Weight: 140 pounds

Depth (Ft.)	Sample Location	Blow Counts	Lithology USCS	PID/FID Reading (PPM)	Description Lithology, Color, Grain Size, Sorting/Grading, Density, Hardness, Moisture	Well Construction Details
0-		N/A		ND	Concrete surface (6"), fill (dirt with pieces of rock, brick, concrete rubble) .	
5-		N/A	CL	ND	Brown clay mixed with fill material; (dirt, pieces of rock, brick, etc); moist; no petroleum odor.	
10-			SM	162	Brown to gray silty sand; moist; petroleum odor.	
13-	X (Attempted)	no penetration		112	White/grey slightly decomposed granite; dry; slight petroleum odor. Auger refusal at 13'. Sample attempted, no recovery (granite). Completed 4" well to approximately 13' bgl.	



MURPHY INCORPORATED
TERN DIVISION OFFICE
GRANITE STREET SUITE E
ONA, CA 91719
279 6218

Logger's Signature: E H Suher

RIVERSIDE CEMENT COMPANY

Underground Fuel and Oil Storage Tank Inventory:

Location	Tank Size	Date Installed	Type Construction	Contents	Type leak Detection device
Oro Grande Plant	1,000	1990	Steel-double	Waste oil	Vadose
19404 National Trails Hwy.	10,000	1992	Steel-single	Gasoline	Vadose
Oro Grande, CA 92368	10,000	1992	Steel-single	Diesel	Vadose
Crestmore Plant	12,000	1963	Steel-single	Diesel	Daily inv.
1500 Rubidoux Blvd.	12,000	1963	Steel-single	Diesel	reconciliation
Riverside, CA 92509	10,000	1962	Steel-single	Gasoline	" " "

THERE HAVE BEEN NO KNOWN RELEASES FROM ANY OF THESE TANKS.

January 18, 1996

APPENDIX E

Historical EDR Documents-Aerial Photos, USGS Maps, City Directories

Crestmore Site
1500 Rubidoux Boulevard
Riverside, CA 92509

Inquiry Number: 4569494.9
March 23, 2016

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

03/23/16

Site Name:

Crestmore Site
1500 Rubidoux Boulevard
Riverside, CA 92509
EDR Inquiry # 4569494.9

Client Name:

Langan Engineering
32 Executive Park Suite 130
Irvine, CA 92614-0000
Contact: Jose Baron

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1995	1"=500'	Acquisition Date: June, 01 1994	USGS/DOQQ
1990	1"=700'	Flight Date: January, 01 1990	USGS
1985	1"=700'	Flight Date: January, 01 1985	USGS
1974	1"=700'	Flight Date: January, 01 1974	USGS
1968	1"=700'	Flight Date: January, 01 1968	USGS
1966	1"=700'	Flight Date: January, 01 1966	USGS
1953	1"=700'	Flight Date: January, 01 1953	USGS
1948	1"=700'	Flight Date: January, 01 1948	USGS
1938	1"=700'	Flight Date: January, 01 1938	USGS

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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INQUIRY #: 4569494.9

YEAR: 2012

= 500'

N

EDR

G-1523



INQUIRY #: 4569494.9

YEAR: 2012

= 500'

N

EDR

G-1524


INQUIRY #: 4569494.9
YEAR: 2010
= 500'
N
EDR
G-1525



INQUIRY #: 4569494.9

YEAR: 2010

= 500'

N

EDR

G-1526



INQUIRY #: 4569494.9

YEAR: 2009

= 500'

N

EDR

G-1527



INQUIRY #: 4569494.9

YEAR: 2009

= 500'

N

EDR

G-1528



INQUIRY #: 4569494.9

YEAR: 2005

= 500'

N

EDR

G-1529



INQUIRY #: 4569494.9

YEAR: 2005

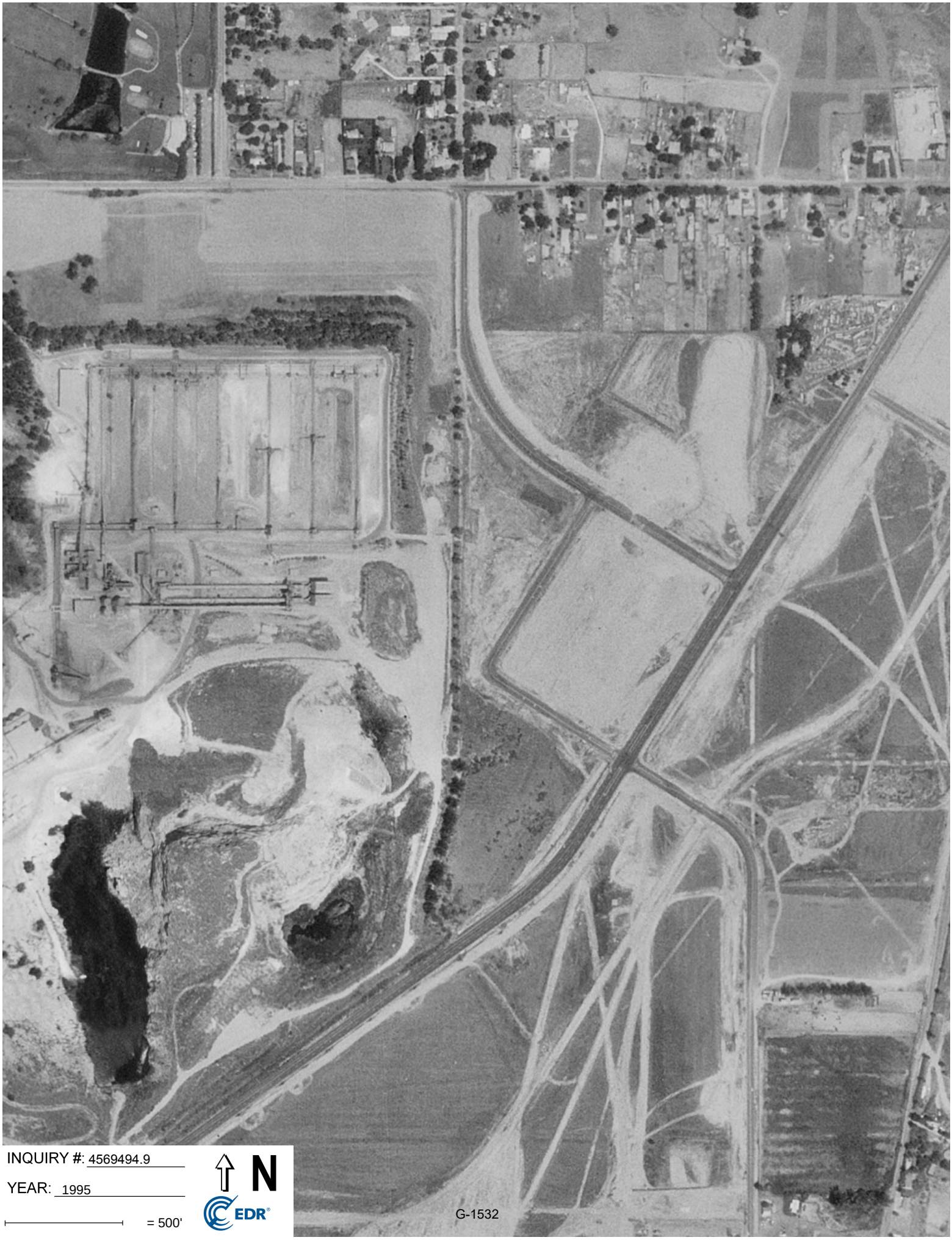
= 500'

N

EDR

G-1530


INQUIRY #: 4569494.9
YEAR: 1995
= 500'
N
EDR
G-1531



INQUIRY #: 4569494.9

YEAR: 1995

= 500'

N

EDR

G-1532



INQUIRY #: 4569494.9

YEAR: 1990

= 700'

N

EDR

G-1533



INQUIRY #: 4569494.9

YEAR: 1985

= 700'

N

EDR

G-1534



INQUIRY #: 4569494.9

YEAR: 1974

= 700'

N

EDR

G-1535



INQUIRY #: 4569494.9

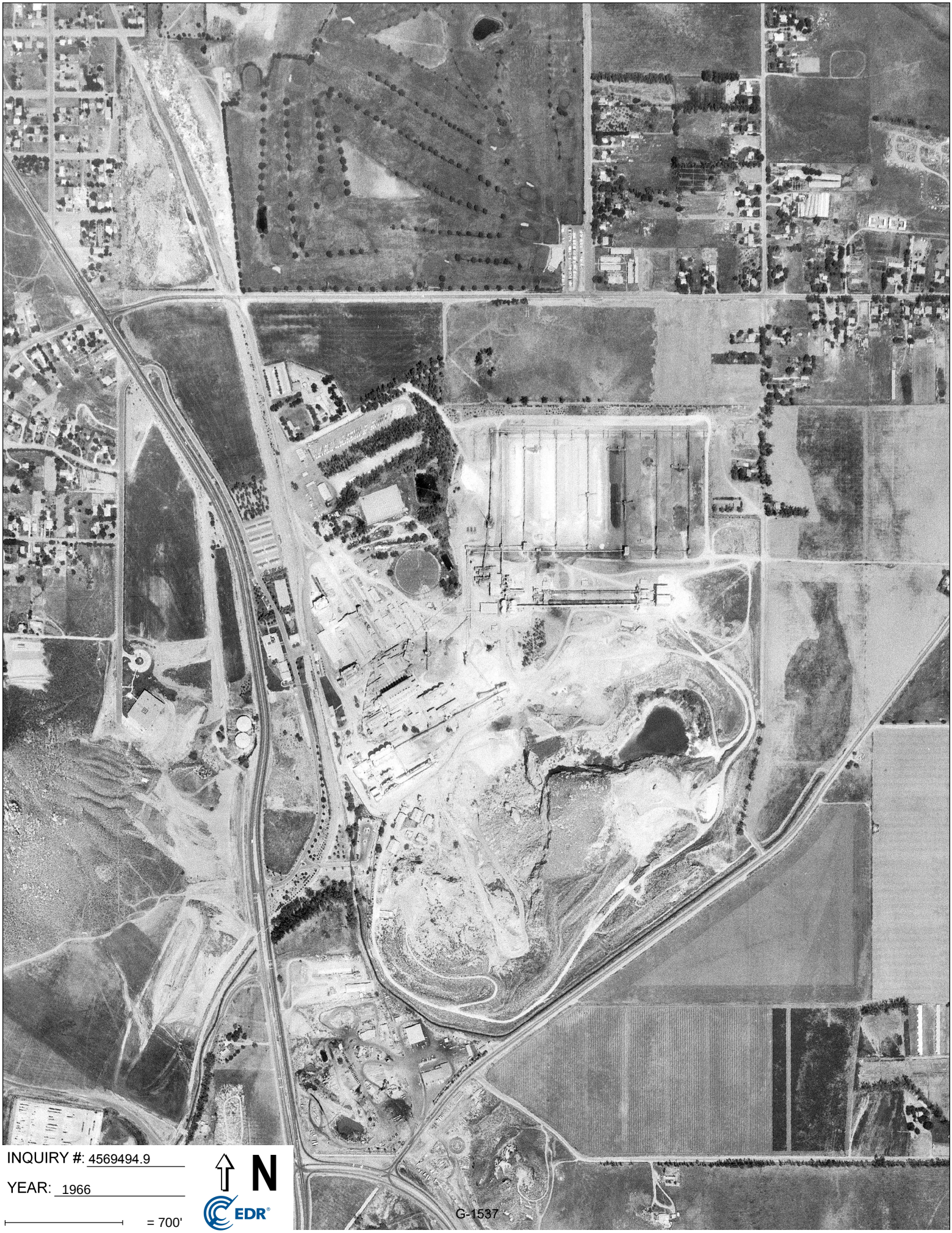
YEAR: 1968

= 700'

N

EDR

G-1536



INQUIRY #: 4569494.9

YEAR: 1966

= 700'

N

EDR

G-1537



INQUIRY #: 4569494.9

YEAR: 1953

= 700'

N

EDR

G-1538



INQUIRY #: 4569494.9

YEAR: 1948

= 700'

N

EDR

G-1539



INQUIRY #: 4569494.9

YEAR: 1938

= 700'

N

EDR

G-1540

Crestmore Site
1500 Rubidoux Boulevard
Riverside, CA 92509

Inquiry Number: 4569494.4
March 21, 2016

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

03/21/16

Site Name:

Crestmore Site
1500 Rubidoux Boulevard
Riverside, CA 92509
EDR Inquiry # 4569494.4

Client Name:

Langan Engineering
32 Executive Park Suite 130
Irvine, CA 92614-0000
Contact: Jose Baron

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Langan Engineering were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# 700045401
Project: Cresmore Site

Coordinates:

Latitude:	34.02651 34° 1' 35" North
Longitude:	-117.3846 -117° 23' 5" West
UTM Zone:	Zone 11 North
UTM X Meters:	464493.96
UTM Y Meters:	3765162.04
Elevation:	0.00' above sea level

Maps Provided:

2012
1980
1973
1967
1954
1953, 1954
1943
1901
1898
1896

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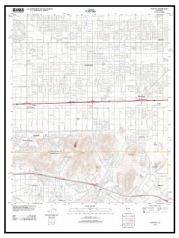
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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

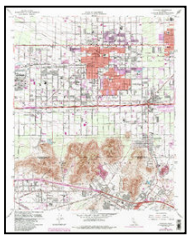


Fontana
2012
7.5-minute, 24000

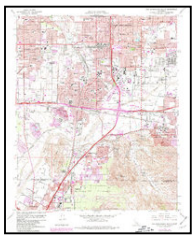


San Bernardino South
2012
7.5-minute, 24000

1980 Source Sheets



Fontana
1980
7.5-minute, 24000
Photo Revised 1980
Aerial Photo Revised 1978

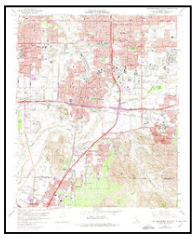


San Bernardino South
1980
7.5-minute, 24000
Photo Revised 1980
Aerial Photo Revised 1979

1973 Source Sheets

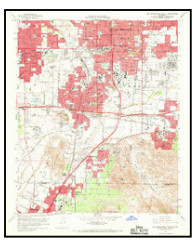


Fontana
1973
7.5-minute, 24000
Photo Revised 1973
Aerial Photo Revised 1973

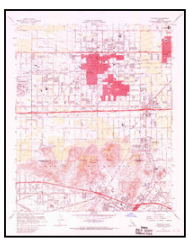


San Bernardino South
1973
7.5-minute, 24000
Photo Revised 1973
Aerial Photo Revised 1973

1967 Source Sheets



San Bernardino South
1967
7.5-minute, 24000
Aerial Photo Revised 1966



Fontana
1967
7.5-minute, 24000
Aerial Photo Revised 1966

Topo Sheet Key

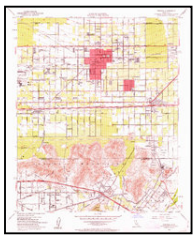
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1954 Source Sheets

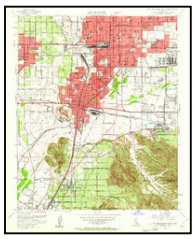


San Bernardino
1954
15-minute, 62500
Aerial Photo Revised 1952

1953, 1954 Source Sheets



Fontana
1953
7.5-minute, 24000
Aerial Photo Revised 1952

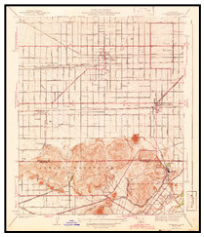


San Bernardino South
1954
7.5-minute, 24000
Aerial Photo Revised 1952

1943 Source Sheets

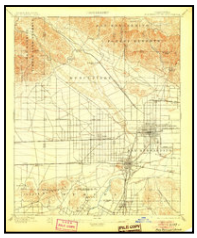


Colton
1943
7.5-minute, 31680



Fontana
1943
7.5-minute, 31680

1901 Source Sheets



San Bernardino
1901
15-minute, 62500

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1898 Source Sheets



San Bernardino
1898
15-minute, 62500

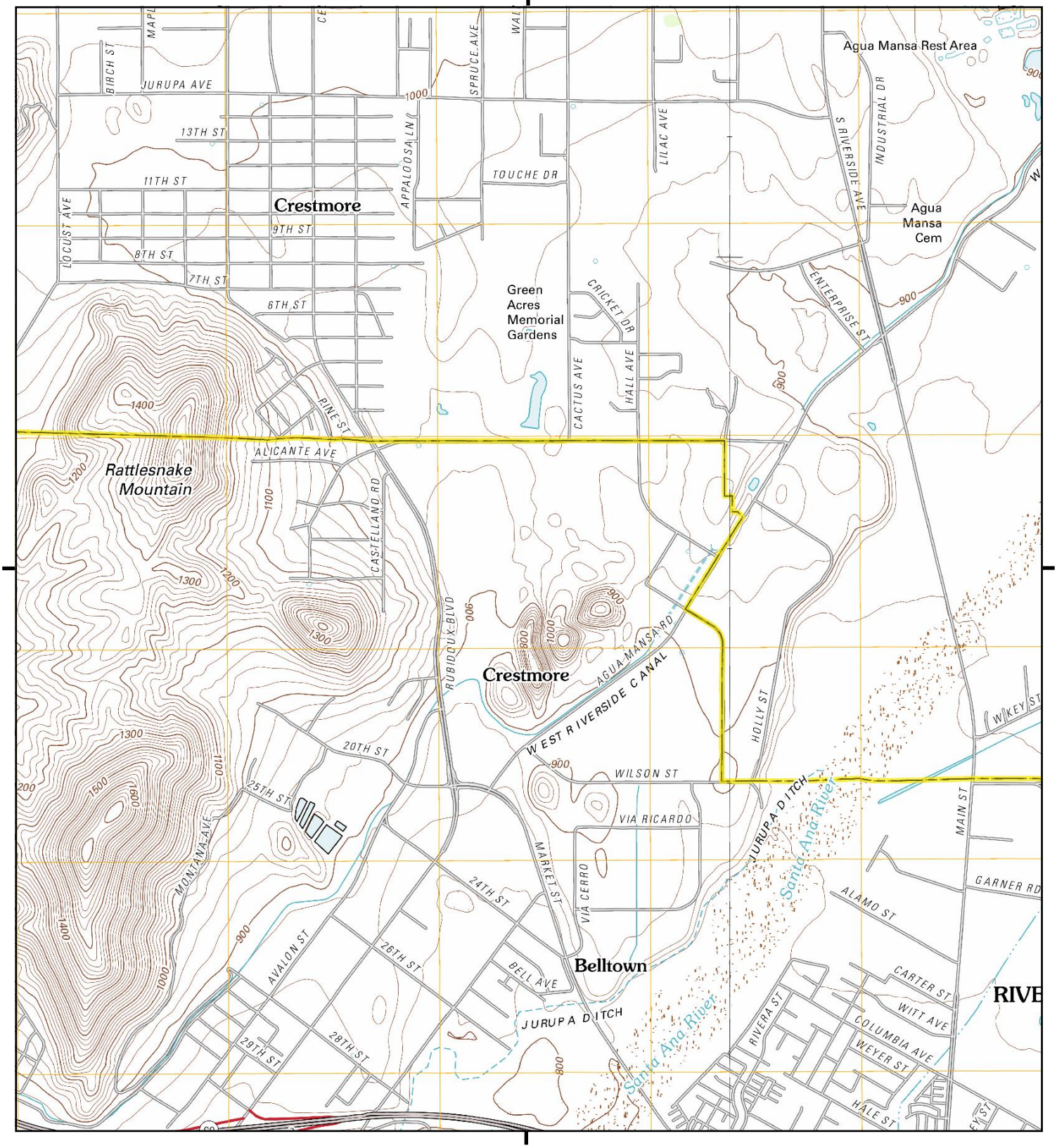
1896 Source Sheets



San Bernardino
1896
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Fontana, 2012, 7.5-minute
NE, San Bernardino South, 2012, 7.5-minute

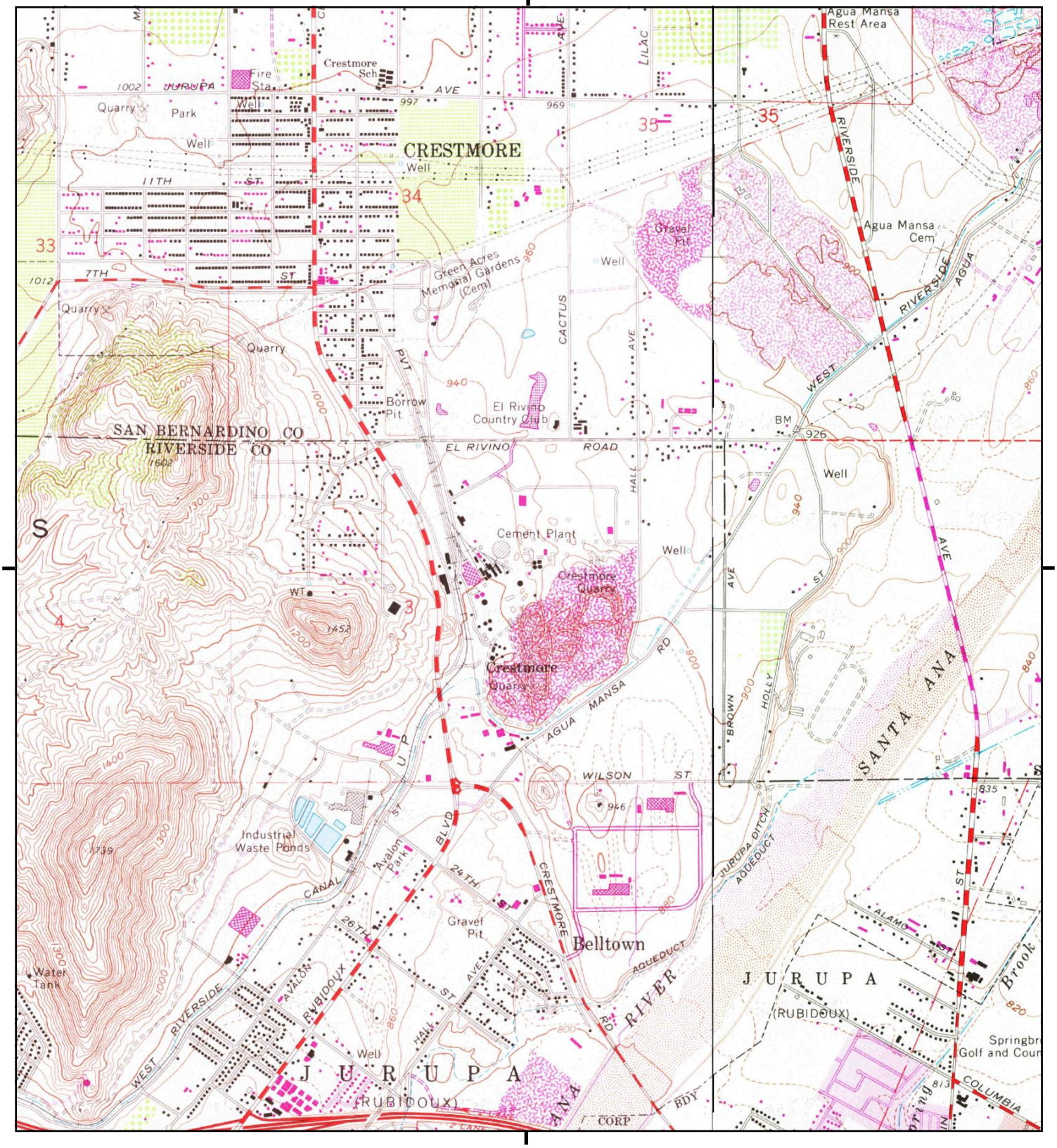
SITE NAME: Crestmore Site
ADDRESS: 1500 Rubidoux Boulevard
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-1546

Historical Topo Map

1980



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Fontana, 1980, 7.5-minute
NE, San Bernardino South, 1980, 7.5-minute

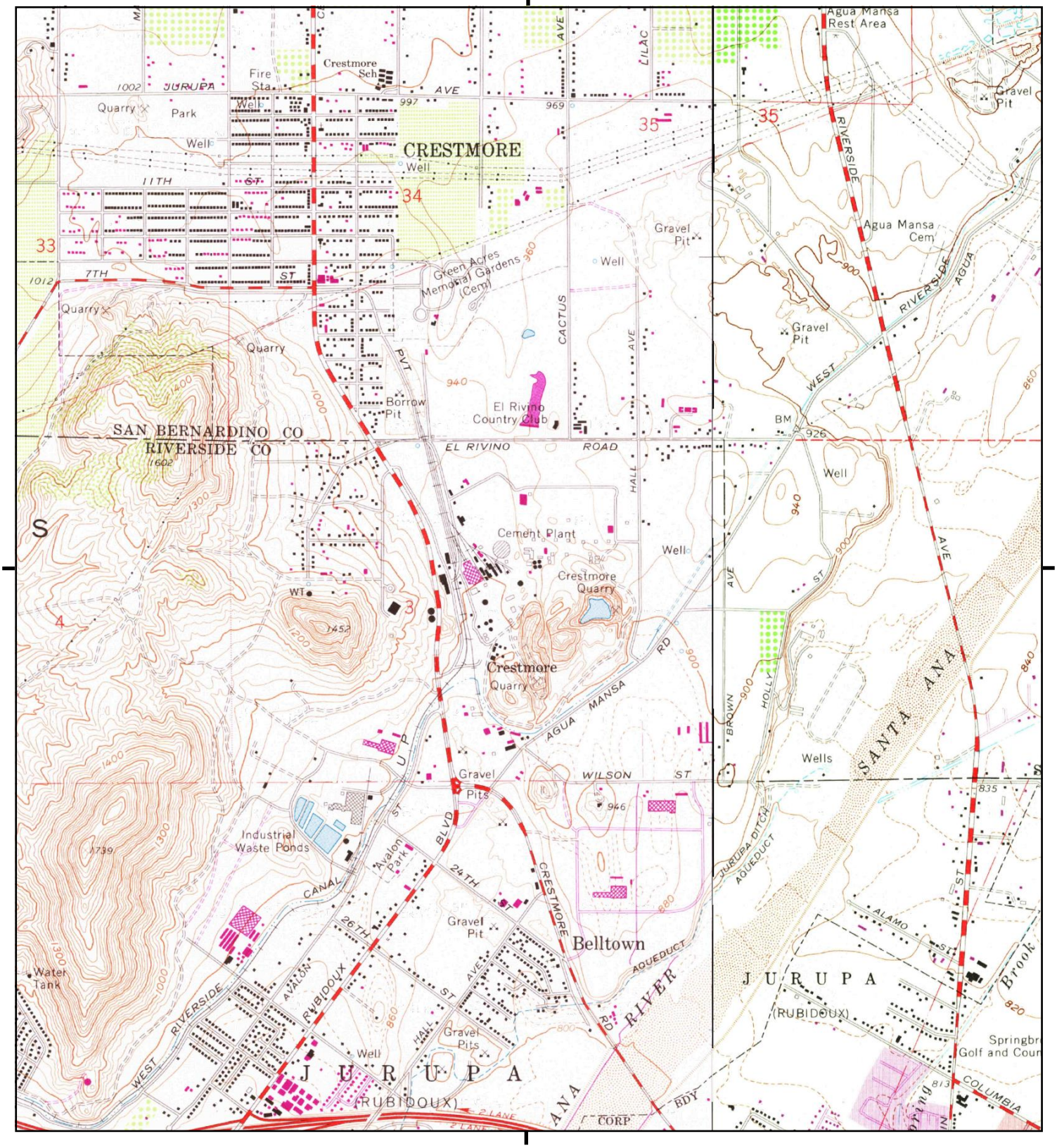
SITE NAME: Crestmore Site
ADDRESS: 1500 Rubidoux Boulevard
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-1547

Historical Topo Map

1973



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Fontana, 1973, 7.5-minute
NE, San Bernardino South, 1973, 7.5-minute

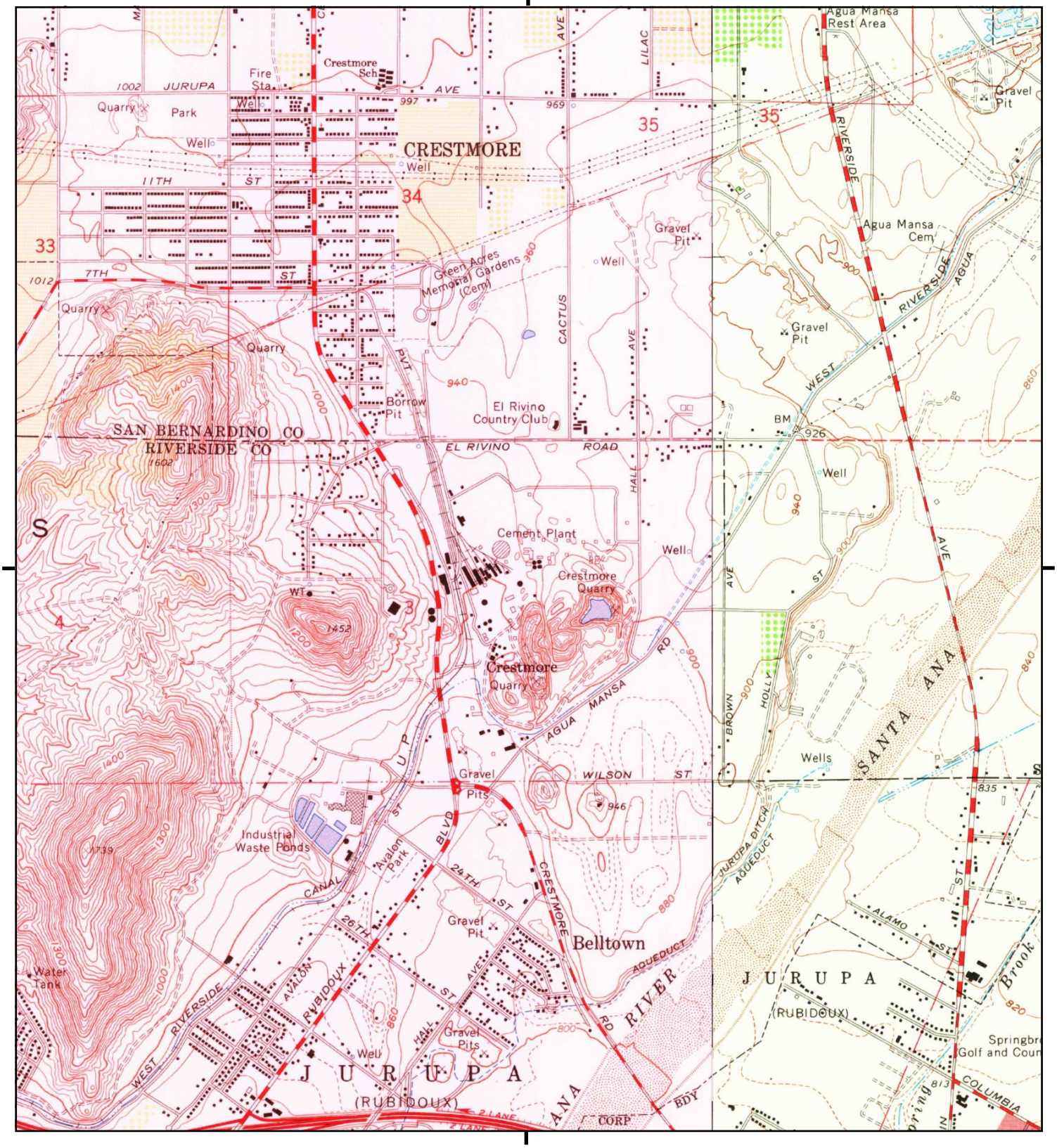
SITE NAME: Crestmore Site
ADDRESS: 1500 Rubidoux Boulevard
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-1548

Historical Topo Map

1967



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Fontana, 1967, 7.5-minute
NE, San Bernardino South, 1967, 7.5-minute

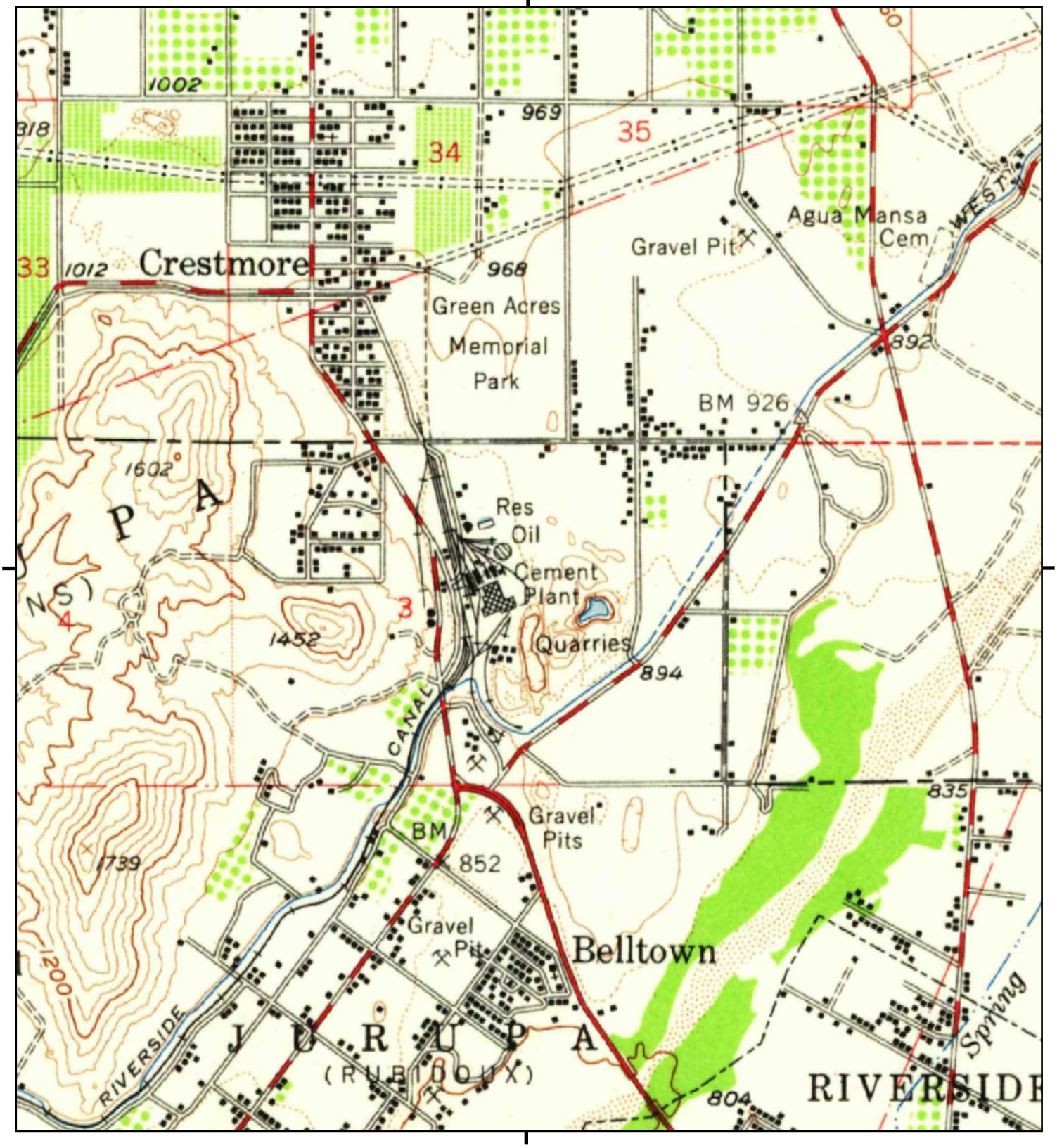
SITE NAME: Crestmore Site
ADDRESS: 1500 Rubidoux Boulevard
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-1549

Historical Topo Map

1954



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, San Bernardino, 1954, 15-minute

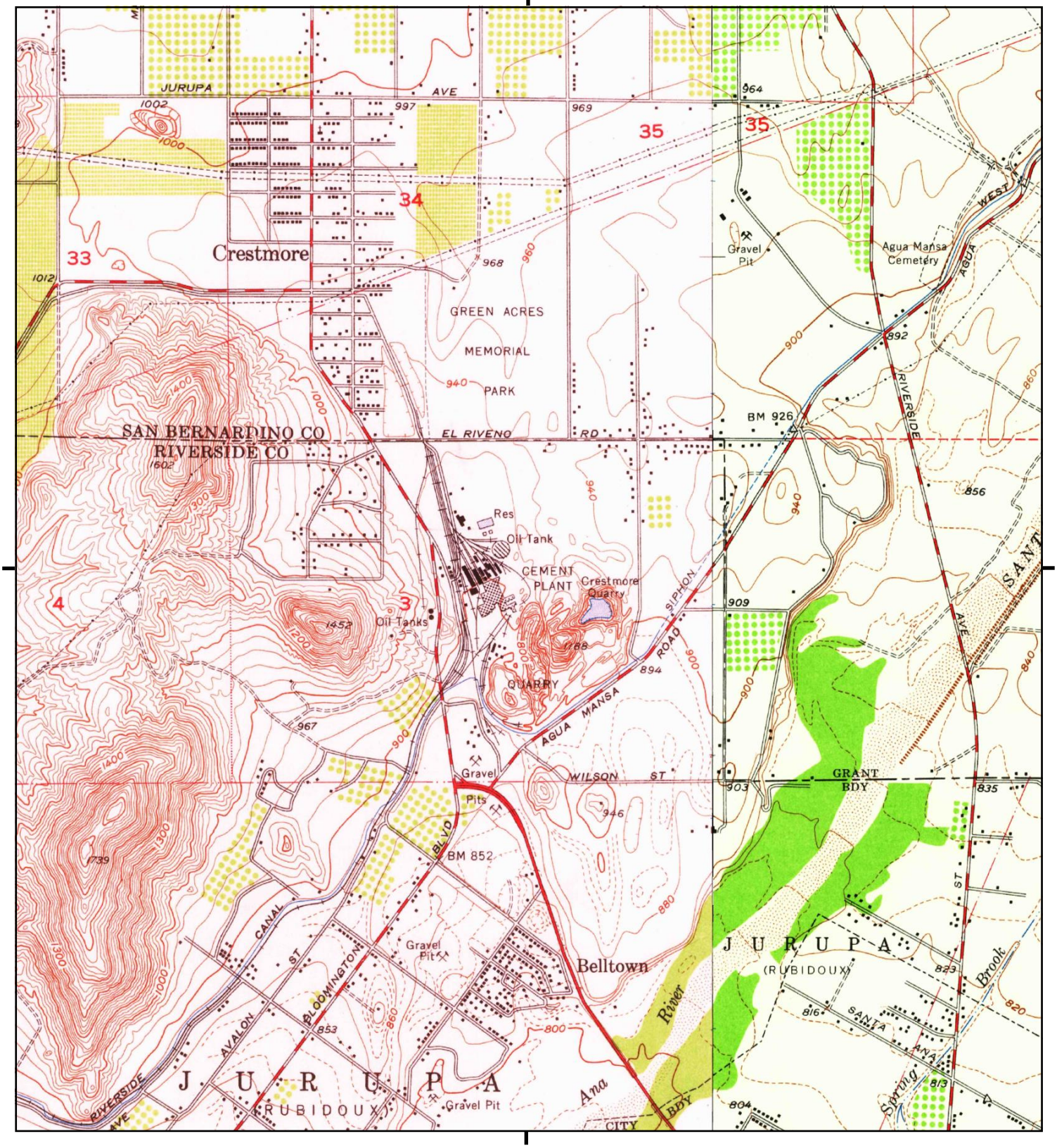
SITE NAME: Crestmore Site
ADDRESS: 1500 Rubidoux Boulevard
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-1550

Historical Topo Map

1953, 1954



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Fontana, 1953, 7.5-minute
NE, San Bernardino South, 1954, 7.5-minute

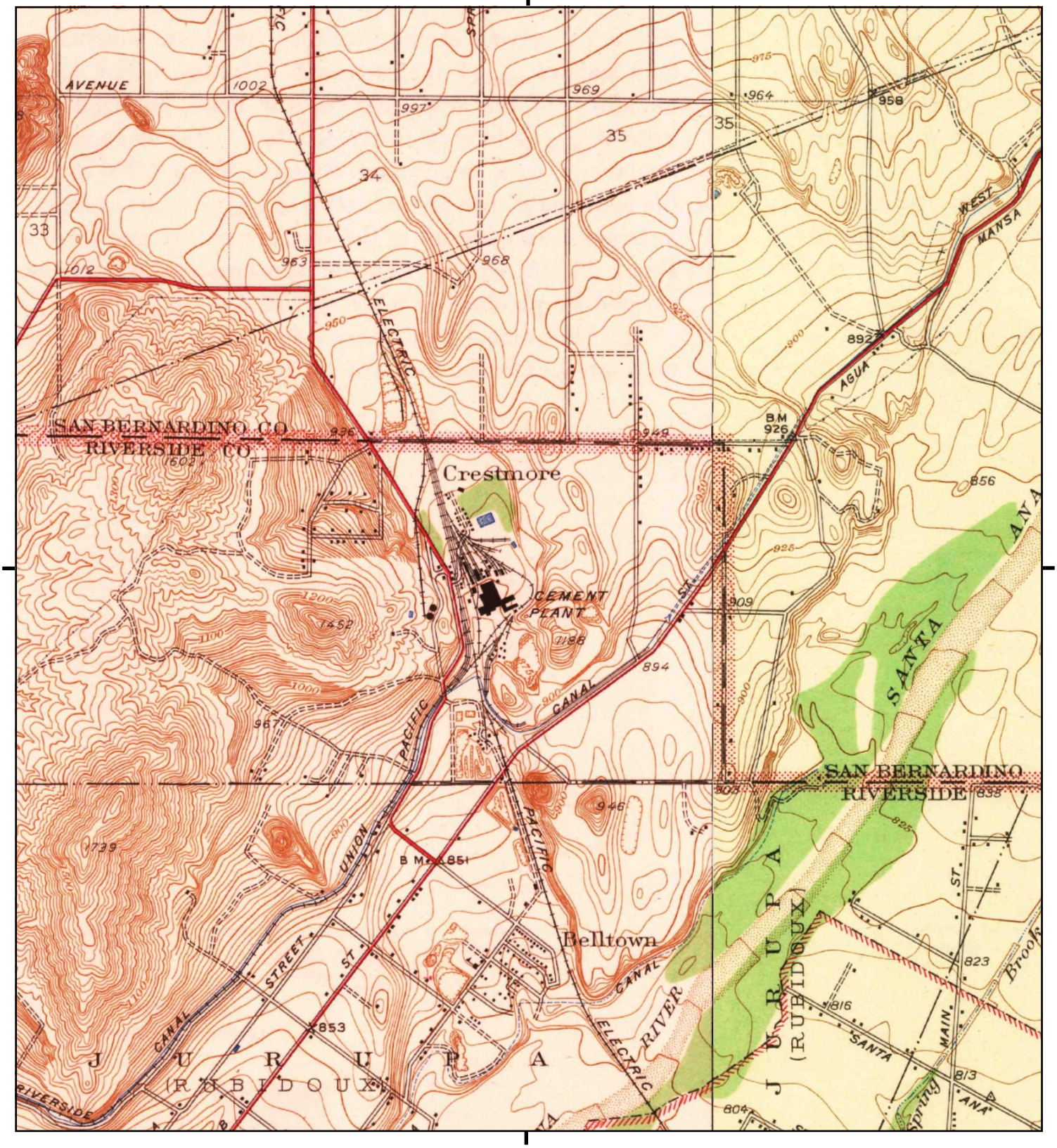
SITE NAME: Crestmore Site
ADDRESS: 1500 Rubidoux Boulevard
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-1551

Historical Topo Map

1943



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Fontana, 1943, 7.5-minute
NE, Colton, 1943, 7.5-minute

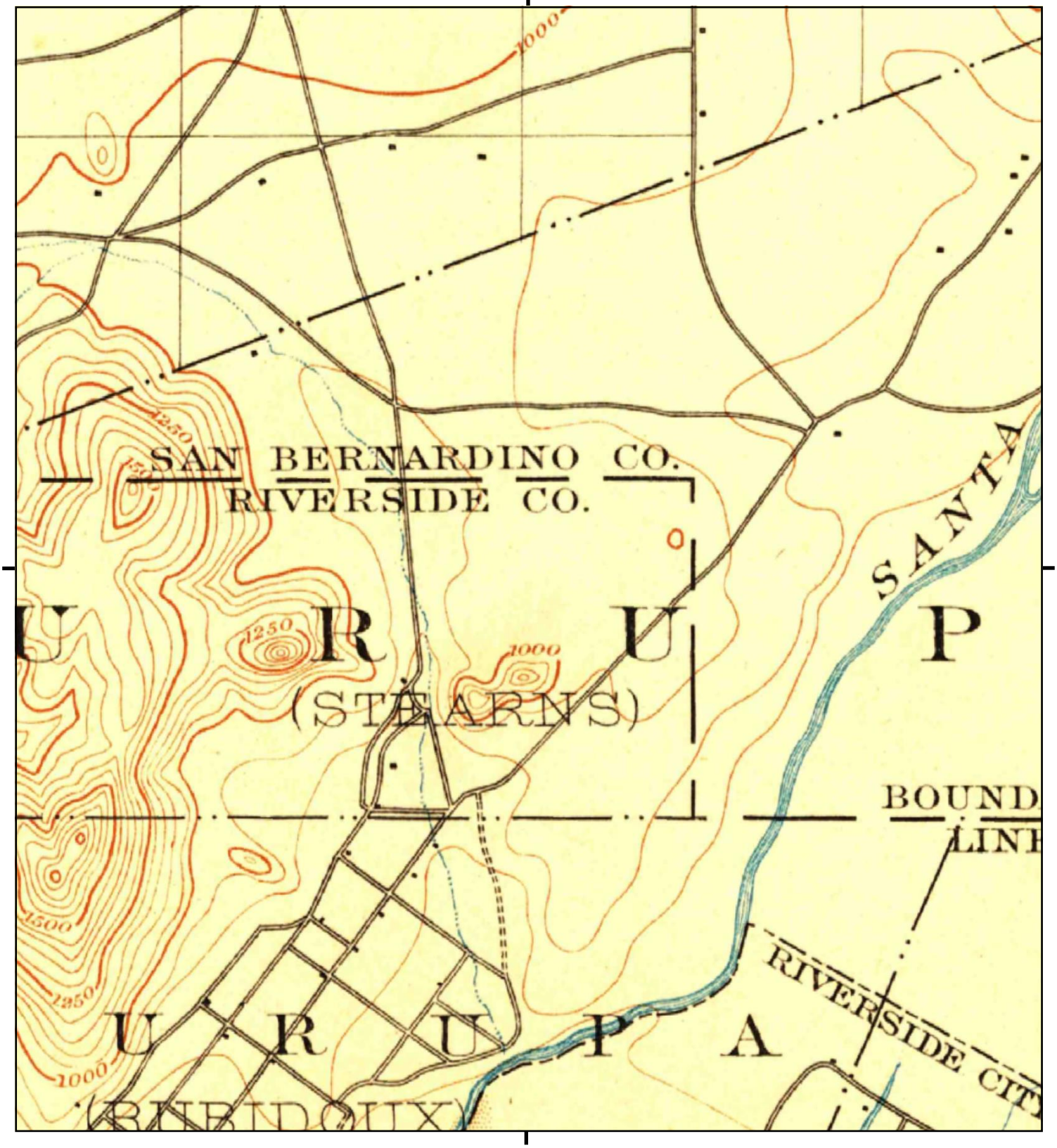
SITE NAME: Crestmore Site
ADDRESS: 1500 Rubidoux Boulevard
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-1552

Historical Topo Map

1901



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, San Bernardino, 1901, 15-minute

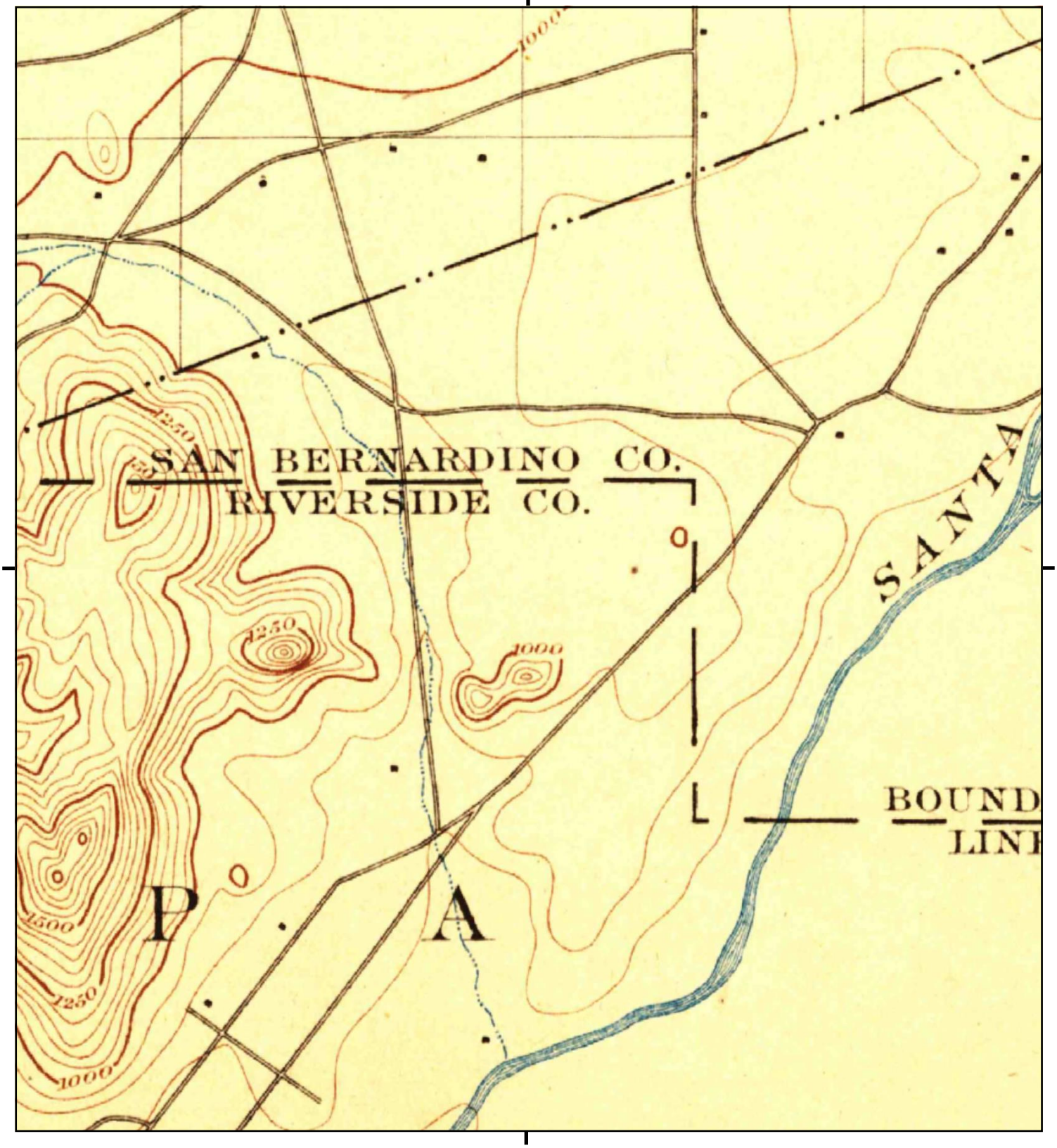
SITE NAME: Crestmore Site
ADDRESS: 1500 Rubidoux Boulevard
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-1553

Historical Topo Map

1898



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, San Bernardino, 1898, 15-minute

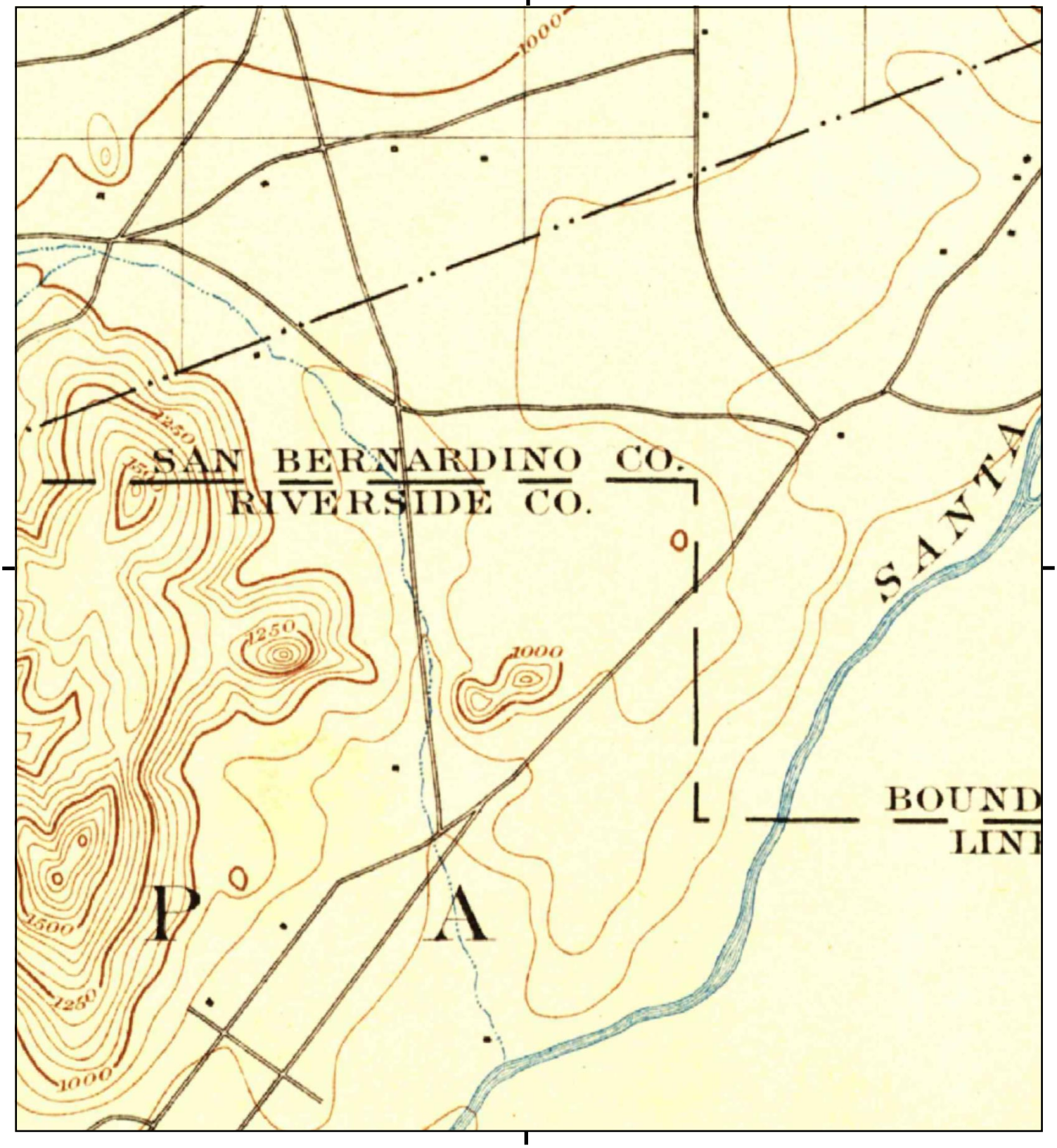
SITE NAME: Crestmore Site
ADDRESS: 1500 Rubidoux Boulevard
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-1554

Historical Topo Map

1896



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, San Bernardino, 1896, 15-minute

SITE NAME: Crestmore Site
ADDRESS: 1500 Rubidoux Boulevard
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-1555

Crestmore Site
1500 Rubidoux Boulevard
Riverside, CA 92509

Inquiry Number: 4569494.5
March 29, 2016

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1921 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2013	Cole Information Services	-	X	X	-
	Cole Information Services	X	X	X	-
2008	Cole Information Services	-	X	X	-
2003	Cole Information Services	-	X	X	-
	Cole Information Services	X	X	X	-
2002	SBC PACIFIC BELL	X	X	X	-
2001	Haines & Company, Inc.	X	X	X	-
1996	Pacific Bell	X	X	X	-
1993	Pacific Bell	-	-	-	-
1990	Pacific Bell	X	X	X	-
1986	Pacific Bell Yellow Pages	-	-	-	-
1981	Pacific Telephone	-	X	X	-
1977	Pacific Telephone	-	-	-	-
1970	Pacific Telephone	X	X	X	-
1967	Luskey Brothers & Co.	-	-	-	-
1966	Luskey Brothers & Company Inc.	-	-	-	-
1961	Luskey Brothers & Co.	-	-	-	-
1960	Luskeys Brothers & Co., Publishers	-	-	-	-
1956	Luskey Brothers & Co.	-	-	-	-
1955	Luskeys Brothers & Co., Publishers	-	X	X	-
1951	Los Angeles Directory Co.	-	X	X	-
1946	Southern California Telephone Company	-	-	-	-
1945	Los Angeles Directory Co.	-	-	-	-
1941	Pacific Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1936	Los Angeles Directory Co.	-	-	-	-
1931	Southern California Telephone Co.	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Kaasen Directory Co.	-	-	-	-
1921	Riverside Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

Address	*Type*	*Findings*
1995 Agua Mansa Road	Client Entered	X
1850 Agua Mansa Road	Client Entered	X
1725 Agua Mansa Road	Client Entered	
705 Columbia Avenue	Client Entered	
1135 Hall Avenue	Client Entered	
12073 Cedar Avenue	Client Entered	
1750 Agua Mansa Road	Client Entered	
1810 Agua Mansa Road	Client Entered	
1737 Production Circle	Client Entered	X

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

1500 Rubidoux Boulevard
Riverside, CA 92509

FINDINGS DETAIL

Target Property research detail.

RUBIDOUX

1500 RUBIDOUX

Year	*Uses*	*Source*
1970	AMERICAN CEMENT CORP See Riverside Cement Co	Pacific Telephone
	Land Paul B	Pacific Telephone
	RIVERSIDE CEMENT CO	Pacific Telephone
	Riverside Cement Transportation Department	Pacific Telephone

RUBIDOUX BLVD

1500 RUBIDOUX BLVD

Year	*Uses*	*Source*
2013	RIVERSIDE CEMENT CO	Cole Information Services
2003	CCF	Cole Information Services
	CRESTMORE DIV	Cole Information Services
	ORO GRANDE FEDERAL CRDT UNION	Cole Information Services
2002	ORO GRANDE FEDERAL CREDIT	SBC PACIFIC BELL
	UNION	SBC PACIFIC BELL
2001	BUDCR 11 DS	Haines & Company, Inc.
	CRESTMOREDIV	Haines & Company, Inc.
	MKTG DEPT TXIRIVRSDCEMENT	Haines & Company, Inc.
	PURCHASING	Haines & Company, Inc.
	TRANSLOADING CCF	Haines & Company, Inc.
	TX IRIV 0 SD CEMENT	Haines & Company, Inc.
1996	CALIFORNIA CATTLE FEEDERS	Pacific Bell
1990	CDK CONTRACTING	Pacific Bell
	CRESTMORE FEDERAL CREDIT UNION	Pacific Bell

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

AGUA MANSA RD

1725 AGUA MANSA RD

Year	Uses	Source
2013	EARTHWORKS SOIL AMENDMENTS	Cole Information Services
2008	EARTHWORKS SOIL AMENDMENTS INC	Cole Information Services

1750 AGUA MANSA RD

Year	Uses	Source
2013	BLUE RHINO	Cole Information Services
2008	BLUE RHINO	Cole Information Services

1850 AGUA MANSA RD

Year	Uses	Source
2013	BURRTEC WASTE INDUSTRIES	Cole Information Services
2008	TRICO DISPOSAL	Cole Information Services
	BURRTEC WASTE INDUSTRIES INC	Cole Information Services
2003	EDCO DISPOSAL CORP	Cole Information Services
	TRI COUNTY RUBBISH INC	Cole Information Services
	BURRTEC WASTE INDUSTRIES	Cole Information Services

1995 AGUA MANSA RD

Year	Uses	Source
2013	SKANSKA USA CIVIL WEST CALIFORNIA DI	Cole Information Services
2008	SKANSKA USA CIVIL WEST OF CA DISTRIC	Cole Information Services
	YEAGER SKANSKA INC	Cole Information Services
2003	YEAGER HOLDINGS INC	Cole Information Services
	EL YEAGER CONSTRUCTION CO	Cole Information Services

Agua Mansa Road

1850 Agua Mansa Road

Year	Uses	Source
2002	TRICO DISPOSAL	SBC PACIFIC BELL

FINDINGS

Year	Uses	Source
2001	TRICO DISPOSAL	Haines & Company, Inc.

1995 Agua Mansa Road

Year	Uses	Source
2002	YEAGER E L CONSTRUCTION	SBC PACIFIC BELL
2001	ELYEAGER	Haines & Company, Inc.
	CONSTRUCTION YEAGEREL	Haines & Company, Inc.
	CONSTRUCTION	Haines & Company, Inc.
1996	YEAGER E L CONSTRUCTION	Pacific Bell
1990	VEAGER E L CONSTRUCTION CO	Pacific Bell
	SOUTHWEST MACHINERY	Pacific Bell
1981	Yeager E L Construction Co	Pacific Telephone
	S C F Corp	Pacific Telephone
1970	E L Yeager Co contrs	Pacific Telephone
	Pac Southwest Construction Co contrs	Pacific Telephone
	Yeager E L Co contrs	Pacific Telephone
	YEAGER E L CONSTRUCTION CO	Pacific Telephone
1955	Yeager E L Paving Co	Luskeys Brothers & Co., Publishers
	genl contrs	Luskeys Brothers & Co., Publishers
	Yeager E L Co	Luskeys Brothers & Co., Publishers
	geni contrs	Luskeys Brothers & Co., Publishers
1951	Yeager E L Co contr	Los Angeles Directory Co.

COLUMBIA AVE

705 COLUMBIA AVE

Year	Uses	Source
2013	MASTERBRAND CABINETS	Cole Information Services

HALL AVE

1135 HALL AVE

Year	Uses	Source
2013	ARAMARK UNIFORM SERVICES RIVERSIDE	Cole Information Services

FINDINGS

PRODUCTION CIR

1737 PRODUCTION CIR

Year	Uses	Source
2013	STAR SIDE DESIGNS	Cole Information Services
	TRS RIVERSIDE	Cole Information Services
2008	STAR SIDE DESIGNS	Cole Information Services
	STARSIDE MEDICAL	Cole Information Services
2003	PIERCES CUSTOM WOOD CRTN	Cole Information Services

Production Circle

1737 Production Circle

Year	Uses	Source
2002	PIERCE S CUSTOM WOOD	SBC PACIFIC BELL
	CREATION	SBC PACIFIC BELL
2001	MACGREGORRobert	Haines & Company, Inc.
	NO LIMIT ENGRG	Haines & Company, Inc.
1996	NO LIMIT ENGINEERING	Pacific Bell

RUBIDOUX

1550 RUBIDOUX

Year	Uses	Source
1970	Crestmore Div Riverside Cement Co	Pacific Telephone

RUBIDOUX BLVD

1400 RUBIDOUX BLVD

Year	Uses	Source
2008	RIVERSIDE CEMENT CO	Cole Information Services
	ORO GRANDE FEDERAL CREDIT UNION	Cole Information Services

1490 RUBIDOUX BLVD

Year	Uses	Source
2001	CDK CONTRACTING	Haines & Company, Inc.
1996	CDK CONTRACTING	Pacific Bell

1520 RUBIDOUX BLVD

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
1500 Rubidoux Boulevard	2008, 1993, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
1135 HALL AVE	2008, 2003, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1135 Hall Avenue	2013, 2008, 2003, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12073 Cedar Avenue	2013, 2008, 2003, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1400 RUBIDOUX BLVD	2013, 2003, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1490 RUBIDOUX BLVD	2013, 2008, 2003, 2002, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1520 RUBIDOUX BLVD	2013, 2008, 2003, 2002, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1550 RUBIDOUX	2013, 2008, 2003, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1725 AGUA MANSA RD	2003, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1725 Agua Mansa Road	2013, 2008, 2003, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1737 PRODUCTION CIR	2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1737 Production Circle	2013, 2008, 2003, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
1750 AGUA MANSA RD	2003, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1750 Agua Mansa Road	2013, 2008, 2003, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1810 Agua Mansa Road	2013, 2008, 2003, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1850 AGUA MANSA RD	2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1850 Agua Mansa Road	2013, 2008, 2003, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1995 AGUA MANSA RD	2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1995 Agua Mansa Road	2013, 2008, 2003, 1993, 1986, 1977, 1967, 1966, 1961, 1960, 1956, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
705 COLUMBIA AVE	2008, 2003, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
705 Columbia Avenue	2013, 2008, 2003, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

APPENDIX F

Field Data-Logs and Groundwater Monitoring Sheets

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: Crestmore
Location:
Project No.:
Weather: Sunny (Windy)
Date: 11-18-16

Water Quality Meter Make/Model: YSI 556 MPS
Water Quality Meter Serial #: 6310
Field Personnel:
Signature: M. Thomas

WELL: MW-3

89.70 (RP)

Well ID: MW-3
Well Permit #:
Well Depth: ~~84.59~~ ft BTOC
Well Diameter: 4 inches
Screened/Open Interval: 80 to 90 ft below TOC
(RP) 87.70
Measured TD = ~89.70

PID/FID Readings (ppm)
Background: 0.0
Beneath Inner Cap: 0.0

Pump Intake Depth: ~~74-82~~ ft below TOC
Depth to Water Before Pump Installation: ~~85.5~~ 84.39 (RP) ft below TOC

TIME	PURGING	SAMPLING	pH (standard units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (µS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (°C) READING	TEMPERATURE CHANGE*	PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
1200	X		7.46		1.069		-178.7		5.44		11.4		22.03		600	84.4	0	
1205	X		7.49		1.078		-180.2		5.46		9.78		22.43		600	84.41	0.8	
1210	X		7.48		1.086		-181.0		5.46		7.7		22.76		600	84.41	1.6	
1215	X		7.49		1.089		-180.6		5.55		6.55		22.80		600	84.41	2.4	
1220	X		7.50		1.086		-179.7		6.05		5.72		22.55		600	84.41	3.2	
1225	X		7.47		1.093		-179.7		5.53		~~5.69~~	5.63	23.02		600	84.41	4.0	
1230	X		7.47		1.096		-179.0		5.8		3.74		23.23		400	84.41	4.5	
1235	X		7.42		1.098		-179.5		5.65		3.41		23.25		400	84.41	5	
1240	X		7.49		1.100		-178.8		5.74		2.84		23.39		400	84.41	5.5	
1245		X																

11-18-16

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: Crestmore
Location: Riverside, Ca
Project No.:
Weather: Sunny/Windy
Date: 11-18-16

Water Quality Meter Make/Model: YSI 556 MPS
Water Quality Meter Serial #: 6310
Field Personnel: M. Thomas + R. Prohoroff
Signature:

WELL: MW-4

Well ID: MW-4 **Well Depth:** 65.2 ft **Screened/Open Interval:** 45 to 65 ft below TOC
Well Permit #: **Well Diameter:** 4 inches

PID/FID Readings (ppm)
Background: 0.0 @0720
Beneath Inner Cap: 9.9

Pump Intake Depth: 55.0 ft below TOC
Depth to Water Before Pump Installation: 44.27 ft below TOC

TIME	PURGING	SAMPLING	pH (standard units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (µS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (°C) READING	TEMPERATURE CHANGE*	PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
0744																43.52		After pump install
0805	X		7.18		0.936		-97.1		3.22		130		22.72		400	43.65	0	
0810	X		7.29		0.945		-107.1		3.14		128		23.15		300	43.8	0.5	
0815	X		7.30		0.954		-113.1		3.13		93.9		23.45		300	43.81	0.9	
0820	X		7.35		0.958		-114.8		3.18		128		23.50		300	43.8	1.3	
0825	X		7.33		0.964		-122.9		3.06		130		23.76		300	43.82	1.7	
0830	X		7.36		0.965		-124.1		2.96		72.1		23.80		300	43.82	2.1	
0835	X		7.35		0.963		-130.1		3.07		73.8		23.76		300	43.82	2.5	
0840	X		7.35		0.965		-131.8		3.03		43.3		23.87		300	43.82	2.9	
0845	X		7.36		0.968		-131.3		3.02		59.2		23.98		300	43.82	3.3	
0850	X		7.37		0.966		-132.7		3.02		42.5		23.89		300	43.8	3.7	
0855	X		7.37		0.968		-133.7		3.0		42.5		24.03		300	43.8	4.1	
0900	X		7.38		0.971		-135.6		2.95		47.1		24.22		300	43.8	4.5	
0905	X				0.972		-138.8		2.96		59.2		24.27		300	43.8	4.9	

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: Crestmore
Location: Riverside, Ca
Project No.:
Weather: Sunny/ Windy
Date: 11-18-16

Water Quality Meter Make/Model:
Water Quality Meter Serial #:
Field Personnel:
Signature:

WELL: MW-4

Well ID: **Well Depth:** ft **Screened/Open Interval:** to ft below TOC
Well Permit #: **Well Diameter:** inches

PID/FID Readings (ppm)
Background:
Beneath Inner Cap:

Pump Intake Depth: ft below TOC
Depth to Water Before Pump Installation: ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
0910	X		7.39		0.969		-143.9		2.95		26.5		24.18		400	43.88	5.4	
0915	X		7.41		0.969		-143.5		2.94		33.5		24.32		400	43.9	5.9	
0920	X		7.36		0.970		-144.6		2.96		27.3		24.31		400	43.9	6.4	
0925	X		7.40		0.970		-145.0		2.98		25.2		24.35		400	43.9	6.9	
0930	X		7.40		0.971		-150.1		2.9		29.6		24.46		400	43.78	7.4	
0935	X		7.41		0.967		-150.3		3.29		38.8		24.27		600	43.96	8.2	
0940	X		7.41		0.968		-148.1		3.09		26.4		24.33		600	44.03	9.0	
0945	X		7.42		0.966		-148.2		3.14		17		24.32		600	44.05	9.8	
0950	X		7.43		0.956		-148.8		3.15		14.3		24.31		600	44.06	10.6	
0955	X		7.41		0.965		-149.7		3.10		13.4		24.31		600	44.05	11.4	
1000	X		7.40		0.965		-149.1		3.13		13.4		24.41		600	44.05	12.2	
1005	X		7.41		0.968		-149.7		3.12		12.61		24.38		600	44.05	13.0	
1010	X		7.43		0.968		-149.8		3.15		2.91		24.45		600	44.05	13.8	
1015	X		7.42		0.970		-148.8		3.14		10.32		24.53		600	44.05	14.6	

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

600 = 3000 mL = .8 gallons

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: Crestmore
Location: Riverside, Ca
Project No.:
Weather: Sunny/Windy
Date: 11-18-16

Water Quality Meter Make/Model:
Water Quality Meter Serial #:
Field Personnel:
Signature:

WELL: MW-4

Well ID: **Well Depth:** ft **Screened/Open Interval:** to ft below TOC
Well Permit #: **Well Diameter:** inches

PID/FID Readings (ppm)
Background:
Beneath Inner Cap:

Pump Intake Depth: ft below TOC
Depth to Water Before Pump Installation: ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (µS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
1020		X	7.43		0.970		-150.6		3.06		12.4		24.92		200mL	23.9	N/A	Sampling
														11-18-16				

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: Riverside Cement
Location:
Project No.: 721010301
Weather: Overcast 68° F
Date: 12-12-16

Water Quality Meter Make/Model: YSI 650
Water Quality Meter Serial #: 9003/1591
Field Personnel: R.P., M.T.
Signature:

WELL: MW-3

Well ID: MW-3 **Well Depth:** 90.12 ft **Screened/Open Interval:** _____ to 90 ft below TOC
Well Permit #: _____ **Well Diameter:** 4" inches

PID/FID Readings (ppm)
Background: 0.0
Beneath Inner Cap: 0.0

Pump Intake Depth: 88.0 ft below TOC
Depth to Water Before Pump Installation: ~~84.21~~ ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (µS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
0920					~~1.09~~		~~58.2~~								~~5~~	84.19		Pre-Purge
0955	X		7.18		1.097		58.2		3.43		off-scale		20.66		500	84.19		Purging
1030	X		7.18	0	1.131	-0.034	82.0	+23.8	2.68	~~0.75~~ 0.07	83.4		21.79	-1.13	500	84.2	85gal	
1035	X		7.17	0.01	1.126	0.005	87.6	-5.6	2.61	0.07	102.3	-18.9	22.13	-0.34	500	84.2	9.1	
1040	X		7.16	0.01	1.142	-0.016	100.1	-23.5	2.5	0.11	86.5	15.8	22.22	-0.09	600	84.2	~~9.8~~ 10.0	
1045	X		7.15	+0.01	1.140	0.002	111.8	-11.7	2.33	0.17	83.5	3.0	22.18	0.04	500	84.2	10.6	
1050	X		7.14	0.01	1.146	-0.006	122.1	-15.3	2.41	-0.08	63.7	18.8	22.48	-0.30	1000	84.2	11.8	
1055	X		7.13	0.01	1.205	-0.059	141.3	+14.2	2.28	0.13	78.6	-14.9	22.37	0.11	1000	84.2	13.0	
1100	X		7.15	-0.02	1.133	+0.072	141.2	0.1	2.16	0.12	56.5	22.1	21.89	0.48	800	84.2	14	
1105	X		7.16	-0.01	1.133	0	133.7	7.5	2.17	-0.01	44.8	11.7	21.92	-0.03	1000	84.2	15.6	
1110	X		7.16	0	1.203	-0.07	128.3	5.4	2.13	0.04	46	-1.2	21.97	~~0~~ -0.05	700	84.2	16.5	
1115	X		7.16	0	1.133	0.07	123.5	4.8	2.03	0.10	49.5	-3.5	21.98	-0.01	800	84.16	17.5	
1120	X		7.16	0	1.136	-0.003	119.8	3.7	1.99	0.04	47.3	2.2	22.06	-0.08	1000	84.17	19.1	

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: _____ **Water Quality Meter Make/Model:** _____ **WELL:** MW-3

Location: _____ **Water Quality Meter Serial #:** _____

Project No.: _____ **Field Personnel:** _____

Weather: _____ **Signature:** _____

Date: _____

Well ID: MW-3 **Well Depth:** _____ ft **Screened/Open Interval:** _____ to _____ ft below TOC

Well Permit #: _____ **Well Diameter:** _____ inches

PID/FID Readings (ppm)

Background: _____ **Pump Intake Depth:** _____ ft below TOC

Beneath Inner Cap: _____ **Depth to Water Before Pump Installation:** _____ ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
1125	X		7.17		1.123		116.01		2.95		48.4		22.0		1000	84.17	19.6	
1130	X		7.17		1.133		108.6		1.93		67		21.96		1000	84.16	+21.2	
1205	X		7.18		1.145		90.6		1.58		63.4		22.46		750	84.13	25	
1210	X		7.17		1.146		92.0		1.57		~~98.2~~		22.56		500	84.17	26	
1215	X		7.17	±0	1.145	<1%	96.1	±4.1	1.52	3%	41.5		22.49	<1%	500	84.13	27.5	
1220	X		7.16	±0.01	1.146	<1%	104.0	±7.9	1.49	2%	34.1		22.43	<1%	1100	84.15	28	
1225	X		7.15	±0.01	1.142	<1%	114.0	±10	1.46	2%	30.0		2324	<1%	500	84.14	29	
1230	X		7.14	±0.01	1.143	<1%	125.9	±11.9	1.44	1%	34.8		22.22	<1%	1000	84.14	29.5	
1235	X		7.13	±0.01	1.140	<1%	132.4	±6.5	1.40	3%	29.2		22.25	<1%	1000	84.14	32.5	
1240	X		7.13	±0	1.134	<1%	138.5	±6.1	1.38	1%	29.3		22.02	<1%	800	84.14	33	
1245	X		7.13	±0	1.137	<1%	137.7	±0.8	1.38	0%	29.7		22.10	<1%	800	84.13	33.5	
1250	X		7.12	±0.01	1.139	1%	140.9	±3.2	1.33	4%	30.0		22.13	<1%	700	84.15	35	
1255	X		7.12	±0	1.138	<1%	144.4	±3.5	1.29	3%	29.9		22.09	<1%	750	84.12	35.5	
1300	X		7.11		1.136		150.0		1.26				22.08		1000	84.12	36	

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: _____ **Water Quality Meter Make/Model:** _____ **WELL:** MW-3

Location: _____ **Water Quality Meter Serial #:** _____

Project No.: _____ **Field Personnel:** _____

Weather: _____ **Signature:** _____

Date: _____

Well ID: _____ **Well Depth:** _____ ft **Screened/Open Interval:** _____ to _____ ft below TOC

Well Permit #: _____ **Well Diameter:** _____ inches

PID/FID Readings (ppm)

Background: _____ **Pump Intake Depth:** _____ ft below TOC

Beneath Inner Cap: _____ **Depth to Water Before Pump Installation:** _____ ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (µS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
1315	X		7.21		1.140		138.6		1.18		79.4		22.3		700	84.14	37	
1320	X		7.15		1.145		145.3		1.14		53.2		22.47		675	84.15	38.5	
1325	X		7.15	±0	1.143	<1%	144.3	±1.0	1.11	3%	44.8		22.32	<1%	500	84.14	39	
1330	X		7.16	±0.01	1.143	0%	131.9	±12.4	1.07	4%	38.7		22.37	<1%	500	84.14	40	
1335	X		7.16	±0	1.144	<1%	123.4	±8.5	1.05	2%	27.6		22.52	<1%	500	84.15	41	
1340	X		7.17	±0.01	1.147	<1%	114.1	±9.3	1.01	4%	20.3		22.61	<1%	600	84.14	41.5	
1345	X		7.17	±0	1.147	0%	108.1	±6.0	1.01	0%	[illegible]	15.2	22.56	<1%	400	84.14	42	
1350	X		7.17	±0	1.148	<1%	106.4	±1.7	0.98	3%	13.2		22.63	<1%	600	84.14	42.5	
1355	X		7.17	±0	1.148	0%	103.4	±3.0	0.95	3%	9.15		22.65	<1%	900	84.14	44	
1400	X		7.17	±0	1.146	<1%	101.9	±1.5	0.93	2%	7.02		22.53	<1%	800	84.14	44.5	
1405	X		7.17	±0	1.142	<1%	101.8	±0.1	0.91	2%	6.76		22.38	<1%	650	84.14	45	
1410	X		7.17	±0	1.142	0%	101.2	±0.6	0.85	7%	5.31		22.38	0%	400	84.15	45.5	
1415	X		7.17	±0	1.147	<1%	99.0	±2.2	0.88	4%	5.58		22.63		700	84.15	46	
1420	X	X	7.17		1.144		96.1		0.87		4.14		22.39		500	84.15		

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

1000264 pg.1

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: Riverside Cement
Location:
Project No.: ~~70~~ 721010301
Weather: Overcast 68° F
Date: 12-12-16

Water Quality Meter Make/Model: YSI 1650
Water Quality Meter Serial #: 9003/1591
Field Personnel: M.T., R.P.
Signature:

WELL: MW-4

Well ID: MW-4
Well Permit #:
Well Depth: 65.49 ft TOC (66.23 Below Vault)
Well Diameter: 4.0 inches
Screened/Open Interval: ~~65.1~~ 66.23 to 65.49 ft below TOC

PID/FID Readings (ppm)
Background: 0.0
Beneath Inner Cap: 1.0

Pump Intake Depth: 55.0 ft below TOC
Depth to Water Before Pump Installation: 44.40 ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (µS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
1540	X		7.24		0.96		67.3		0.77		10.4		22.4		400	45.04	~~460~~ 0.5	
1545	X		7.18	.06	0.963	.003	73.9	+6.6	0.71	0.06	16.0	-5.6	22.7	-0.3	500	44.73	1.1	
1550	X		7.16	.02	0.968	.005	75.9	-2.0	0.66	.05	16.3	-0.3	22.93	0.23	800	44.27	2.1	
1555	X		7.15	.01	0.969	.001	75.5	0.4	0.62	0.04	11.03	5.97	22.98	-0.05	700	44.3	2.9	
1600	X		7.14	0.01	0.969	0	75.7	-0.2	0.57	0.05	9.61	1.42	22.98	0	700	44.33	3.8	
1605	X		7.14	0.01	0.968	0.001	74.1	1.6	0.52	0.05	9.35	0.26	22.96	.02	700	44.4	4.7	
1610	X		7.13	0.01	0.968	0	73.5	6.6	0.50	0.02	5.48	4.13	23.01	-.05	500	44.2	5.3	
1615	X		7.14	-0.01	0.970	-0.002	73.2	0.3	0.50	0	4.83	0.65	23.06	-0.05	500	44.25	5.9	
1620	X		7.14	0	0.970	0	73.1	0.1	0.50	0	5.29	-0.36	23.06	0	500	44.21	6.5	
1625	X		7.14	0	0.970	0	72.6	0.5	0.47	0.03	5.6	-0.31	23.01	0.05	~~350~~	44.1	~~17.~~ 6.9	
1630	X		7.14	0	0.970	0	72.3	0.3	0.45	0.02	4.7	0.6	23.06	0.05	350	44.0	~~7.5~~ MT	
1635	X		7.14	0	0.970	0	74.7	1.6	0.43	0.02	6.5	-2.2	23.14		500	44.02	8.1	
1645	X	X	7.14	0	0.970	0	74.1	0.6	0.44	0.02	5.69		23.1		500	44.	8.7	
1655	~~X~~	~~X~~																

COMMENTS: MT

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: Riverside Cement
Location:
Project No.: 721010301
Weather: Sunny ~ 80°
Date: 12-14-16

Water Quality Meter Make/Model: YSI-650
Water Quality Meter Serial #: 9003/1591
Field Personnel: M.T.
Signature:

WELL: State Well-1

Well ID: State Well-1 **Well Depth:** 173.4 ft Top of Vault **Screened/Open Interval:** _____ to _____ ft below TOC
Well Permit #: _____ **Well Diameter:** _____ inches

PID/FID Readings (ppm)
Background: 0.0
Beneath Inner Cap: 0.0

Pump Intake Depth: ~~137.3~~ 160.6' ft below ~~TOC~~ Top of vault
Depth to Water Before Pump Installation: 137.1 ft below ~~TOC~~ Top of vault

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (µS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
~~1045~~ 1040	X		7.4		0.919		146.7		3.84		24.6		20.46		500	137.2	~~0.6~~	
~~1050~~ 1045	X		7.32	.08	0.917	.007	125.7	21	3.75	0.09	27.7	-3.1	20.52	-.06	500	137.2	0.6	
1050	X		7.26	.06	0.919	-0.007	100.9	24.8	3.53	0.48	30.4	-3.3	21.10	0.42	500	137.2	1.2	
1055	X		7.26	0	0.921	0.002	99.7	1.2	3.55	-.02	28.7	1.7	21.26	-0.16	400	137.2	1.7	
1100	X		7.25	0.01	0.923	0.002	99.9	-.2	3.49	.06	29.2	-0.5	21.35	-0.09	400	137.2	2.3	
1105	X		7.26	-0.01	0.922	0.001	98.4	1.5	3.47	.02	28.2	1.0	21.39	-0.04	300	137.2	2.7	
1110	X		7.26	0	0.923	-0.001	99.5	-0.9	3.56	-.09	27.0	1.2	21.48	-0.09	300	137.2	3	
1115	X		7.26	0	0.922	0.001	100.3	-0.8	3.4	0.16	27.1	-0.1	21.44	0.04	400	137.2	~~4~~ 3.4	
1120	X		7.25	0.01	0.915	0.007	105.3	0	3.5	-0.1	24.2	2.9	21.00	0.44	500	137.2	4	
1125	X		7.25	0	0.912	0.003	110.3	-5.0	3.63	-0.13	24.0	0.2	21.36	-0.36	500	137.2	4.6	
1130	X		7.25	0	0.916	-0.004	112.7	-2.4	3.59	-0.04	24.0	0	21.46	-0.1	400	137.2	5	
1135	X		7.24	0.01	0.918	-0.002	121.8	9.1	3.62	-0.03	23.6	.04	21.43	0.03	400	137.2	5.4	
1140	X		7.24	0	0.914	0.004	123.8	-2.0	3.7	-0.08	23.2	.04	21.31	0.12	500	137.2	6	
1145	X		7.25	-0.01	0.907	0.007	123.8	0	3.7	0	22.6	.08	21.18	0.13	500	137.2	6.6	

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: _____ **Water Quality Meter Make/Model:** _____ **WELL:** Stale well - 1

Location: _____ **Water Quality Meter Serial #:** _____

Project No.: _____ **Field Personnel:** _____

Weather: _____ **Signature:** _____

Date: _____

Well ID: _____ **Well Depth:** _____ ft **Screened/Open Interval:** _____ to _____ ft below TOC

Well Permit #: _____ **Well Diameter:** _____ inches

PID/FID Readings (ppm)

Background: _____ **Pump Intake Depth:** _____ ft below TOC

Beneath Inner Cap: _____ **Depth to Water Before Pump Installation:** _____ ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (µS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
1130	X		7.24		0.913		126.4		3.84		22.0		21.47		400	137.15	7	
1135	X		7.25	-0.1	0.918	-0.005	127.8	-0.14	3.78	0.16	~~0.6~~ 21.8		21.49	-0.02	500	~~137.15~~	7.6	
1140	X		7.25	0	0.915	0.003	129.4	~~-2.4~~ -0.2	3.91	-0.13	20.7	1.1	21.35	0.14	500	137.15	8.2	
1145	X		7.24	0.1	0.919	-0.004	131.5	2.1	3.95	0.04	20.4	0.3	21.27	0.08	500	137.15	8.8	
1150	X		7.24	0	0.910	0.009	132.2	-0.7	4.07	-0.12	20.4	0	21.32	-0.05	500	137.15	9.4	
1155	X		7.25	-0.1	0.911	-0.001	131.7	0.5	4.03	0.04	20.5	-0.1	21.37	-0.05	500	137.15	10	
1200	X		7.25	0	0.910	0.001	131.9	-0.2	4.01	0.02	20.4	0.1	21.35	0.02	500	137.15	10.6	
1205	X		7.24	0.1	0.915	-0.005	131.6	0.3	3.99	0.02	20.6	-0.2	21.38	-0.03	500	137.15	11.2	
1210	X		7.24	0	0.912	0.003	132.0	-0.4	4.0	-0.01	20.2	0.4	21.37	0.01	500	137.15	11.8	
1215	X		7.22	0.2	0.918	-0.006	131.4	0.6	4.2	-0.2	19.9	0.3	21.21	0.16	5000	137.15	12.6	
1220	X		7.23	-0.1	0.919	-0.001	131.5	-0.1	4.53	-0.33	19.7	0.1	21.07	0.14	500	137.15	13.2	
1225	X		7.22	0.1	0.918	0.001	129.9	1.6	4.57	-0.04	19.2	0.5	21.06	0.01	500	137.15	~~13.8~~ 14.0	13.8
1230	X		7.21	0.1	0.919	-0.001	131.5	-1.6	3.98	0.59	18.8	0.4	21.10	-0.04	500	137.15	~~14.6~~ ~~14~~ 14.4	14.4
~~1235~~	X		7.21	0	0.919	0	133.6	-2.1	3.87	0.11	18.5	0.3	21.10	0	500	137.15	15	

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: _____ **Water Quality Meter Make/Model:** _____ **WELL:**

Location: _____ **Water Quality Meter Serial #:** _____

Project No.: _____ **Field Personnel:** _____

Weather: _____ **Signature:** _____

Date: _____

Well ID: _____ **Well Depth:** _____ ft **Screened/Open Interval:** _____ to _____ ft below TOC

Well Permit #: _____ **Well Diameter:** _____ inches

PID/FID Readings (ppm) **Pump Intake Depth:** _____ ft below TOC

Background: _____ **Depth to Water Before Pump Installation:** _____ ft below TOC

Beneath Inner Cap: _____

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (µS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
1240	X		7.21	0.0	0.917	0.002	133.5	0.1	3.63	-.24	17.9	0.6	21.11	0.01	500	137.15	15.6	
1245	X		7.21	0	0.917	0	132.8	0.7	3.22	0.41	17.6	0.3	21.11	0	500	137.15	16.2	
1250	X		7.20	0.1	0.917	0	137.2	-4.4	3.02	0.20	16.9	0.7	21.12	-0.01	500	137.15	16.8	
1255	X		7.20	0	0.917	0	142.9	-5.7	2.59	0.43	16.0	0.9	21.12	0	500	137.15	17.4	
1300	X		7.20	0	0.918	-0.001	130.4	12.5	2.33	0.26	14.9	1.1	21.12	0	400	137.15	17.9	
1305	X		7.20	0	0.919	-0.001	134.2	-4.2	2.14	0.19	11.3	3.6	21.08	0.04	300	137.15	18.2	
1310	X		7.20	0	0.918	0.001	130.0	4.2	2.13	0.01	9.7	1.6	21.28	0.20	480	137.15	18.5	
1315	X		7.2	0	0.917	0.001	130.3	-0.3	2.08	0.05	10.1	-0.4	21.21	0.07	400	137.15	19	
1320	X		7.2	0	0.916	0.001	130.9	-0.6	2.08	0	7.4	2.7	21.25	0.04	300	137.15	18.5	
1325	X		7.2	0	0.917	-0.001	131.0	-0.1	2.08	0	7.8	-0.4	21.32	0.07	400	137.15	18.8	
1330	X		7.19	0.1	0.914	0.001	131.1	-0.1	2.03	0.5	6.2	1.6	21.23	0.09	300	137.15	19.1	
1335	X		7.19	0	0.915	-0.001	135.1	-4.0	1.97	0.06	5.5	0.7	21.32	-0.09	300	137.15	19.4	
1340	X		7.19	0	0.923	-0.008	135.7	-0.6	1.96	0.01	5.1	0.4	21.31	0.01	300	137.15	19.7	
1345	X		7.19	0	0.918	0.005	135.2	0.5	1.99	-0.03	5.3	0.2	21.31	0	300	137.15	1920.	

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: _____ **Water Quality Meter Make/Model:** _____ **WELL:**

Location: _____ **Water Quality Meter Serial #:** _____

Project No.: _____ **Field Personnel:** _____

Weather: _____ **Signature:** _____

Date: _____

Well ID: _____ **Well Depth:** _____ ft **Screened/Open Interval:** _____ to _____ ft below TOC

Well Permit #: _____ **Well Diameter:** _____ inches

PID/FID Readings (ppm)

Background: _____ **Pump Intake Depth:** _____ ft below TOC

Beneath Inner Cap: _____ **Depth to Water Before Pump Installation:** _____ ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (µS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
1350	X		7.19	0	0917	0.01	135.2	0	1.97	0.02	4.9	0.3	21.13		300	137.15	20.3	
1355		X																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: Agua Mansa Commerce Park
Location: 1500 Rubidoux Blvd
Project No.: 721010301
Weather: Sunny 85°
Date: 3/28/17

Water Quality Meter Make/Model: YSI 556 MPS
Water Quality Meter Serial #: 15K101833
Field Personnel: D. Lassen, A. Thomas
Signature:

WELL: MW-4

Well ID: MW-4
Well Permit #:
Well Depth: 65.45 ft
Well Diameter: 4 inches
Screened/Open Interval: _____ to _____ ft below TOC

PID/FID Readings (ppm)
Background: N/A
Beneath Inner Cap: N/A

Pump Intake Depth: 60 ft below TOC
Depth to Water Before Pump Installation: 39.2 ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (µS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
1340	✓														25 gpm	45.70	12.5	
1353	✓		7.7		889		43.4		4.00		19.5		23.09		1 gpm	43.35	25.5	
1406	✓		7.14		897		58.7		3.62		114.0		23.04		1 gpm	43.37	38.5	
1420	✓		7.19		897		58.1		3.63		43.1		23.05		1 gpm	43.57	52.5	
1434	✓		7.22		892		57.3		3.63		26.4		23.08		1 gpm	43.38	66.5	
1447	✓		7.26		890		54.6		3.54		12.2		23.08		1 gpm	43.43	79.5	
1457	✓		7.28		888		53.9		3.65		7.83		23.13		1 gpm	43.44	89.5	

COMMENTS:

***INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity**

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: Crestmore
Location: 700045401 - Riverside, Ca
Project No.: 700045401
Weather:
Date: 3-28-17

Water Quality Meter Make/Model: YSI 556 MPS
Water Quality Meter Serial #: 15K10 1833
Field Personnel: M.T., D.L.
Signature:

WELL: MW-3

Well ID: MW-3
Well Permit #:
Well Depth: 90.3 ft
Well Diameter: 4 inches
Screened/Open Interval: _____ to _____ ft below TOC

PID/FID Readings (ppm)
Background:
Beneath Inner Cap:

Pump Intake Depth: 88.0 ft below TOC
Depth to Water Before Pump Installation: 81.79 ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (µS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
11:25	X		7.57		1.032		67.8		5.94		2		20.82		9,000	81.79	23.8	
11:35	X		7.57		1.034		68.2		5.90		2.12		20.84		6,800	81.91	41.7	
11:45	X		7.54		1.036		69.7		5.83		0.44		20.88		6,000	81.9	57.6	
11:55	X		7.53		1.037		69.7		5.84		0.23		20.93		9,000	81.9	81.3	
12:00		X																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: Crestmore Cement
Location: 700045401 - Riverside, Ca
Project No.: 700045401
Weather: Sunny 83°
Date: 3-28-17

Water Quality Meter Make/Model: YSI 556 MPS
Water Quality Meter Serial #:
Field Personnel: ~~D. Boyle~~ D.L., M.T.
Signature:

WELL: Northern well

Well ID: —
Well Permit #:
Well Depth: 172.1 ft
Well Diameter: 12 inches
Screened/Open Interval: _____ to _____ ft below TOC

PID/FID Readings (ppm)
Background:
Beneath Inner Cap:

Pump Intake Depth: 166.1 ft below TOC
Depth to Water Before Pump Installation: 133.8 ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (mS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
825	X																	
915	X		7.66		0.921		9.5		5.53				19.38		4,500	134.6	59.4	
925	X		7.59		0.951		25.9		5.69				20.28		3,900	134.5	69.7	
435	X		7.55		0.951		33.9		5.04				20.26		1,200	134.5	72.9	
945	X		7.52		0.949		45.8		4.90		~~10.24~~		20.20		1,400	134.55	76.6	
1000	X		7.53		0.948		52.9		4.88		~~9.9~~		20.20		4,500	134.6	94.4	
1010	X		7.54		0.951		54.7		5.10		9.9		20.55		4,500	134.6	106.3	
1020	X		7.53		0.954		54.6		4.93		9.6		20.56		4,200	134.65	117.4	
~~1030~~		X																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: Crestmore Cement
Location: Riverside, CA
Project No.: 700045401
Weather: Sunny
Date: 5-23-17

Water Quality Meter Make/Model: YSI 556 MPS
Water Quality Meter Serial #: 14825
Field Personnel: M.T.
Signature:

WELL: Northern WC

Well ID: Northern Well
Well Permit #:
Well Depth: 172.4 ft
Well Diameter: 12 inches
Screened/Open Interval: _____ to _____ ft below TOC

PID/FID Readings (ppm)
Background: 0.0
Beneath Inner Cap: 0.0

Pump Intake Depth: 165.2 ft below TOC
Depth to Water Before Pump Installation: 134.75 ft below TOC

1.13
1.13

TIME	PURGING	SAMPLING	pH (standard units) READING	pH CHANGE*	SPECIFIC CONDUCTIVITY (µS/cm) READING	SPECIFIC CONDUCTIVITY CHANGE*	REDOX POTENTIAL (mV) READING	REDOX POTENTIAL CHANGE*	DISSOLVED OXYGEN (mg/L) READING	DISSOLVED OXYGEN CHANGE*	TURBIDITY (NTU) READING	TURBIDITY CHANGE*	TEMPERATURE (°C) READING	TEMPERATURE CHANGE*	PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
0850	X		6.97		1.036		70.8		8.18		31.5		20.88		4,500	134.8	~~1.78~~	5.9
0900	X		7.05		1.035		101.5		8.19		24.2		20.98		4,500	134.8	~~2.36~~	11.8
0915	X		7.11		1.033		59.6		8.23		19.1		20.96		4,500	134.8	~~3.54~~	17.7
0925	X		7.13		1.032		60.6		8.25		16.8		21.05		4,300	134.8	~~4.6~~	24.1
0935	X		7.15		1.030		59.7		8.35		12.4		21.07		4,500	134.8	30	~~30~~
0945	X		7.15		1.028		~~59.4~~ 60.4		8.48		10.8		21.00		4,300	134.8	35.7	~~35.7~~
0955	X		7.14		1.027		60.0		8.92		9.5		21.06		4,500	134.85	41.6	
1000	X		7.15		1.027		60.2		8.91		7.9		21.08		4,500	134.85	46.5	
1005	X		7.15		1.026		60.2		9.03		6.5		21.12		4,500	134.8	52.4	
1010	X		7.14		1.026		60.4		9.25		5.2		21.12		4,500	134.8	58.3	
1015	X		7.15		1.026		60.4		9.30		4.9		21.12		4,500	134.8	64.2	
1020		X																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

A2
1.05

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name:	Westmore	**Water Quality Meter Make/Model:**	YSI 556 MPS
Location:	70004540	**Water Quality Meter Serial #:**	14825
Project No.:	Riverside, CA	**Field Personnel:**	M.T.
Weather:	5-23-17	**Signature:**	
Date:	Sunny	**WELL:**	MW-3

Well ID: MW-3 **Well Depth:** 90.1 ft **Screened/Open Interval:** _____ to _____ ft below TOC

Well Permit #: _____ **Well Diameter:** 4.0 inches

PID/FID Readings (ppm)

Background: 0.0

Beneath Inner Cap: 0.0

Pump Intake Depth: ~~88~~ 88' ft below TOC

Depth to Water Before Pump Installation: 82.8 ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (µS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
1140	X		7.43		1.060		73.8		7.62		12.6		22.45		3500	82.8	4.6	
1150	X		7.18		1.060		48.2		7.77		7.03		21.51		4000	82.9	9.85	
1200	X		7.19		1.060		38.0		7.8		1.94		21.52		4000	82.9	15.10	
1205	X		7.2		1.059		37		7.82		1.26		21.5		4000	82.9	20.35	
1210	X		7.2		1.059		36.5		7.8		0.5		21.48		4000	89.9	25.60	
1220		X																

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft

1.58
1.05

Low-Flow Purging and Sampling Field Data Sheet

Langan Engineering and Environmental Services

Site Name: _____ **Water Quality Meter Make/Model:** YSI 556 MPS **WELL:** MW-4

Location: Crestmore - Riverside, Ca **Water Quality Meter Serial #:** 14825

Project No.: 700045401 **Field Personnel:** M.T.

Weather: sunny **Signature:**

Date: 5-23-17

Well ID: MW-4 **Well Depth:** 65.5 ft **Screened/Open Interval:** _____ to _____ ft below TOC

Well Permit #: _____ **Well Diameter:** 4.0 inches

PID/FID Readings (ppm)

Background: 0.0 **Pump Intake Depth:** 60 ft below TOC

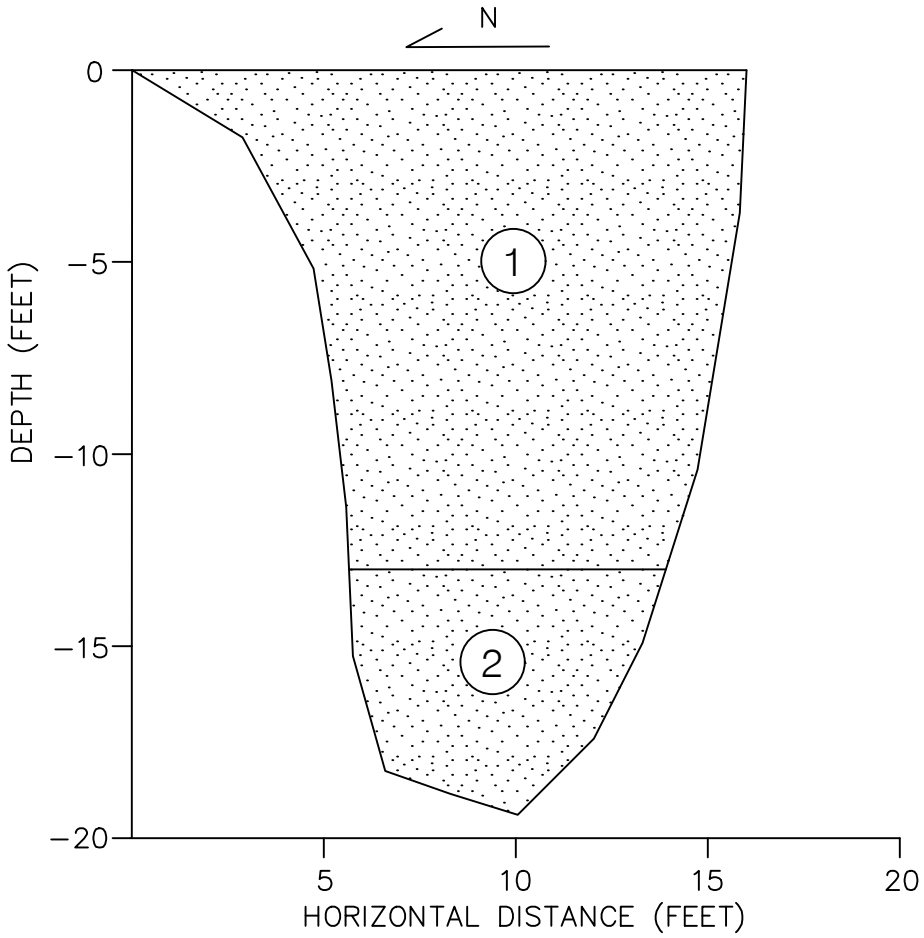
Beneath Inner Cap: 0.0 **Depth to Water Before Pump Installation:** 37.2 ft below TOC

TIME	PURGING	SAMPLING	pH (standard units)		SPECIFIC CONDUCTIVITY (µS/cm)		REDOX POTENTIAL (mV)		DISSOLVED OXYGEN (mg/L)		TURBIDITY (NTU)		TEMPERATURE (°C)		PUMPING RATE (mL/min)	DEPTH TO WATER (ft below TOC)	TOTAL VOLUME PURGED (gal)	NOTES
			READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*	READING	CHANGE*				
1330	✓		6.63		0.918		93.2		5.3		80.0		25.6		6000		7.9	
1345	X		6.66		0.905		70.6		5.77		73.4		23.4		4000	44.5	13.15	
1350	X		6.81		0.901		54.3		5.57		60.0		23.15		4000	44.80	18.40	
1355	X		6.87		0.901		50.4		5.54		28.6		23.06		4000	44.6	23.65	
1340	X		6.91		0.900		48.1		5.50		17.6		23.01		4000	44.7	28.9	
1350	X		6.92		0.900		48.5		5.45		12.2		22.96		4000	44.7	34.15	
1400	X		6.92		0.901		49.2		5.39		9.8		22.95		4000	44.7	39.35	
1405	X		6.92		0.901		49.4		5.38		7.7		22.94		4000	44.75	44.60	
1410	X		6.93		0.901		50.3		5.39		6.9		22.91		4000	44.75	49.85	
1415	X		6.93		0.901		50.5		5.39		4.8		22.92		4000	44.8	55.0	
1420	~~X~~																	

COMMENTS:

*INDICATOR PARAMETERS HAVE STABLIZED WHEN 3 CONSECUTIVE READINGS ARE WITHIN: ± 0.1 for pH; ± 3% for Specific Conductivity and Temperature; ± 10 mv for Redox Potential; and ± 10% for Dissolved Oxygen and Turbidity

2" diameter well = 0.163 gal/ ft; 4" diameter well = 0.653 gal/ ft



TEST PIT DESCRIPTION:

(1) Tan, fine to medium SAND, (SP), trace gravel

(2) Tan/Light grey, fine to coarse SAND, (SP), trace gravel, trace cobbles

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 22 SEPTEMBER 2016 AND BACKFILLED ON 22 SEPTEMBER 2016 USING A BACKHOE.

LANGAN
32 Executive Park, Suite 130, Irvine, CA 92614
T: 949.255.8640 F: 949.255.8641 www.langan.com
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ABU DHABI ATHENS DOHA DUBAI ISTANBUL LONDON PANAMA
Langan Engineering & Environmental Services, Inc.

Project: AGUA MANSA COMMERCE PARK
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

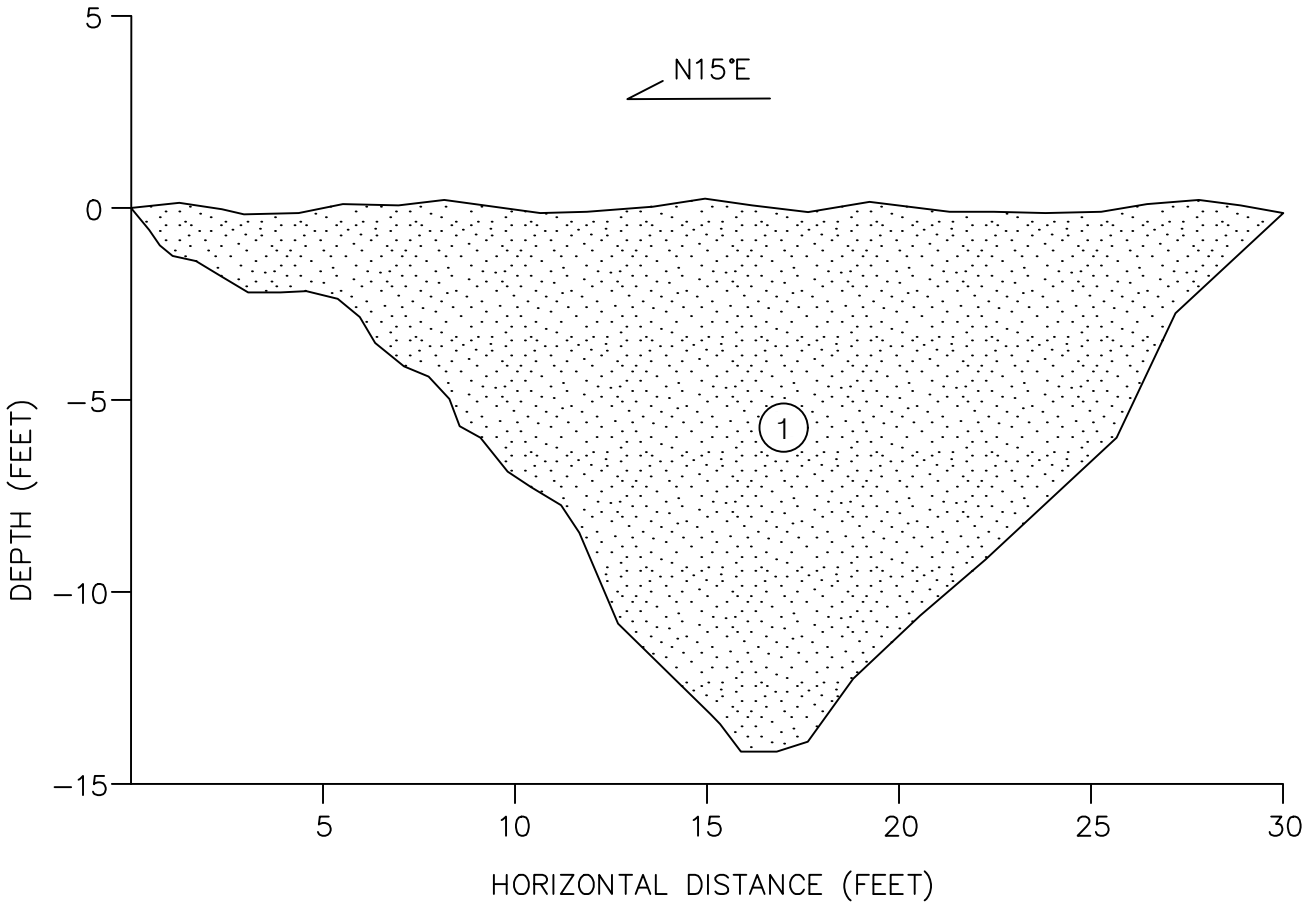
Figure Title: TEST PIT LOG LT-2

Project No. 700045403
Date 10 OCTOBER 2016
Scale 1" = 5'
Drawn By CBW

Figure No. XX

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Filename: \\langan.com\data\IRV\data4\700045402\Cadd Data - 700045402\CAD-DesignFiles\700045402 Test Pit Logs.dwg Date: 10/4/2016 Time: 12:44 User: djudge Style Table: Langan.stb Layout: LT-2



TEST PIT DESCRIPTION:

(1) Tan, fine SAND, (SP) dry, pinholes in sidewall observed.

NOTES:

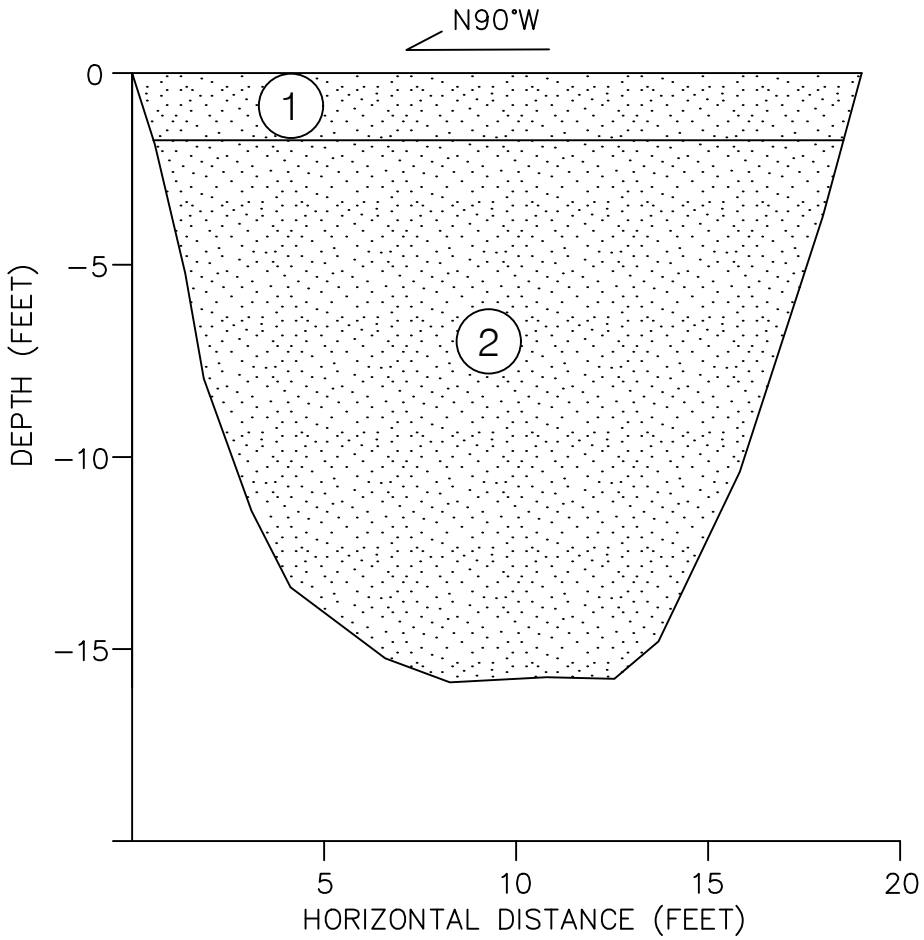
1. REFER TO FIGURE 2 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 8 AUGUST 2016 AND BACKFILLED ON 8 AUGUST 2016 USING A BACKHOE.

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ABU DHABI ATHENS DOHA DUBAI ISTANBUL LONDON PANAMA
Langan Engineering & Environmental Services, Inc.

Project	AGUA MANSA COMMERCE PARK JURUPA VALLEY RIVERSIDE COUNTY CALIFORNIA
Figure Title	TEST PIT LOG LT-4
Project No.	700045403
Date	10 OCTOBER 2016
Scale	1" = 5'
Drawn By	JAB; cbw
Figure No.	XX

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Filename: \\langan.com\data\IRV\data4\700045403\Cadd Data - Geotech\2D-DesignFiles\700045403 Test Pit Logs.dwg Date: 10/5/2016 Time: 16:35 User: jbaron Style Table: Langan.stb Layout: LT-4



TEST PIT DESCRIPTION:

(1) Light grey, SAND, (SP), partially cemented materials.

(2) Light brown, fine to medium SAND, (SP)

SAMPLE(s) COLLECTED (LT – TEST PIT # – DEPTH)

LT–5–1

LT–5–15

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED ON 27 SEPTEMBER 2016 USING A BACKHOE.

LANGAN
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ABU DHABI ATHENS DOHA DUBAI ISTANBUL LONDON PANAMA
Langan Engineering & Environmental Services, Inc.

Project: AGUA MANSA COMMERCE PARK
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

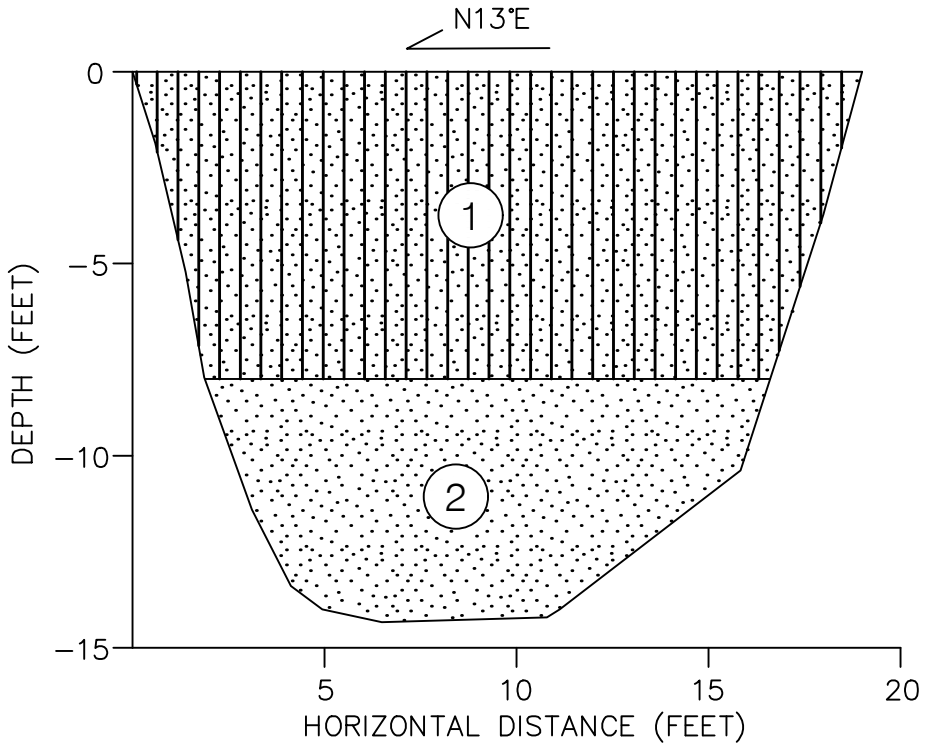
Figure Title: TEST PIT LOG LT-5

Project No. 700045403
Date 10 OCTOBER 2016
Scale 1" = 5'
Drawn By CBW

Figure No. XX

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TEST PIT DESCRIPTION:

(1) Light brown, fine to medium silty SAND, (SM)

(2) Tan/Light grey, fine to medium SAND, (SP), trace gravel, trace cobble

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED ON 27 SEPTEMBER 2016 USING A BACKHOE.

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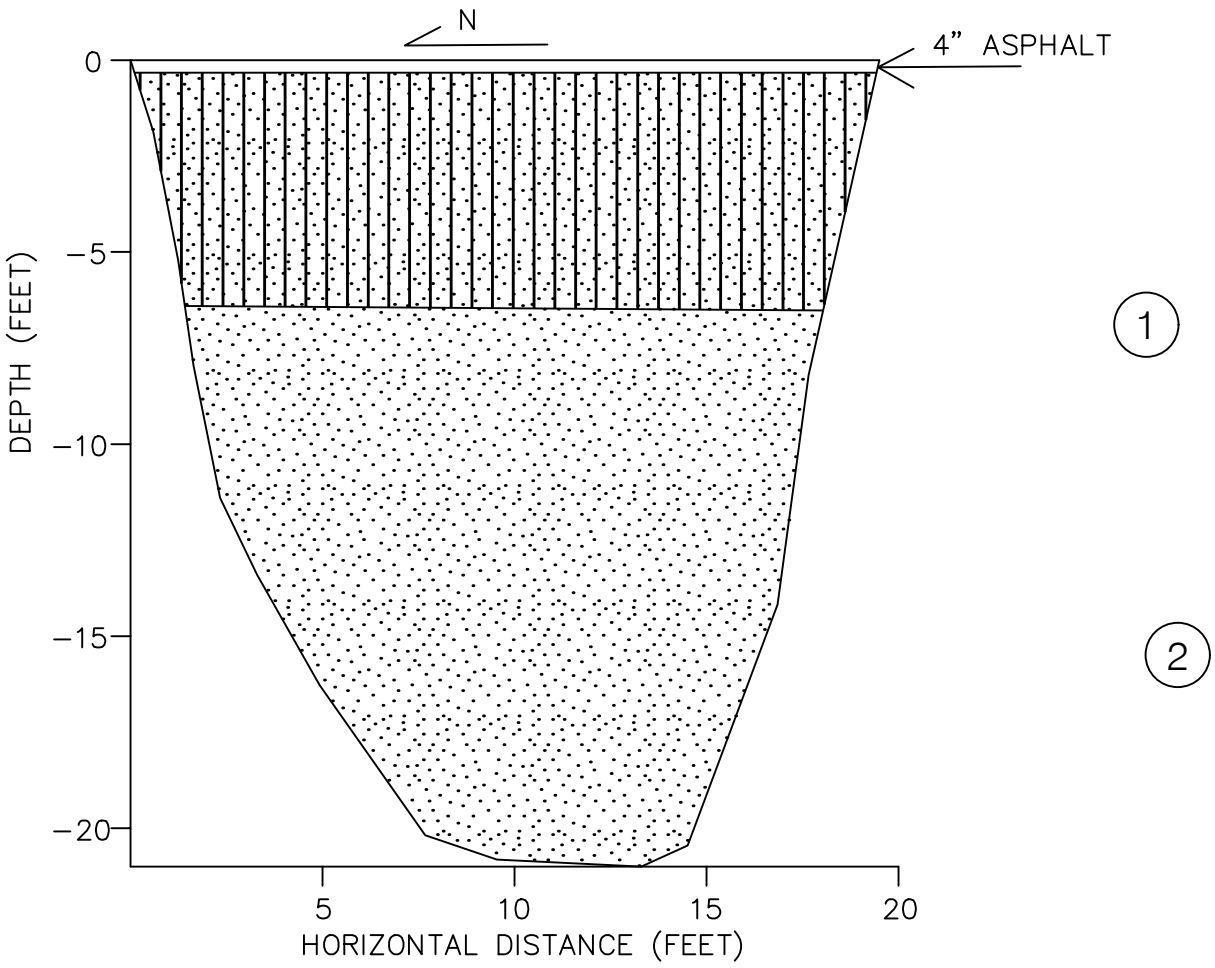
Figure Title: TEST PIT LOG LT-6

Project No. 700045403
Date 10 OCTOBER 2016
Scale 1" = 5'
Drawn By CBW

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TEST PIT DESCRIPTION:

(1) Tan/Light brown, fine to medium silty SAND, (SM)

(2) Tan/Light brown, fine to coarse SAND, (SP), trace gravel and cobbles

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 22 SEPTEMBER 2016 AND BACKFILLED ON 22 SEPTEMBER 2016 USING A BACKHOE.

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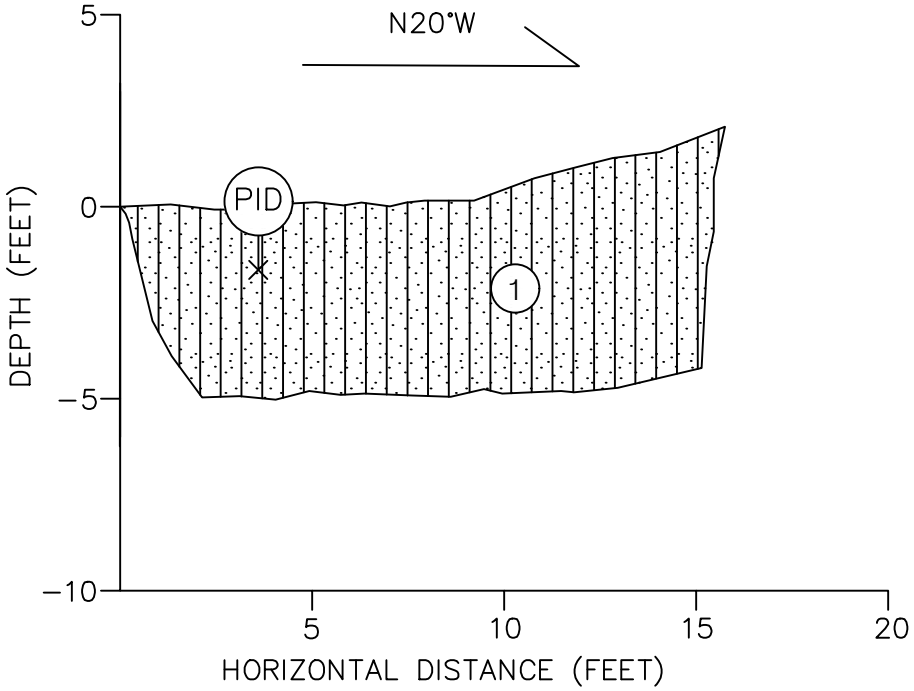
Figure Title: TEST PIT LOG LT-8

Project No. 700045403
Date 10 OCTOBER 2016
Scale 1" = 5'
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Figure No. XX

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TEST PIT DESCRIPTION:

(1) Brown–black, silty fine to coarse SAND, some fine to coarse, (SM) dry, slight odor, vegetation within trench side walls, PID=10 parts per million, plastic debris

NOTES:

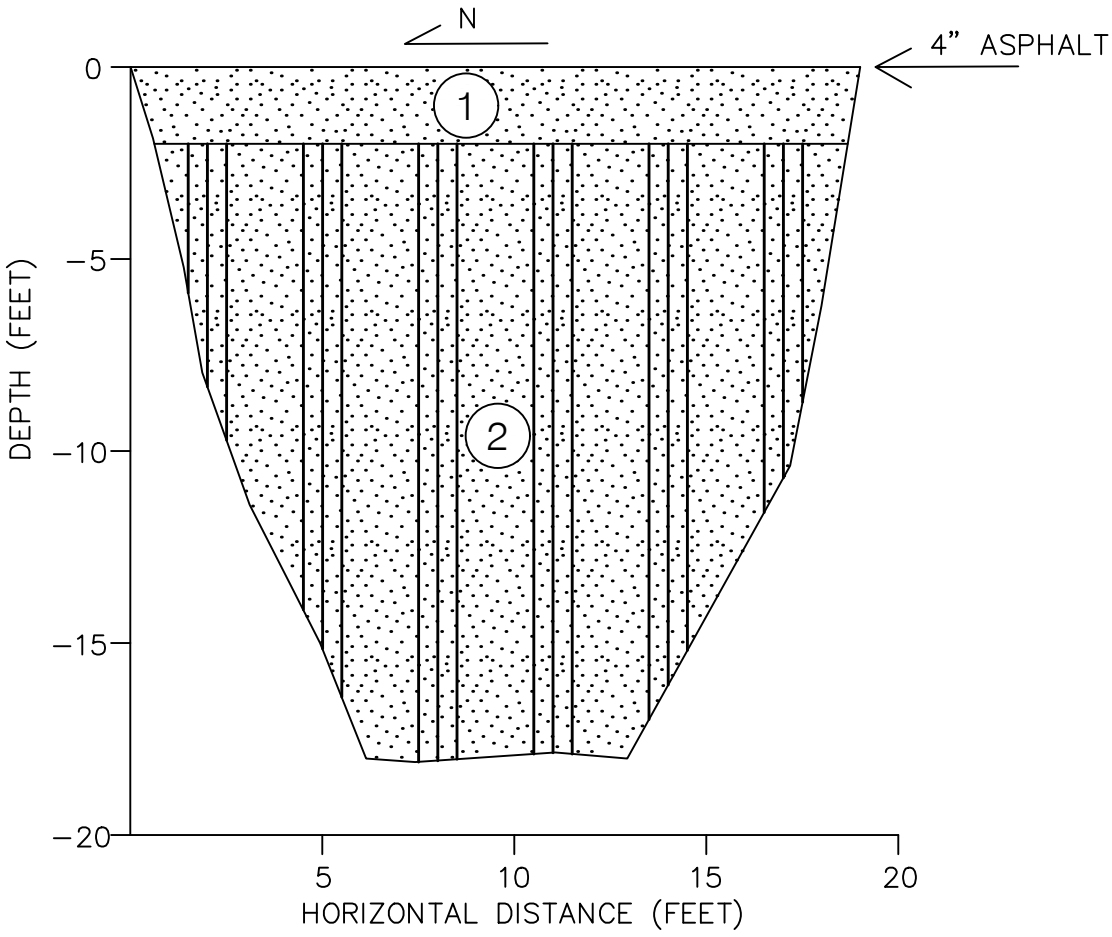
1. REFER TO FIGURE 2 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 21 SEPTEMBER 2016 AND BACKFILLED FOLLOWING OBSERVATION AND LOGGING.

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Project	AGUA MANSA COMMERCE PARK JURUPA VALLEY RIVERSIDE COUNTY CALIFORNIA
Figure Title	TEST PIT LOG LT-9
Project No.	700045403
Date	10 OCTOBER 2016
Scale	1" = 5'
Drawn By	JAB; cbw
Figure No.	XX

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TEST PIT DESCRIPTION:

(1) Light brown, fine to coarse SAND, (SP)

(2) Light brown, fine to medium SAND, (SP−SM), trace silt and clay

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED ON 27 SEPTEMBER 2016 USING A BACKHOE.

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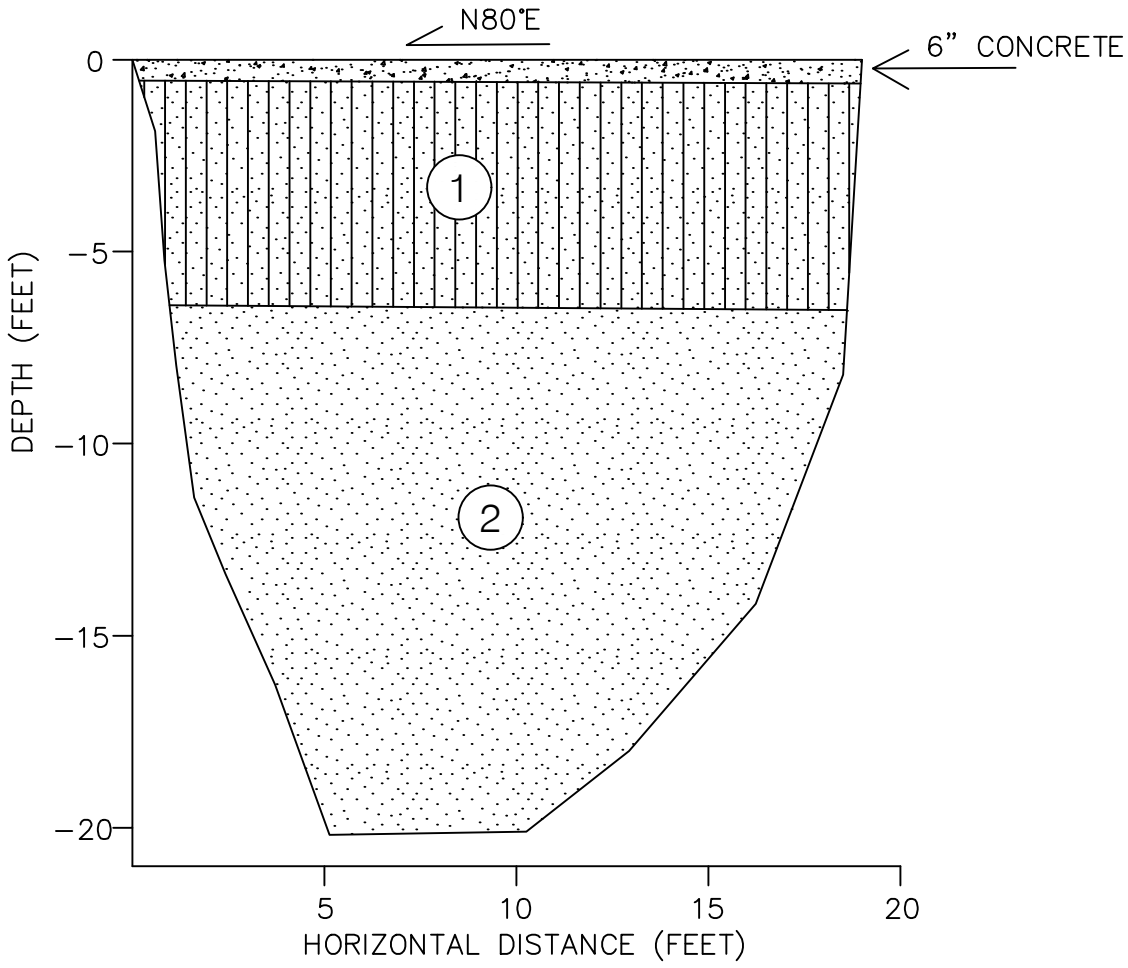
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Figure Title: TEST PIT LOG LT-10

Project No.	Figure No.
700045403	XX
Date: 10 OCTOBER 2016	
Scale: 1" = 5'	
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TEST PIT DESCRIPTION:

1. Tan, fine to coarse silty SAND, (SM), trace gravel
2. Tan−Grey, medium to coarse SAND (SP), trace gravel, trace cobble

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 22 SEPTEMBER 2016 AND BACKFILLED ON 22 SEPTEMBER 2016 USING A BACKHOE.

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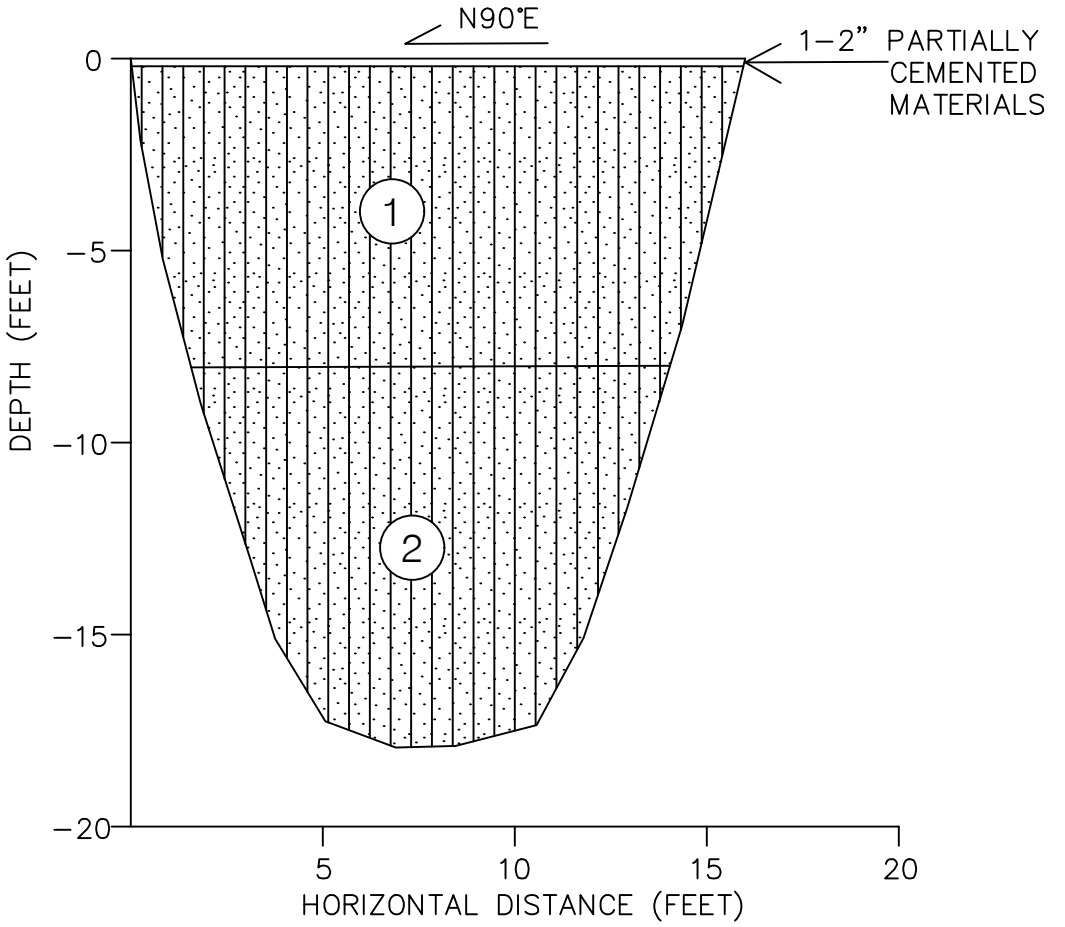
Figure Title: TEST PIT LOG LT-11

Project No. 700045403
Date 10 OCTOBER 2016
Scale 1" = 5'
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TEST PIT DESCRIPTION:

(1) Tan/Light brown, fine to medium silty SAND, (SM), trace gravel

(2) Light brown, fine to coarse silty SAND, (SM), trace gravel and cobble

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 22 SEPTEMBER 2016 AND BACKFILLED ON 22 SEPTEMBER 2016 USING A BACKHOE.

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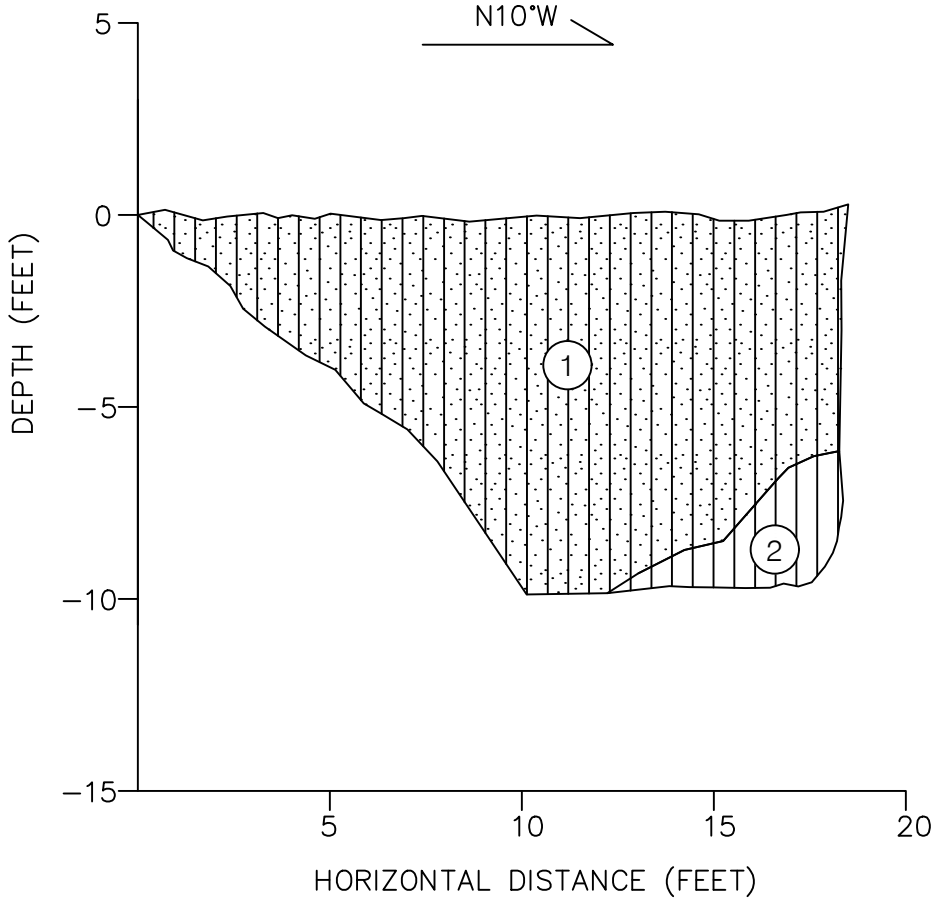
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Figure Title: TEST PIT LOG LT-12

Project No.	Figure No.
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TEST PIT DESCRIPTION:

(1) Brown–tan, silty fine to coarse SAND, some fine to coarse gravel, some cobbles, (SM) dry, vegetation debris.

(2) Brown–tan, sandy SILT, fine sand, trace cobble, (ML) moist.

NOTES:

1. REFER TO FIGURE 2 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 21 SEPTEMBER 2016 AND BACKFILLED FOLLOWED OBSERVATION AND LOGGING.

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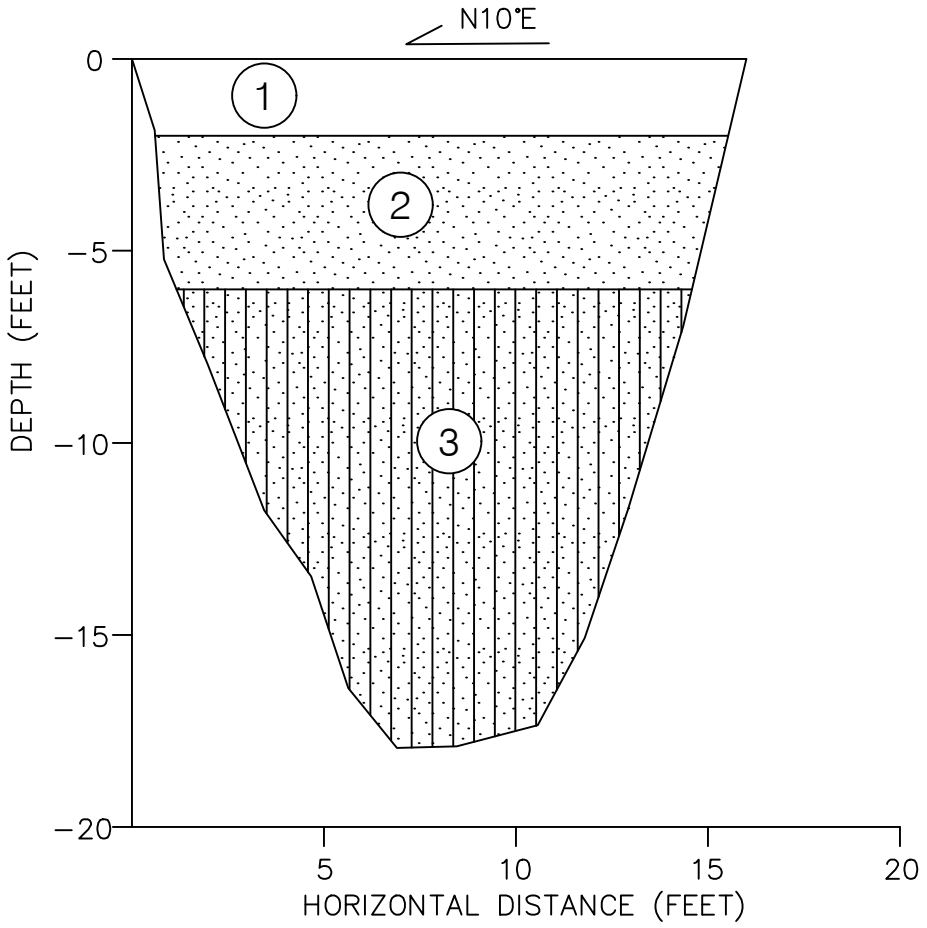
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Figure Title: TEST PIT LOG LT-13

Project No.	Figure No.
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Date: 10 OCTOBER 2016	
Scale: 1" = 5'	
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TEST PIT DESCRIPTION:

1. Light grey, partially cemented material "hard pan"
2. Tan, fine to coarse SAND (SP), trace gravel
3. Light brown, fine to medium silty SAND, (SM)

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED ON 27 SEPTEMBER 2016 USING A BACKHOE.

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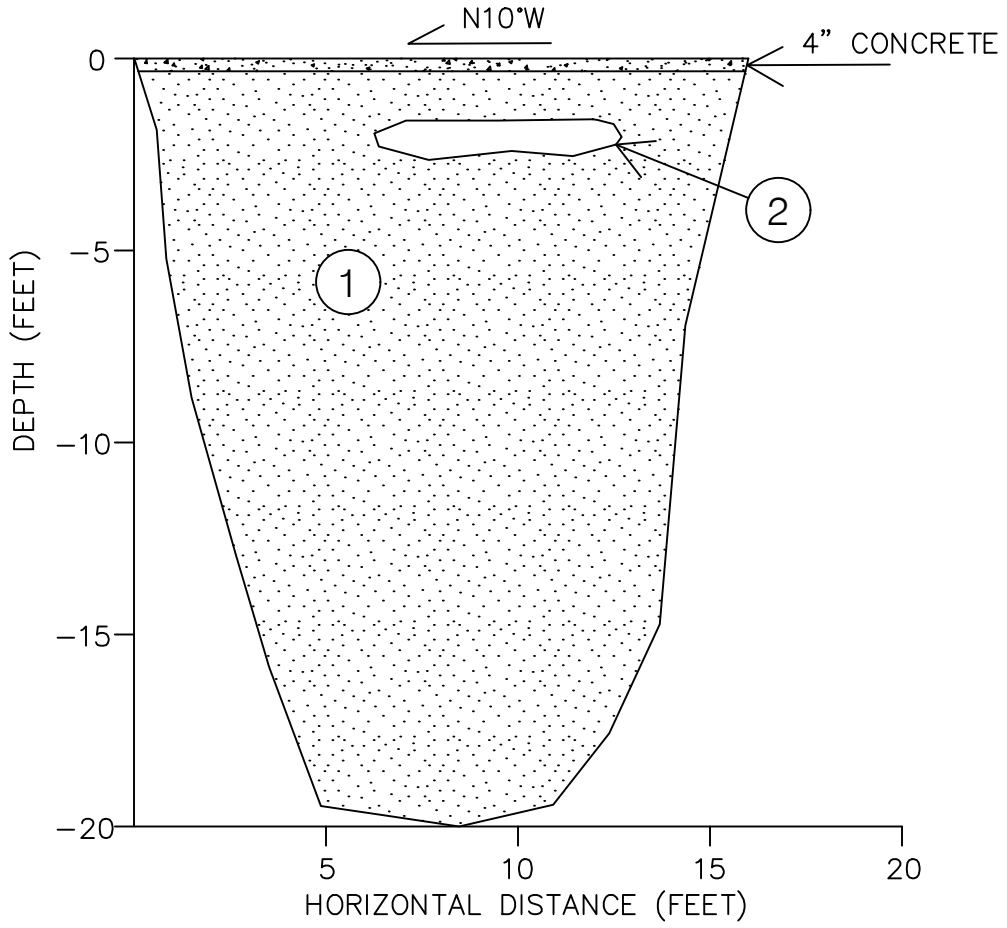
Figure Title: TEST PIT LOG LT-14

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TEST PIT DESCRIPTION:

(1) Tan/Brown, fine to coarse SAND, (SP), trace gravel and cobble

(2) White/Light grey stone – homogenous appearance

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED ON 27 SEPTEMBER 2016 USING A BACKHOE.

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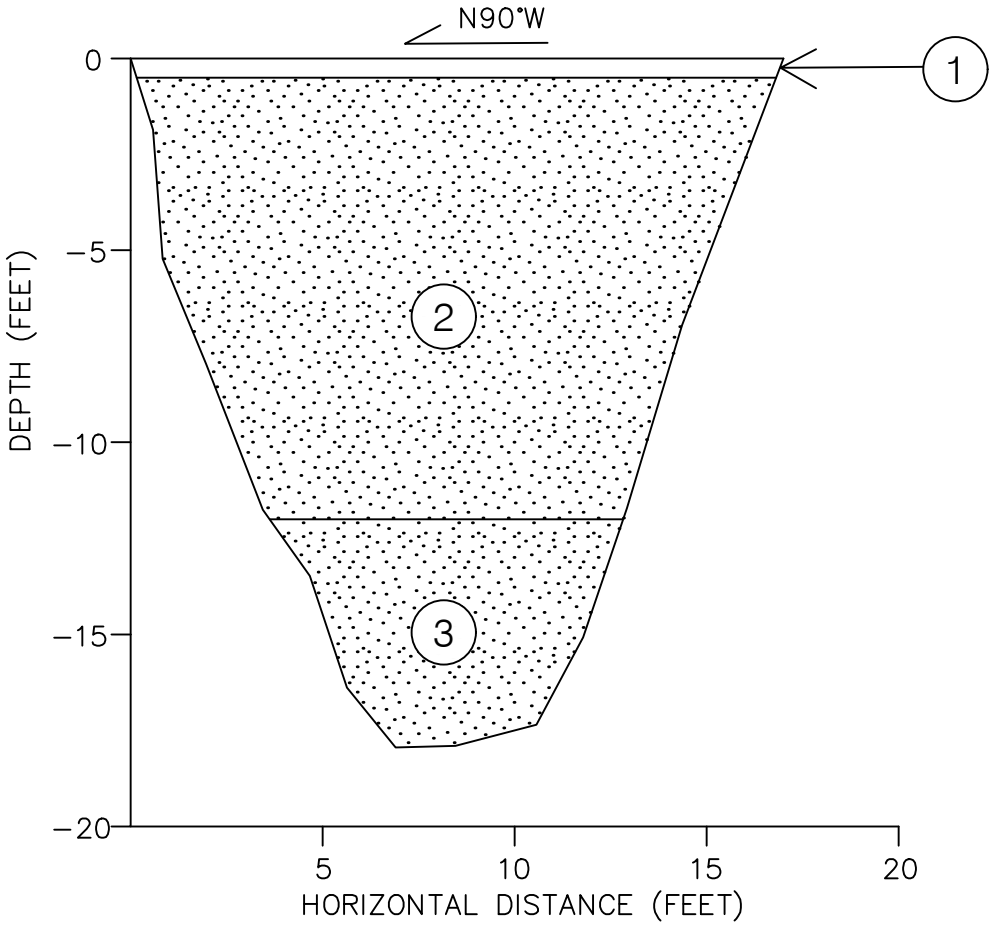
Figure Title: TEST PIT LOG LT-15

Project No.: 700045402
Date: 10 OCTOBER 2016
Scale: 1" = 5'
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Figure No.: XX

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TEST PIT DESCRIPTION:

1. Light grey, partially cemented material "hard pan"
2. Tan, fine to coarse SAND (SP)
3. Light brown, fine to medium SAND, (SP), trace cobbles

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED ON 27 SEPTEMBER 2016 USING A BACKHOE.

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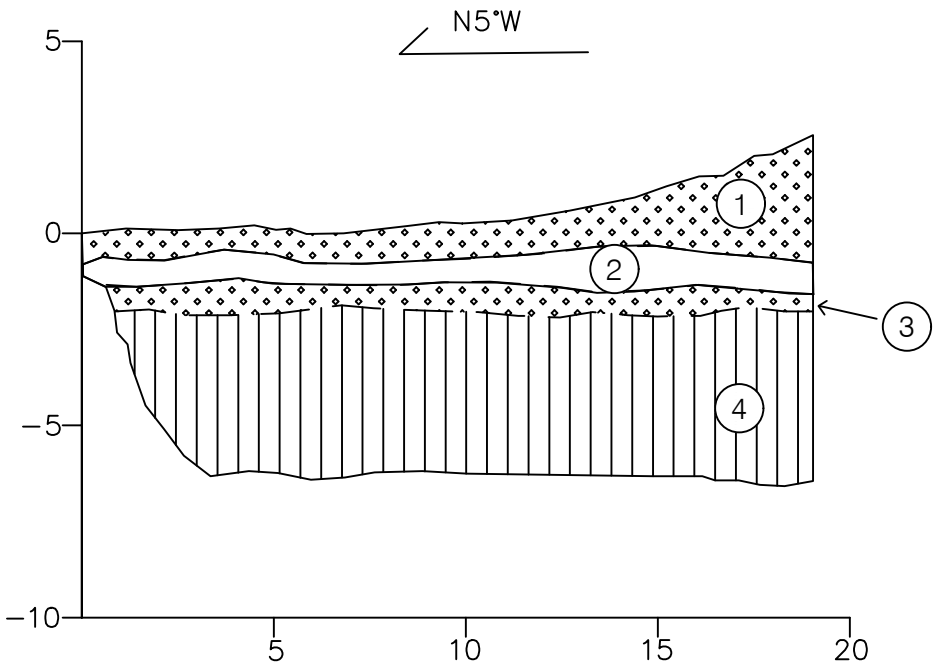
Figure Title: TEST PIT LOG LT-16

Project No. 700045403
Date 10 OCTOBER 2016
Scale 1" = 5'
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TEST PIT DESCRIPTION:

1. Tan, fine to coarse SAND, some fine to coarse gravel, (SW) dry.
2. 3" Asphalt and no AB
3. Gray, fine to coarse SAND, some fine gravel, (SW) dry.
4. Brown, SILT, trace fine sand, (ML) moist.

NOTES:

1. REFER TO FIGURE 2 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 19 SEPTEMBER 2016 AND BACKFILLED FOLLOWING OBSERVATION AND LOGGING.

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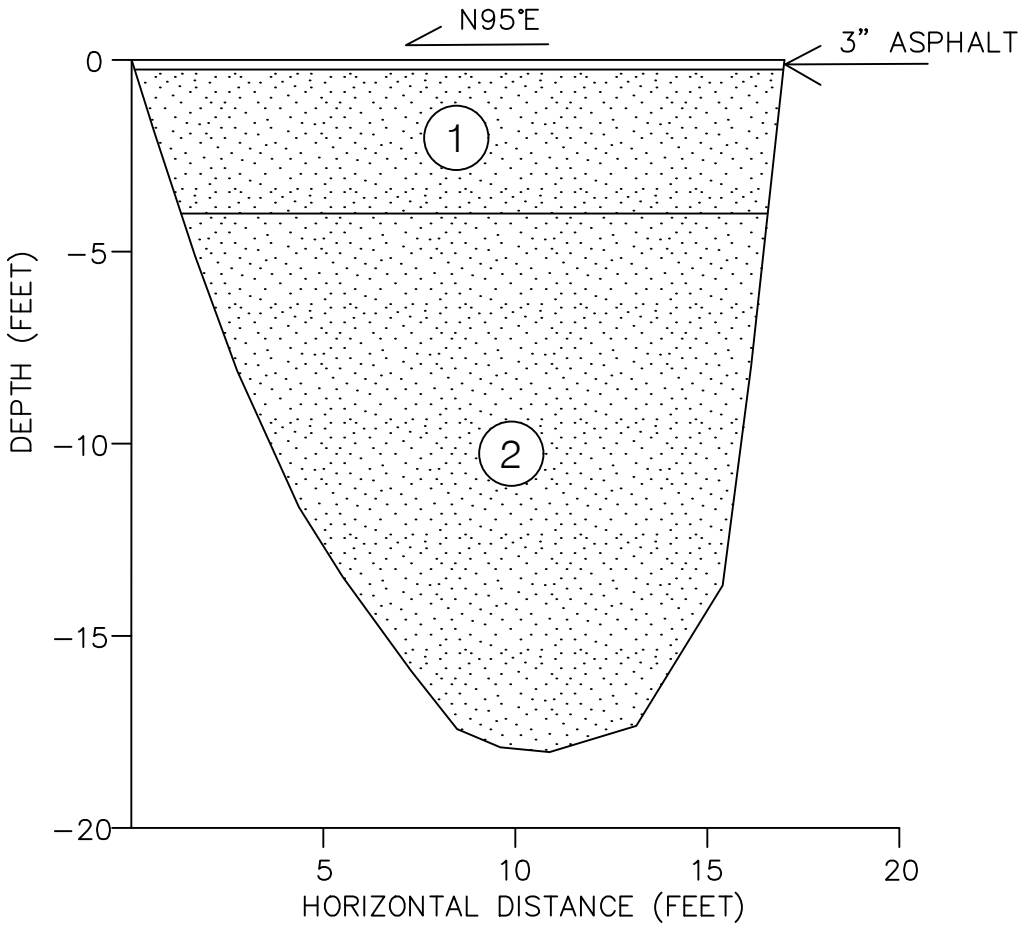
Figure Title: TEST PIT LOG LT-17

Project No. 700045403
Date 10 OCTOBER 2016
Scale 1" = 5'
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TEST PIT DESCRIPTION:

1. Tan, fine to coarse SAND (SP)
2. Light brown, fine to medium SAND, (SP), trace cobbles

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED ON 27 SEPTEMBER 2016 USING A BACKHOE.

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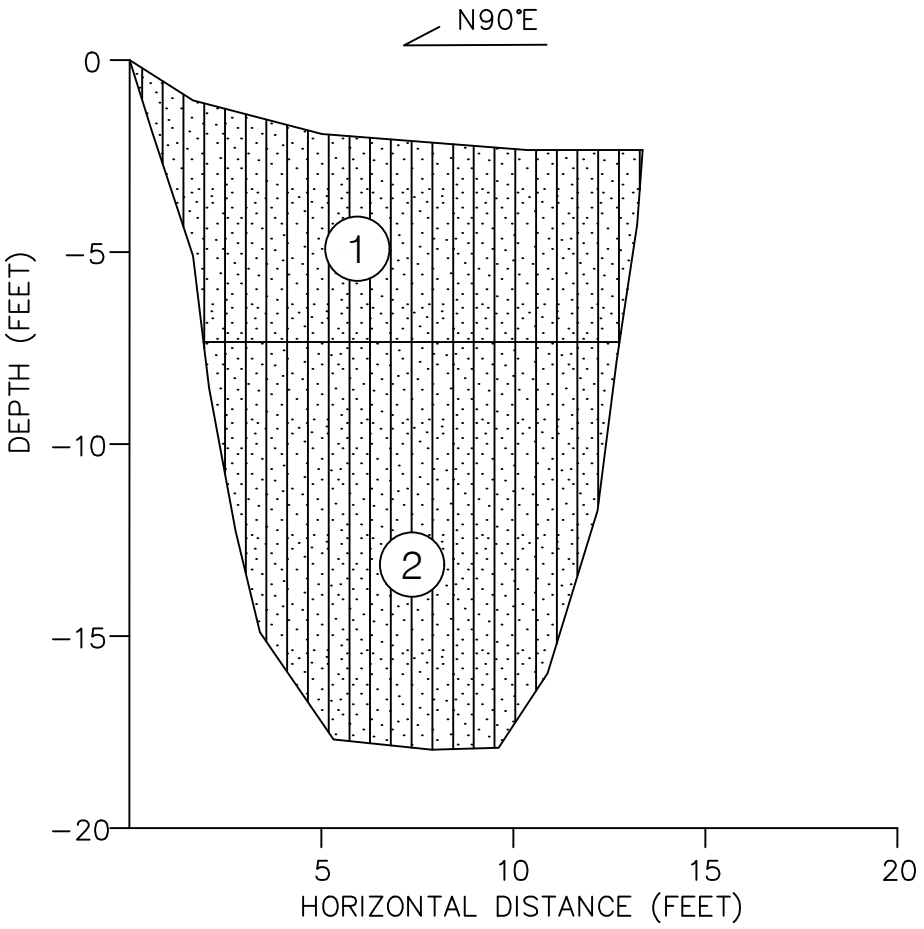
Figure Title: TEST PIT LOG LT-18

Project No. 700045403
Date 10 OCTOBER 2016
Scale 1" = 5'
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TEST PIT DESCRIPTION:

1. Tan, fine to coarse SAND (SP)
2. Light brown, fine to medium SAND, (SP), trace cobbles

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 30 SEPTEMBER 2016 AND BACKFILLED ON 30 SEPTEMBER 2016 USING A BACKHOE.

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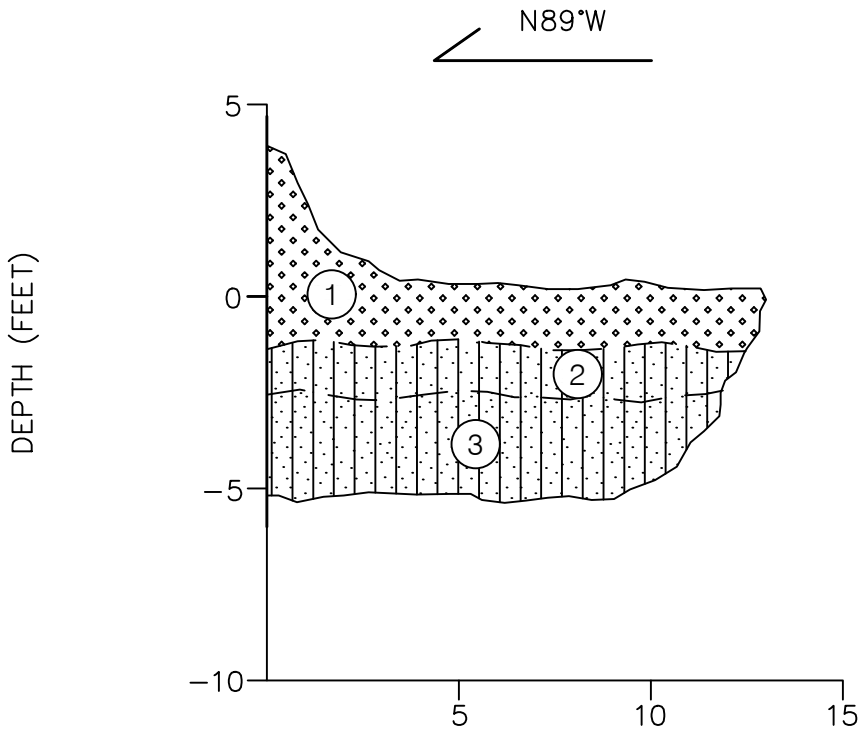
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Figure Title: TEST PIT LOG LT-19

Project No.	Figure No.
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TEST PIT DESCRIPTION:

(1) Tan/grey, fine to coarse SAND, some gravel, cemented, (SW) dry.

(2) Dark brown, silty fine to coarse SAND, some gravel, cemented, (SM) moist.

(3) Reddish–brown, silty fine to medium SAND, (SM) moist.

NOTES:

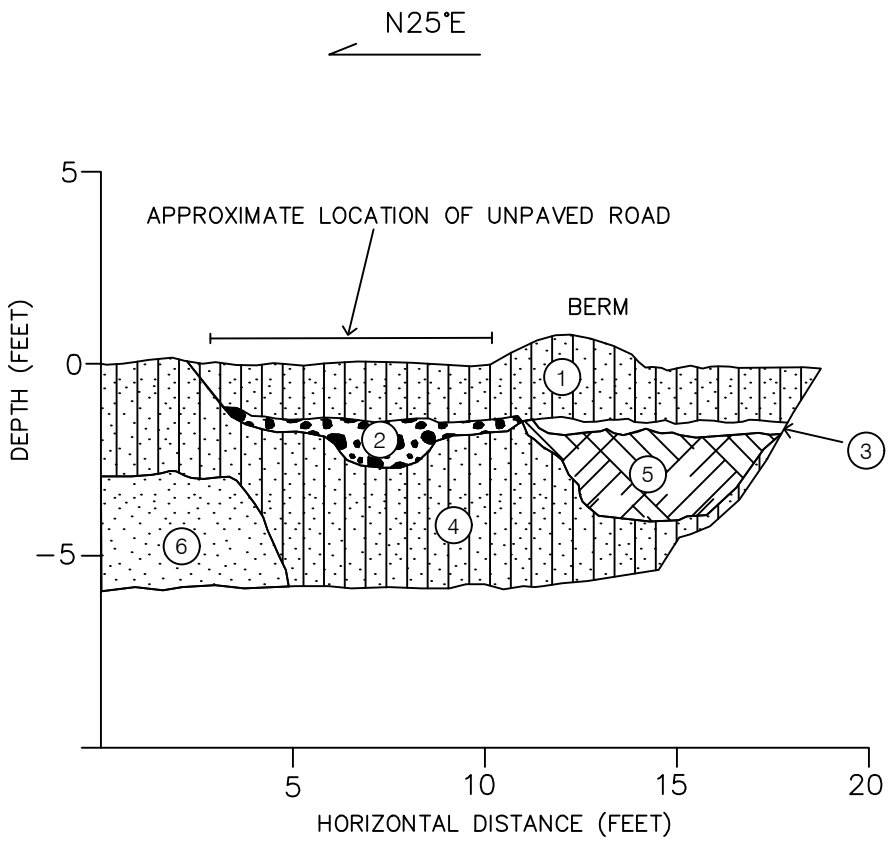
1. REFER TO FIGURE 2 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 19 SEPTEMBER 2016 AND BACKFILLED FOLLOWING OBSERVATION AND LOGGING.

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Project	Figure Title	Project No.	Figure No.
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TEST PIT DESCRIPTION:

1. Dark brown, silty fine to coarse SAND, some fine gravel, (SM) dry.
2. Gray, fine to coarse GRAVEL, cemented (GW), dry.
3. Pink, suspected CKD
4. Brown, silty fine to coarse SAND, some fine to coarse gravel (SM), moist.
5. Brown with white mottling, fine GRAVEL, (GP) cemented (suspected cement waste product)
6. Light gray, fine to medium SAND, (SP) dry

NOTES:

1. REFER TO FIGURE 2 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 19 SEPTEMBER 2016 AND BACKFILLED FOLLOWING OBSERVATION AND LOGGING.

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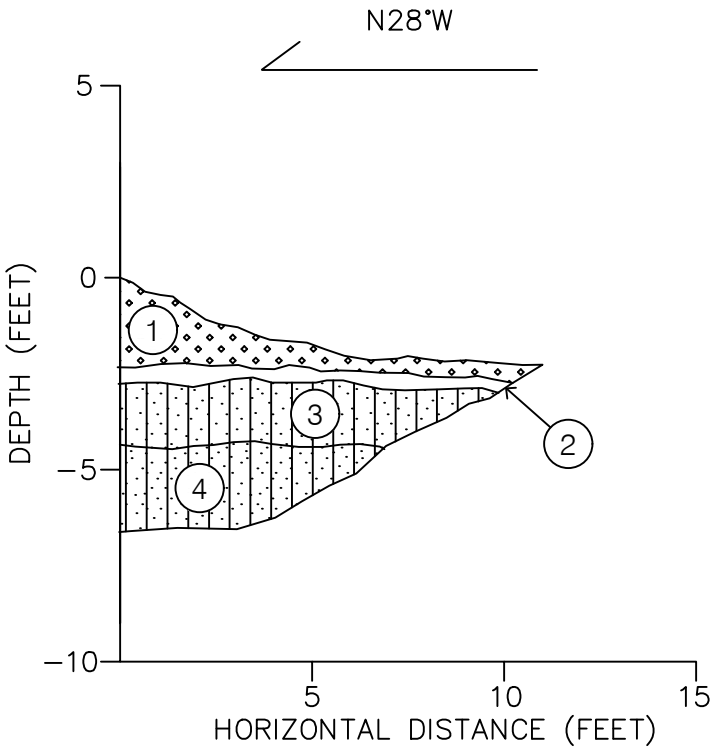
Figure Title: TEST PIT LOG LT-21

Project No. 700045403
Date 10 OCTOBER 2016
Scale 1" = 5'
Drawn By JAB; cbw

Figure No. XX

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TEST PIT DESCRIPTION:

1. Tan, fine to coarse SAND, some fine to coarse gravel, (SW) dry.
2. 3" thick asphalt and 4' aggregate base
3. Dark brown, silty fine to coarse SAND, some fine to coarse gravel, (SM) moist.
4. Reddish–brown, SILT, some fine sand, (SM) moist.

NOTES:

1. REFER TO FIGURE 2 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 19 SEPTEMBER 2016 AND BACKFILLED FOLLOWING OBSERVATION AND LOGGING.

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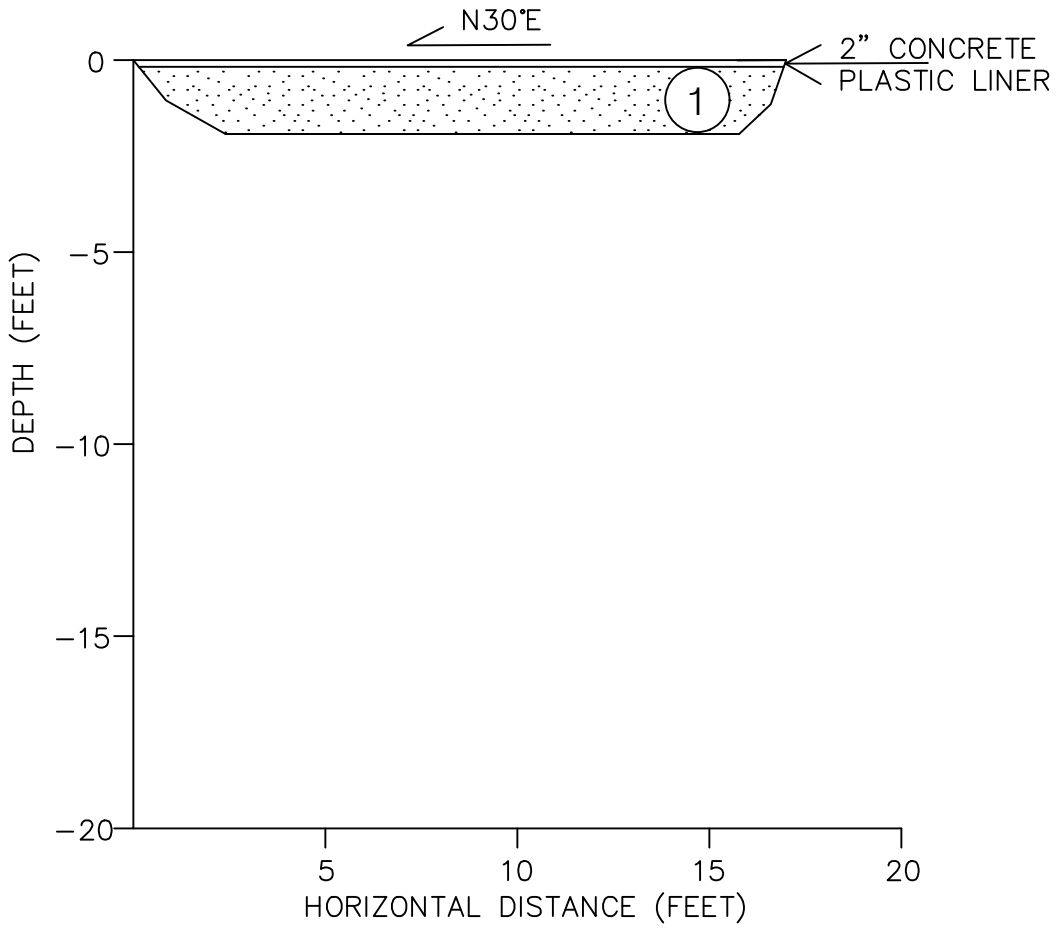
Figure Title: TEST PIT LOG LT-22

Project No. 700045403
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TEST PIT DESCRIPTION:

(1) Tan, fine to coarse SAND, (SP)

Encountered concrete pad at 2 feet

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 20 SEPTEMBER 2016 AND BACKFILLED ON 20 SEPTEMBER 2016 USING A BACKHOE.

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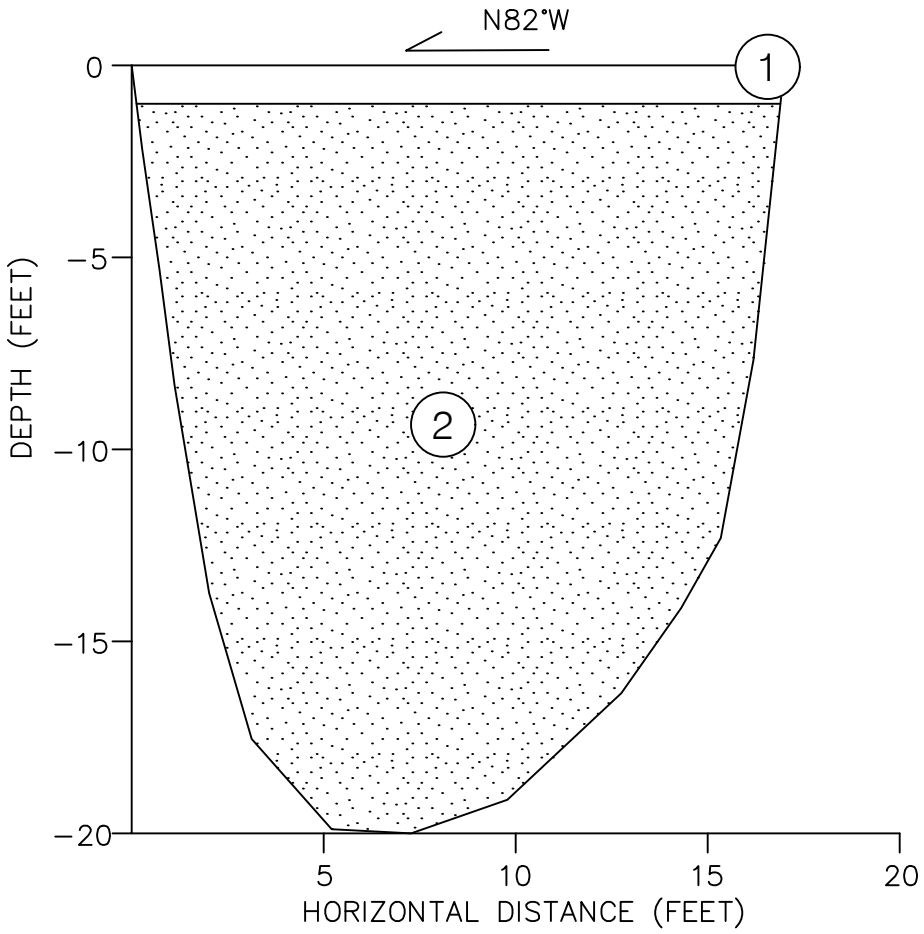
Figure Title: TEST PIT LOG LT-23

Project No. 700045402
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TEST PIT DESCRIPTION:

1. Cemented materials "Hard–Pan"
2. Brown, fine to coarse SAND, (SP)

NOTES:

1. REFER TO FIGURE 3 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 23 SEPTEMBER 2016 AND BACKFILLED ON 23 SEPTEMBER 2016 USING A BACKHOE.

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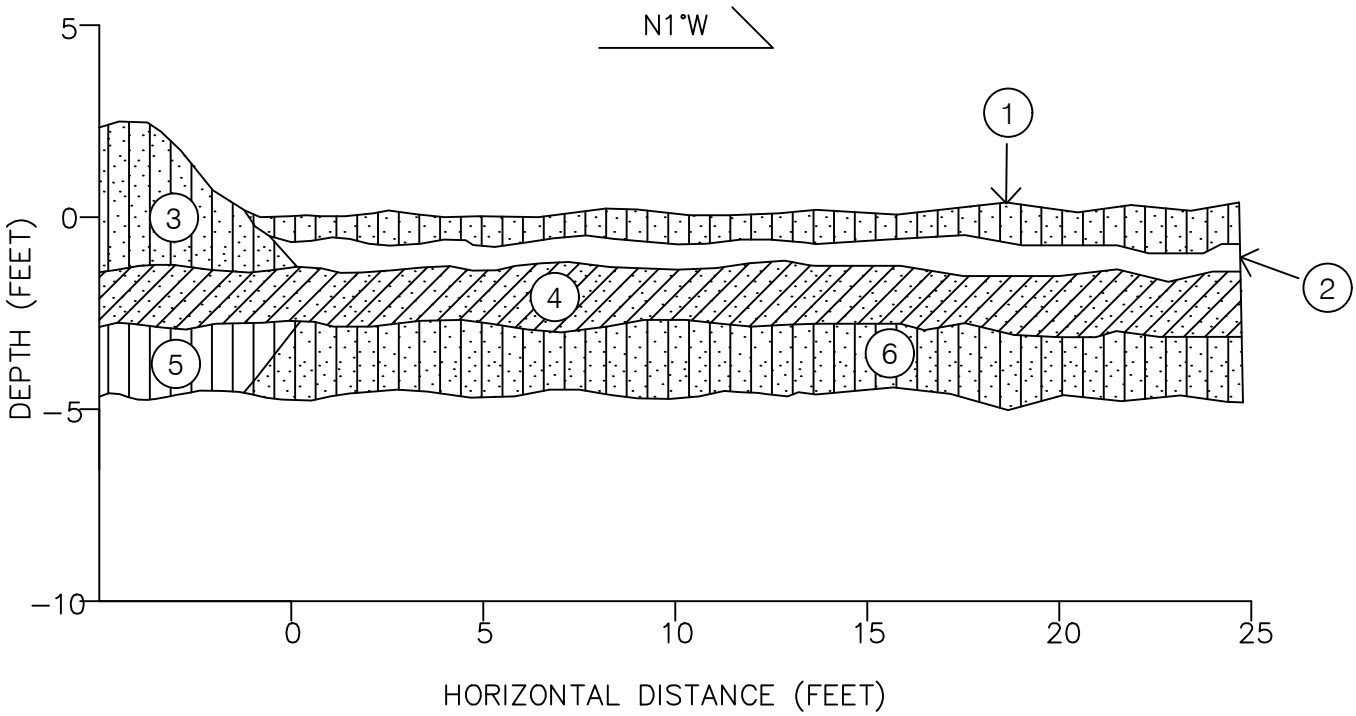
Figure Title: TEST PIT LOG LT-24

Project No.: 700045402
Date: 19 OCTOBER 2016
Scale: 1" = 5'
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Figure No.: A-?

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TEST PIT DESCRIPTION:

1. Brown, silty fine to coarse SAND, some fine to coarse gravel, (SM) moist.
2. Pink, cemented and hardened material, trace fine sand, suspected CKD, dry.
3. White, fine to coarse SAND, some silt, some fine to coarse gravel, (SM) dry.
4. Red, clayey fine to coarse SAND, some fine to coarse gravel, (SC) moist.
5. White, SILT, trace fine sand, cemented, (ML) dry.
6. Brown, silty fine to coarse SAND, some fine to coarse gravel, some cobbles, (SM) moist.

NOTES:

1. REFER TO FIGURE 2 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 20 SEPTEMBER 2016 AND BACKFILLED FOLLOWING OBSERVATION AND LOGGING

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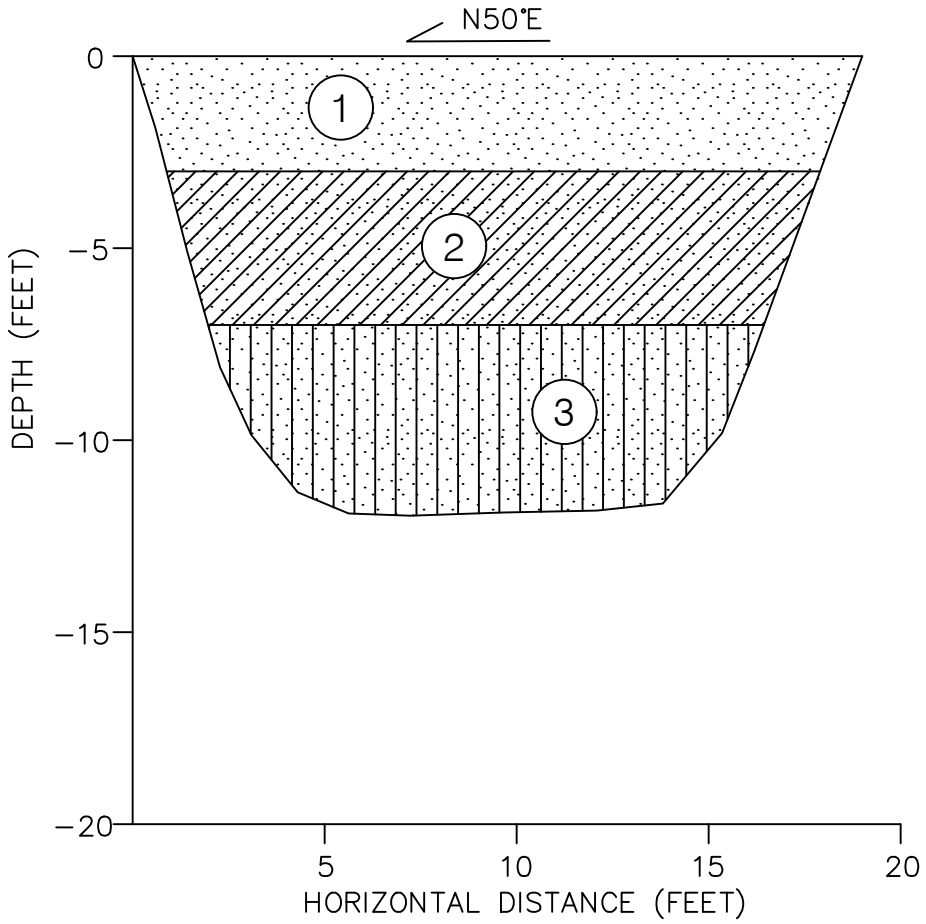
Figure Title: TEST PIT LOG LT-26

Project No. 700045403
Date 10 OCTOBER 2016
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TEST PIT DESCRIPTION:

1. Tan, fine to medium SAND, (SP), partially cemented materials
2. Light brown, fine to medium SAND, (SC), trace clay, partially cemented materials
3. Brown, fine to coarse silty SAND, (SM), trace gravel

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 20 SEPTEMBER 2016 AND BACKFILLED ON 20 SEPTEMBER 2016 USING A BACKHOE.

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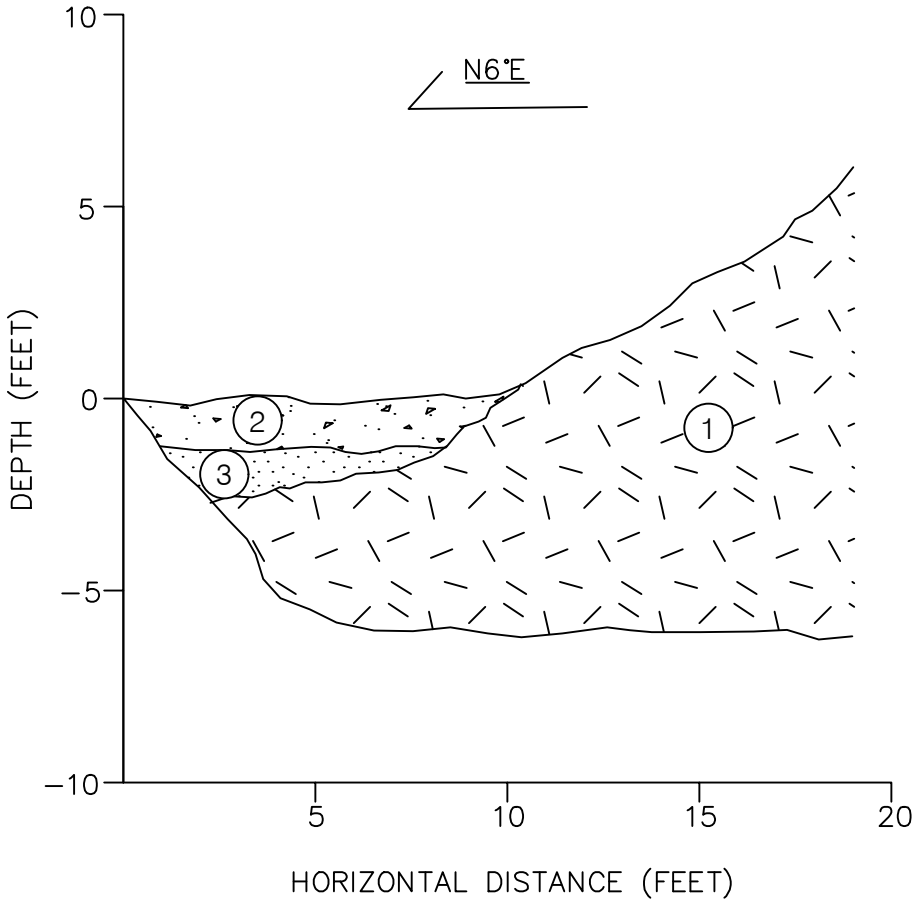
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Figure Title: TEST PIT LOG LT-27

Project No.	Figure No.
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TEST PIT DESCRIPTION:

(1) Brownish–white, decomposed granitic rock.

(2) 12" thick cement and concrete

(3) Tan, fine SAND, (SP) dry (mixed with harden cement pink material suspected CKD)

NOTES:

1. REFER TO FIGURE 2 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 19 SEPTMENBER 2016 AND BACKFILLED FOLLOWING OBSERVATION AND LOGGING.

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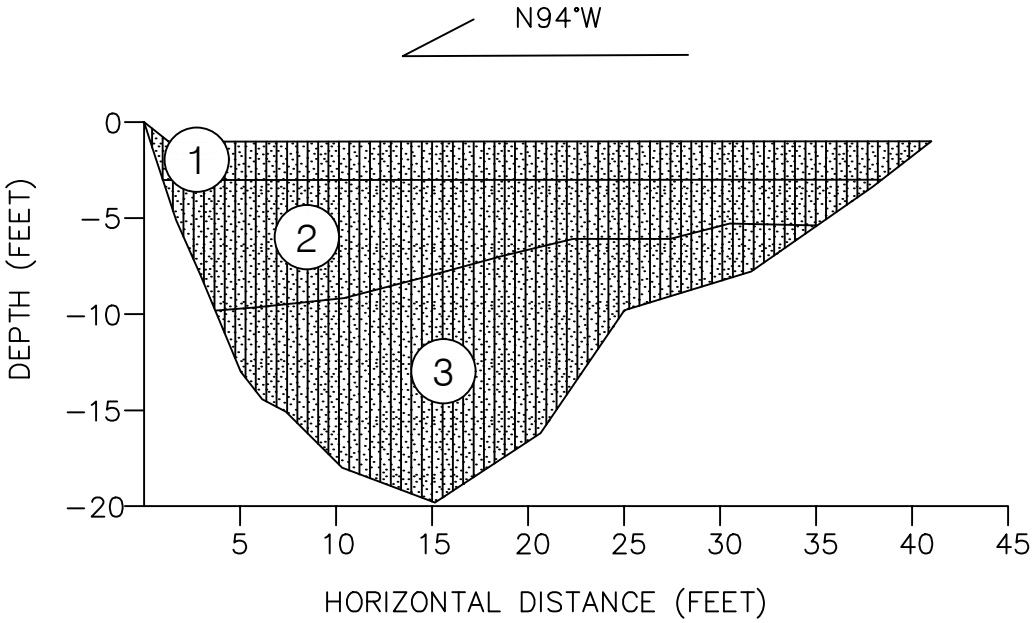
Figure Title: TEST PIT LOG LT-28

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Scale 1" = 5'
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TEST PIT DESCRIPTION:

1. Light brown, fine to coarse SAND, (SP), trace gravel
2. Tan, fine to medium SAND, (SP) and cement kiln dust (CKD)
3. Light brown, fine to coarse SAND, (SP), trace gravel

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 23 SEPTEMBER 2016 AND BACKFILLED ON 23 SEPTEMBER 2016 USING A BACKHOE.

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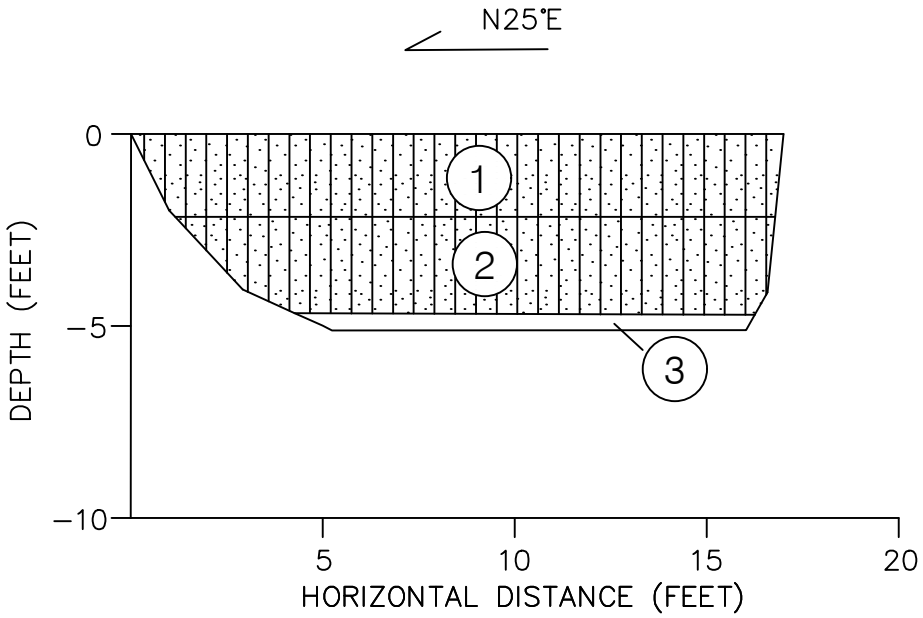
Figure Title: TEST PIT LOG LT-29

Project No. 700045402
Date 10 OCTOBER 2016
Scale 1" = 10'
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TEST PIT DESCRIPTION:

1. Brown, fine to coarse silty SAND, (SM).
2. Brown, fine to medium silty SAND, (SM), interspersed with (CKD).
3. Cemented materials (REFUSAL)

NOTES:

1. REFER TO FIGURE 3 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 23 SEPTEMBER 2016 AND BACKFILLED FOLLOWED OBSERVATION AND LOGGING.

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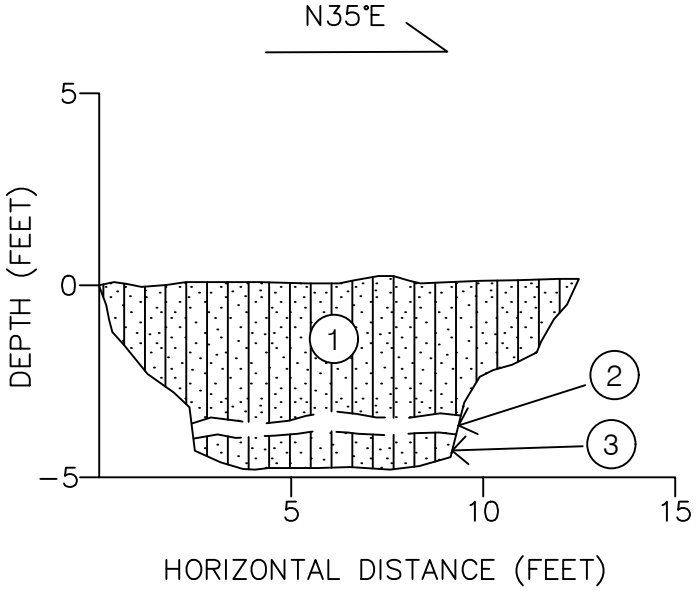
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Figure Title: TEST PIT LOG LT-30

Project No. 700045402
Date 19 OCTOBER 2016
Scale 1" = 5'
Drawn By SS

Figure No. A-?

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TEST PIT DESCRIPTION:

1. Pink–tan, silty fine to coarse SAND, some fine to coarse gravel, (SM) dry, plastic debris.
2. Pink, cement, brittle, crushed and turns to very fine powder, suspected CKD, dry.
3. Black–brown, silty fine to coarse SAND, (SM) dry

NOTES:

1. REFER TO FIGURE 2 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 21 SEPTEMEBER 2016 AND BACKFILLED FOLLOWING OBSERVATION AND LOGGING.

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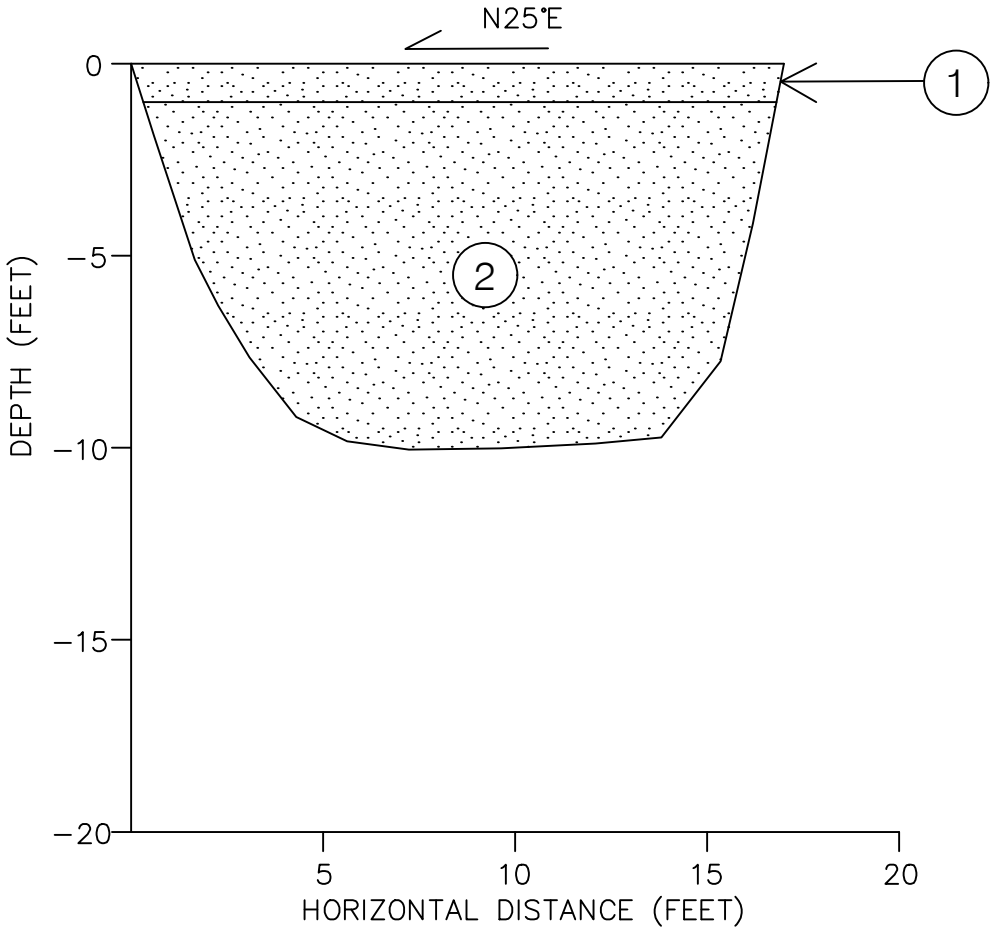
Figure Title: TEST PIT LOG LT-31

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Date 10 OCTOBER 2016
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TEST PIT DESCRIPTION:

(1) Light brown, fine to medium SAND, (SP), trace gravel

(2) Gray, fine to coarse SAND, (SP), trace gravel and partially cemented materials

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 20 SEPTEMBER 2016 AND BACKFILLED ON 20 SEPTEMBER 2016 USING A BACKHOE.

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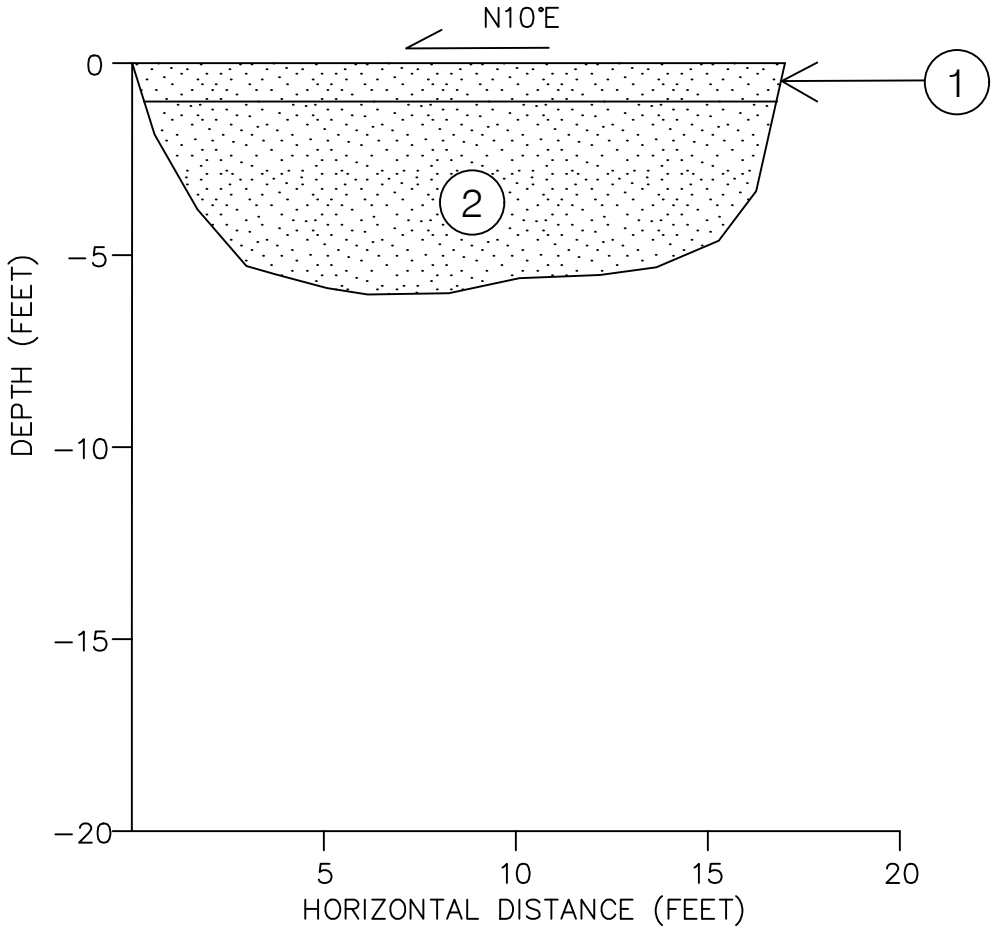
Figure Title: TEST PIT LOG LT-32

Project No.: 700045402
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TEST PIT DESCRIPTION:

(1) Tan, fine to medium SAND, (SP)

(2) Tan, fine to medium SAND, (SP), trace gravel and partially cemented materials

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 20 SEPTEMBER 2016 AND BACKFILLED ON 20 SEPTEMBER 2016 USING A BACKHOE.

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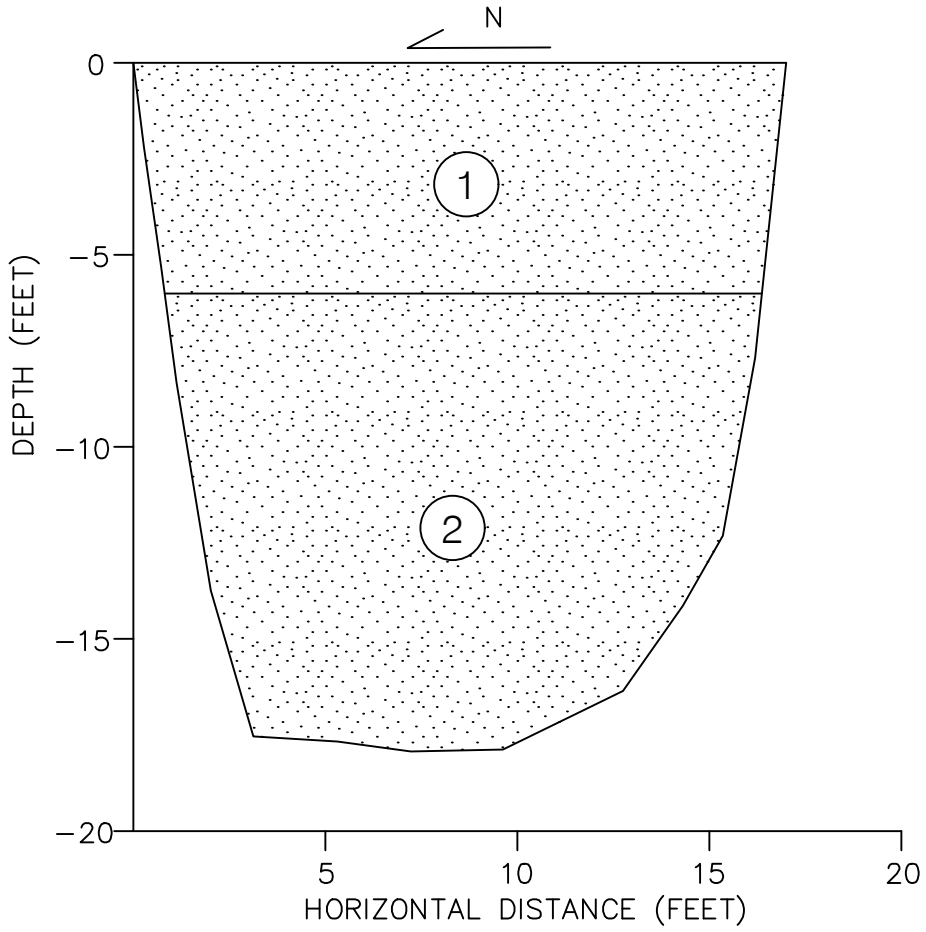
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Figure Title: TEST PIT LOG LT-33

Project No.	Figure No.
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TEST PIT DESCRIPTION:

(1) Tan, fine to medium SAND, (SP), tracel gravel

(2) Gravelly SAND, (SP), trace cobble

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 22 SEPTEMBER 2016 AND BACKFILLED ON 22 SEPTEMBER 2016 USING A BACKHOE.

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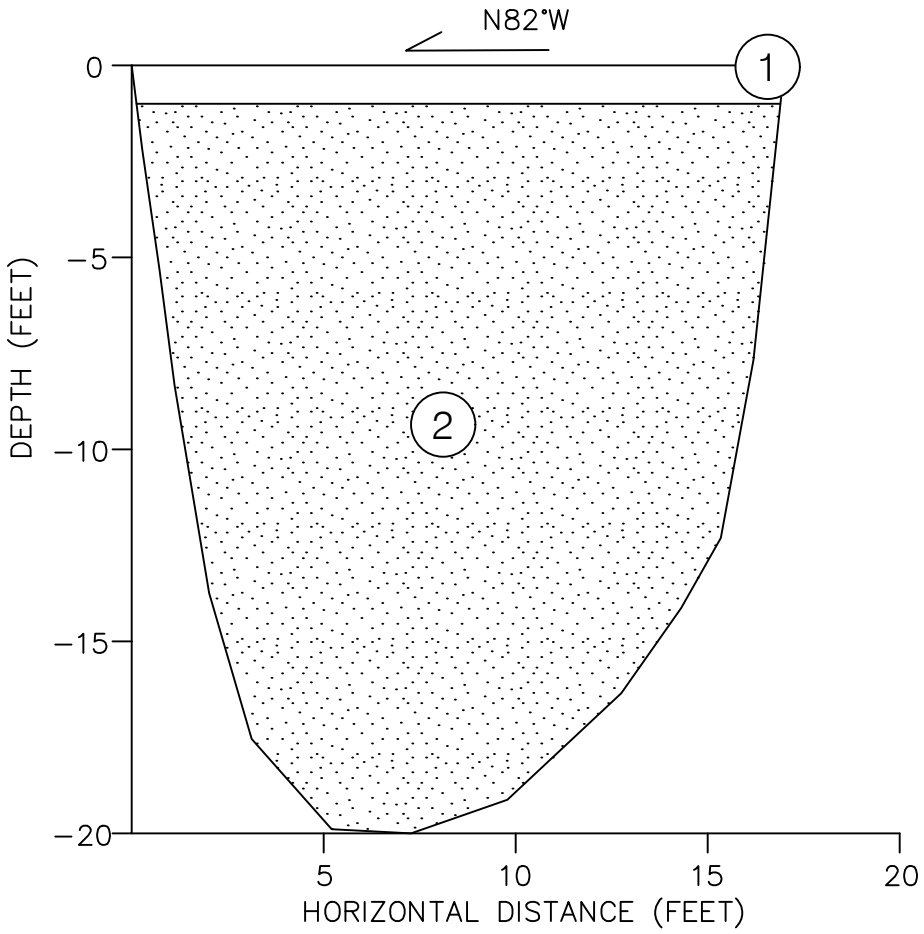
Figure Title: TEST PIT LOG LT-35

Project No.: 700045402
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TEST PIT DESCRIPTION:

1. Cemented materials "Hard–Pan"
2. Brown, fine to coarse SAND, (SP)

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 23 SEPTEMBER 2016 AND BACKFILLED ON 23 SEPTEMBER 2016 USING A BACKHOE.

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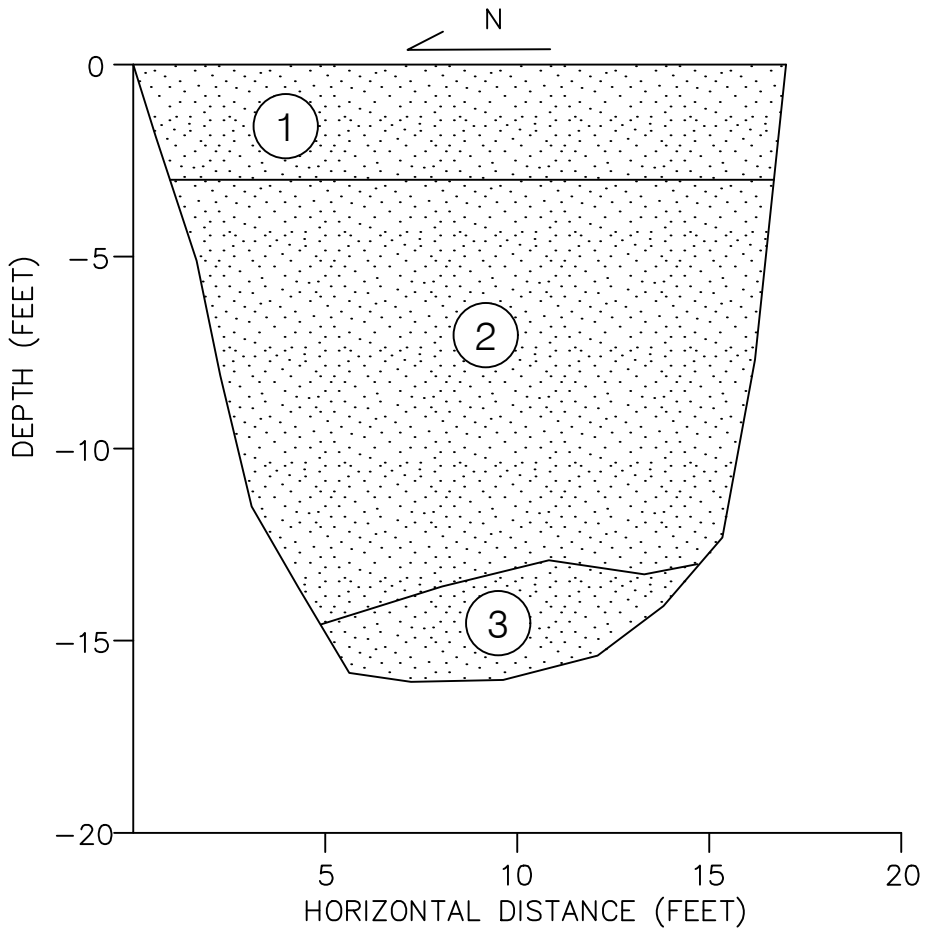
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Figure Title: TEST PIT LOG LT-36

Project No.	Figure No.
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TEST PIT DESCRIPTION:

1. Tan/Light grey, fine to coarse SAND (SP), trace gravel
2. Light brown, fine to coarse SAND, (SP)
3. Light brown, fine to coarse SAND, (SP), trace gravel

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED ON 27 SEPTEMBER 2016 USING A BACKHOE.

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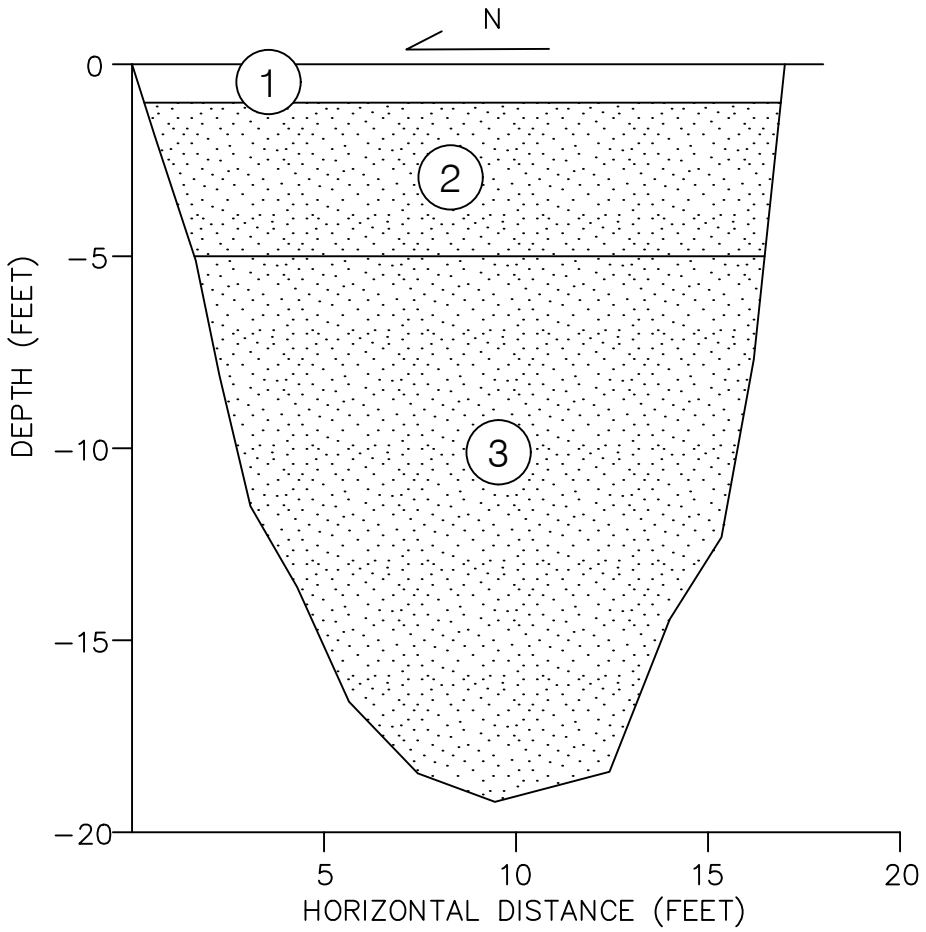
Figure Title: TEST PIT LOG LT-39

Project No.: 700045402
Date: 10 OCTOBER 2016
Scale: 1" = 5'
Drawn By: CBW

Figure No.: XX

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TEST PIT DESCRIPTION:

1. Light grey, partially cemented "hard pan"
2. Tan/Grey, fine to coarse SAND, (SP), trace gravel and cemented materials
3. Tan/Grey, medium to coarse SAND, (SP), trace gravel and cobble

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 26 SEPTEMBER 2016 AND BACKFILLED ON 26 SEPTEMBER 2016 USING A BACKHOE.

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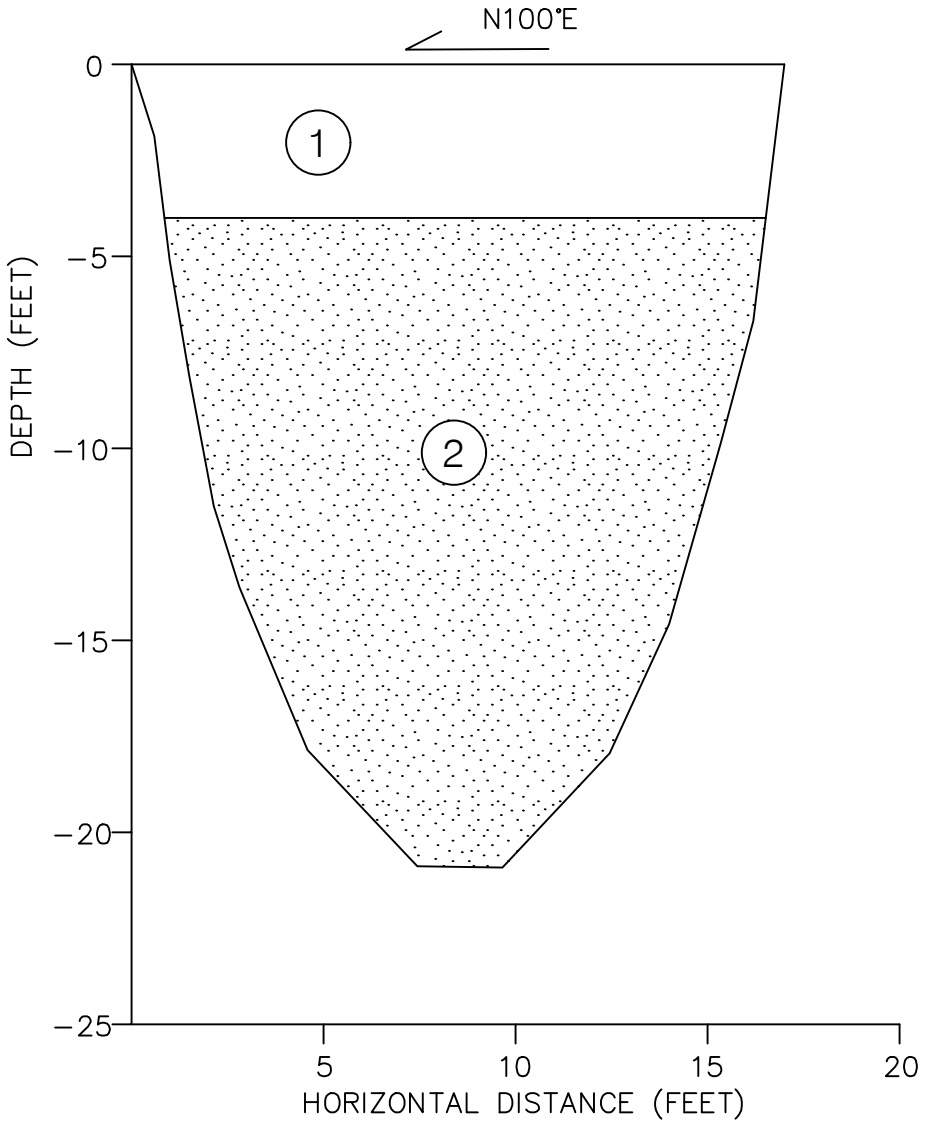
Figure Title: TEST PIT LOG LT-40

Project No.: 700045402
Date: 10 OCTOBER 2016
Scale: 1" = 5'
Drawn By: CBW

Figure No.: XX

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TEST PIT DESCRIPTION:

(1) Light grey, partially cemented materials and cement kiln dust (CKD) layers

(2) Tan/Brown, fine to coarse SAND, (SP), trace gravel and cobbles

NOTES:

1. REFER TO FIGURE 3 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED ON 27 SEPTEMBER 2016 USING A BACKHOE.

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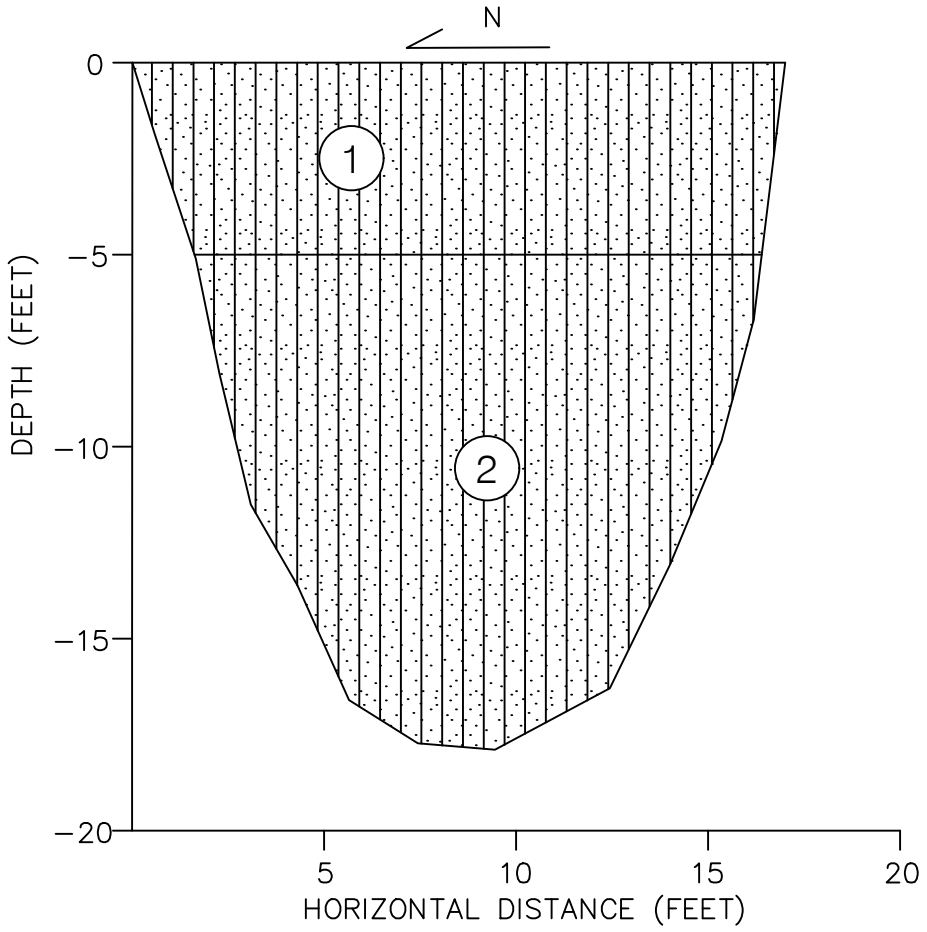
Figure Title: TEST PIT LOG LT-41

Project No. 700045402
Date 19 OCTOBER 2016
Scale 1" = 5'
Drawn By SS

Figure No. A-?

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TEST PIT DESCRIPTION:

(1) Tan, fine to coarse silty SAND, (SM)

(2) Tan, fine to coarse silty SAND, (SM), trace gravel

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 26 SEPTEMBER 2016 AND BACKFILLED ON 26 SEPTEMBER 2016 USING A BACKHOE.

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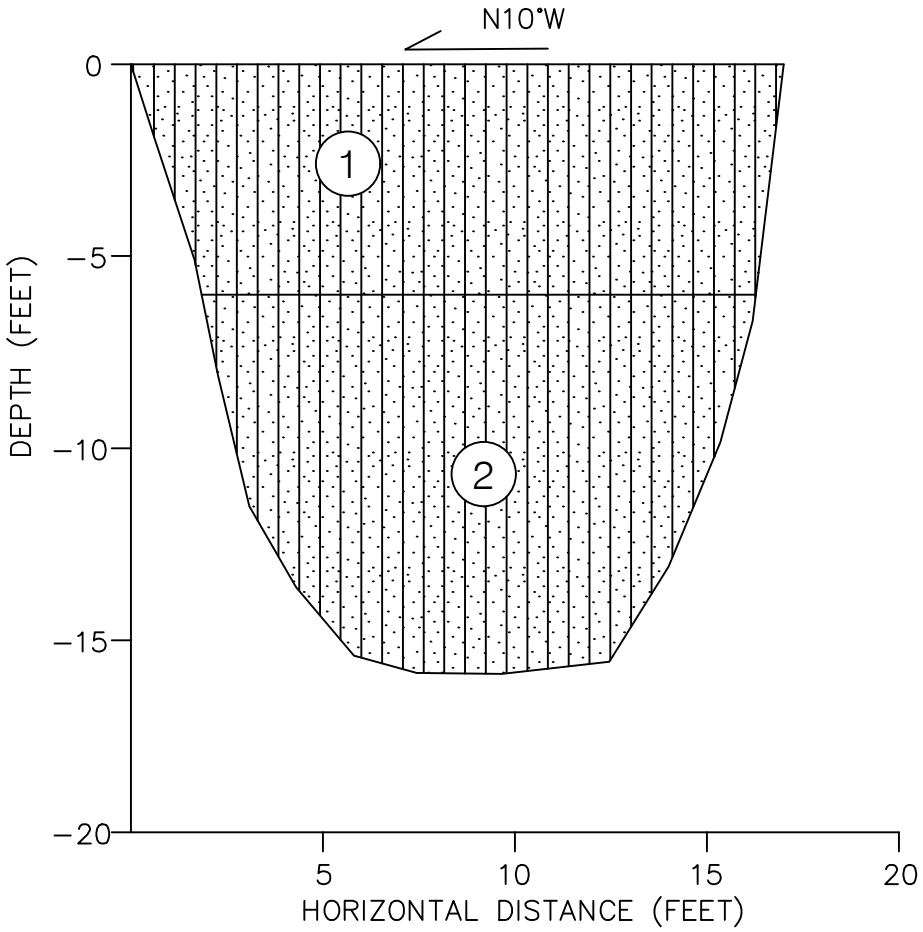
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Figure Title: TEST PIT LOG LT-42

Project No.	Figure No.
700045402	XX
Date: 10 OCTOBER 2016	
Scale: 1" = 5'	
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TEST PIT DESCRIPTION:

(1) Tan, fine to medium silty SAND, (SM)

(2) Tan, fine to coarse silty SAND, (SM), trace gravel and cobble

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 26 SEPTEMBER 2016 AND BACKFILLED ON 26 SEPTEMBER 2016 USING A BACKHOE.

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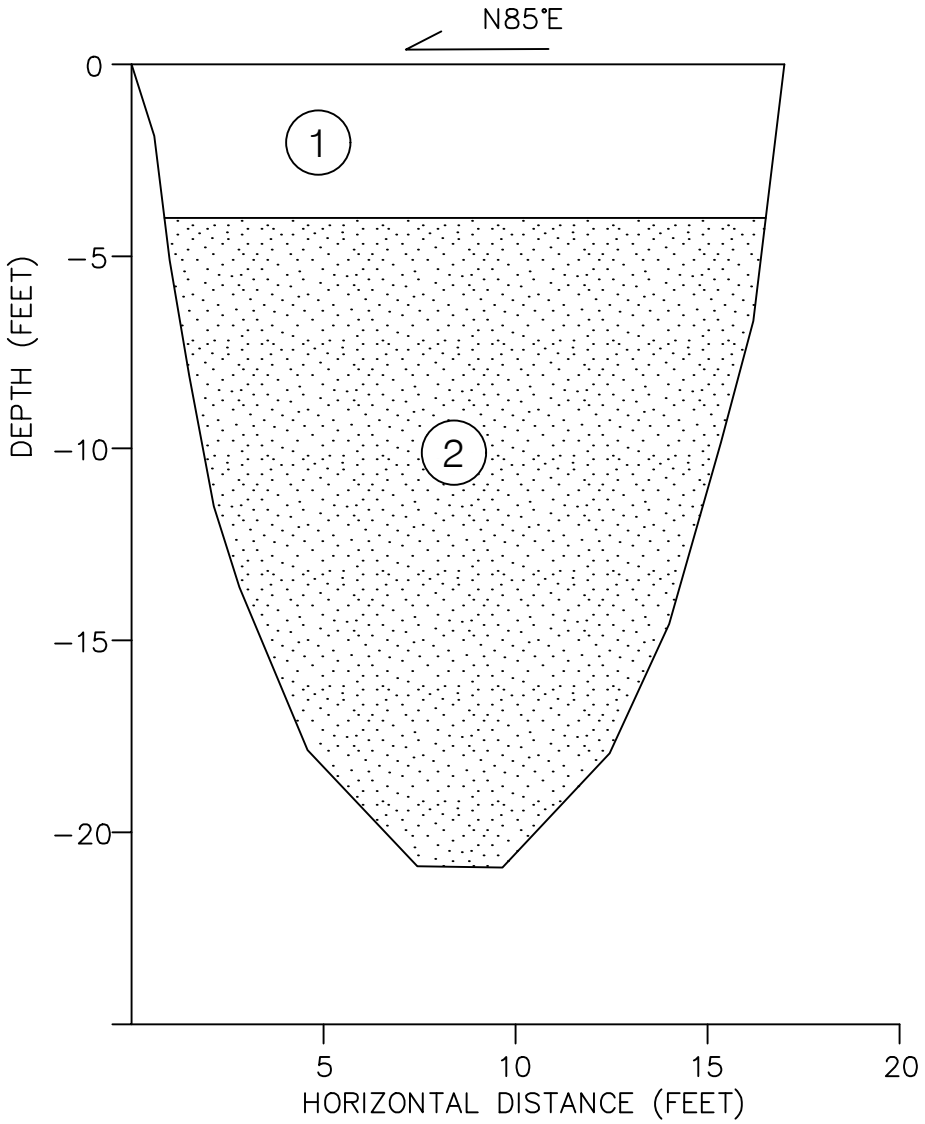
Figure Title: TEST PIT LOG LT-43

Project No.: 700045402
Date: 10 OCTOBER 2016
Scale: 1" = 5'
Drawn By: CBW

Figure No.: XX

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TEST PIT DESCRIPTION:

(1) Light grey, partially cemented materials and cement kiln dust (CKD) layers

(2) Tan/Brown, fine to coarse SAND, (SP), trace gravel and cobbles

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED ON 27 SEPTEMBER 2016 USING A BACKHOE.

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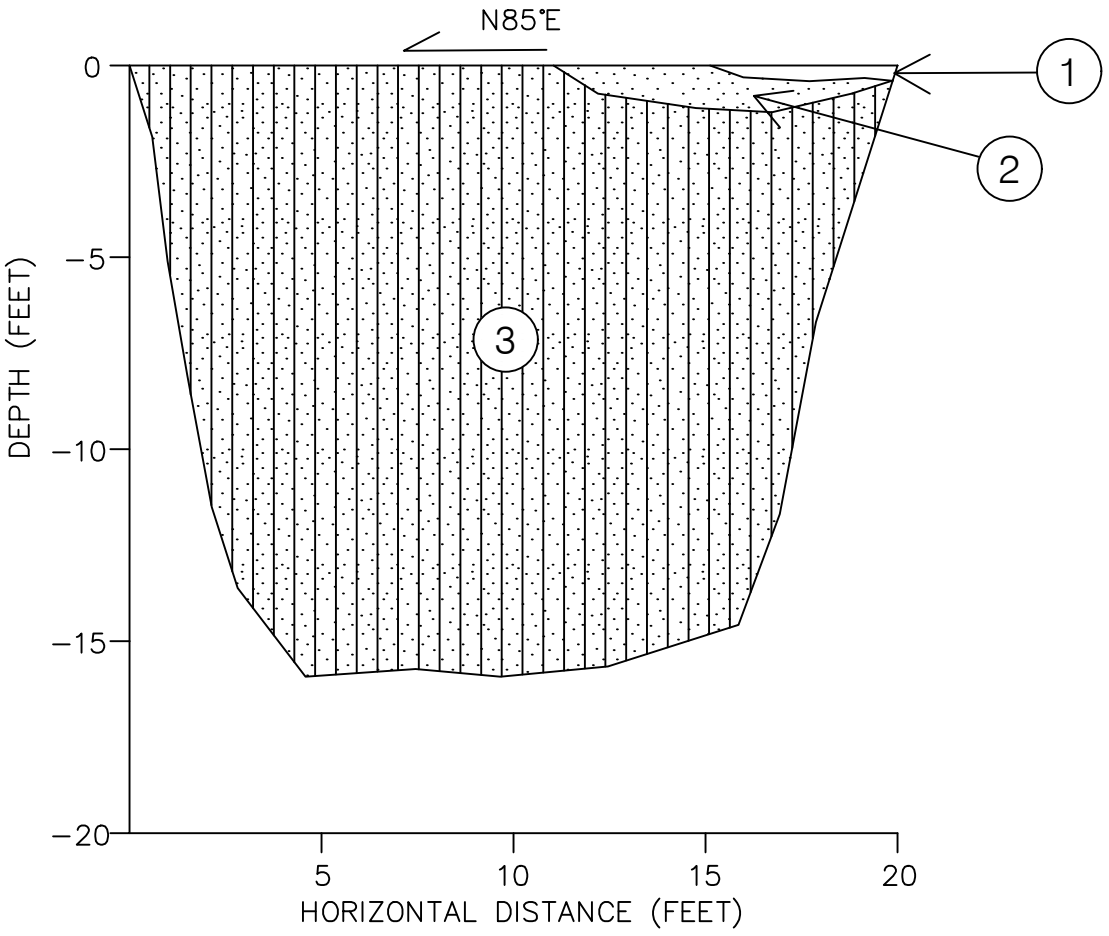
Figure Title: TEST PIT LOG LT-44

Project No. 700045402
Date 10 OCTOBER 2016
Scale 1" = 5'
Drawn By CBW

Figure No. XX

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TEST PIT DESCRIPTION:

1. "Hard–pan" / asphalt
2. Brown, fone to medium SAND, (SP)
3. Light brown, fine to medium SAND, (SM), trace clay and silt

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED ON 27 SEPTEMBER 2016 USING A BACKHOE.

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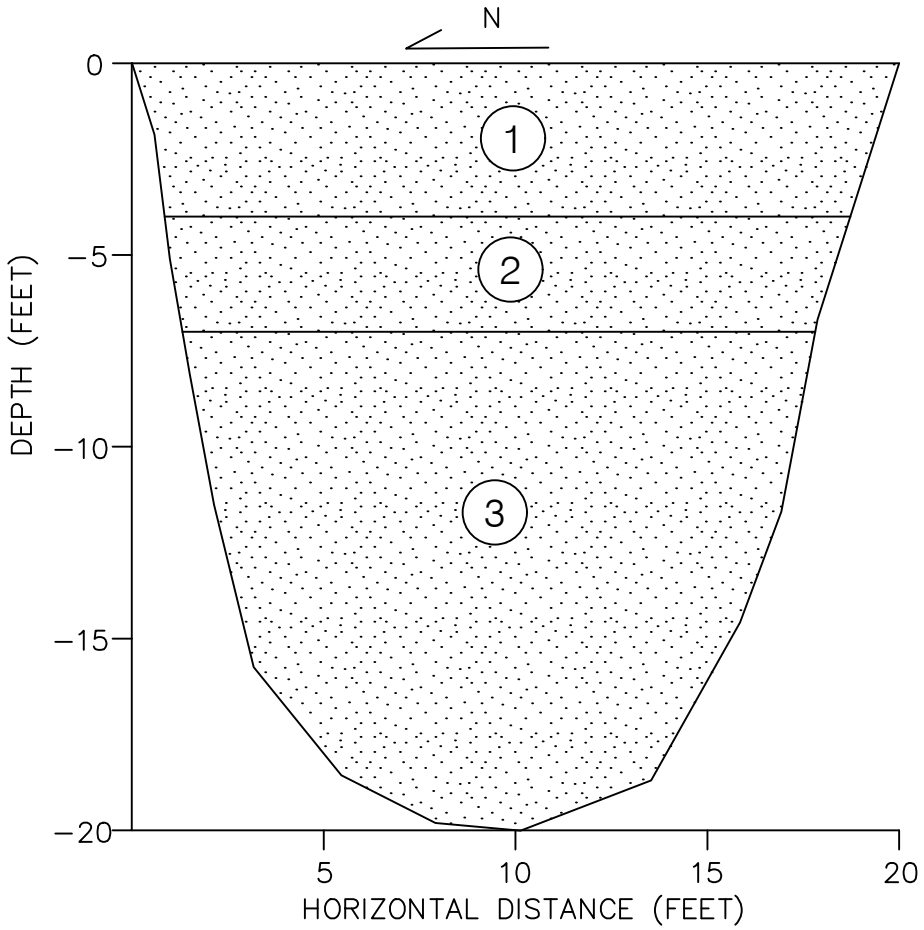
Figure Title: TEST PIT LOG LT-45

Project No. 700045402
Date 10 OCTOBER 2016
Scale 1" = 5'
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TEST PIT DESCRIPTION:

(1) Tan/Light Brown, fine to medium SAND, (SP)

(2) Tan/Light brown, fine to coarse SAND, (SP), trace gravel and cobble

(3) Tan/Light brown, fine to medium SAND, (SP), trace gravel and cobble

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED ON 27 SEPTEMBER 2016 USING A BACKHOE.

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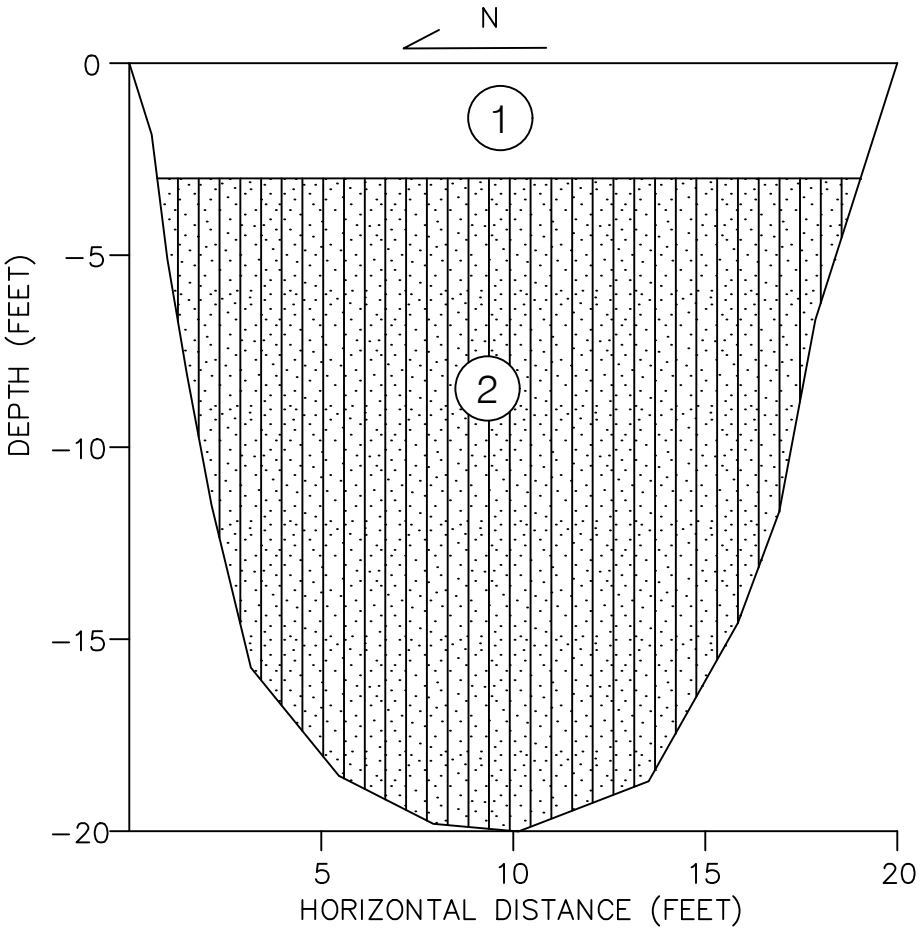
Figure Title: TEST PIT LOG LT-46

Project No. 700045402
Date 10 OCTOBER 2016
Scale 1" = 5'
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Figure No. XX

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TEST PIT DESCRIPTION:

1. White/Light grey, heavily cemented materials, "hard–pan"
2. Tan/Brown, fine to medium SAND, (SM), trace silt and clay

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 29 SEPTEMBER 2016 AND BACKFILLED ON 29 SEPTEMBER 2016 USING A BACKHOE.

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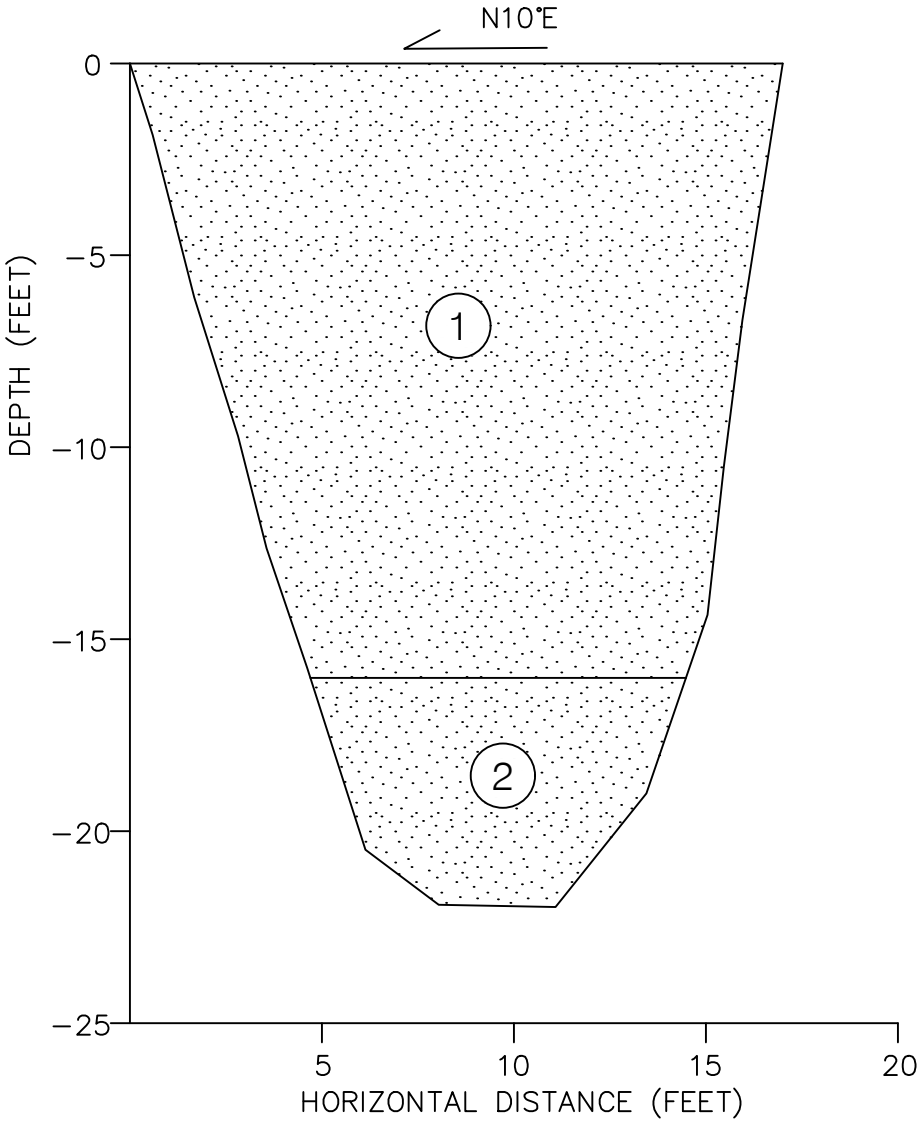
Figure Title: TEST PIT LOG LT-47

Project No. 700045402
Date 10 OCTOBER 2016
Scale 1" = 5'
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Figure No. XX

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TEST PIT DESCRIPTION:

(1) Light brown, fine to coarse SAND, (SP), trace gravel

(2) Light brown, medium to coarse SAND, (SP), trace gravel

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 29 SEPTEMBER 2016 AND BACKFILLED ON 29 SEPTEMBER 2016 USING A BACKHOE.

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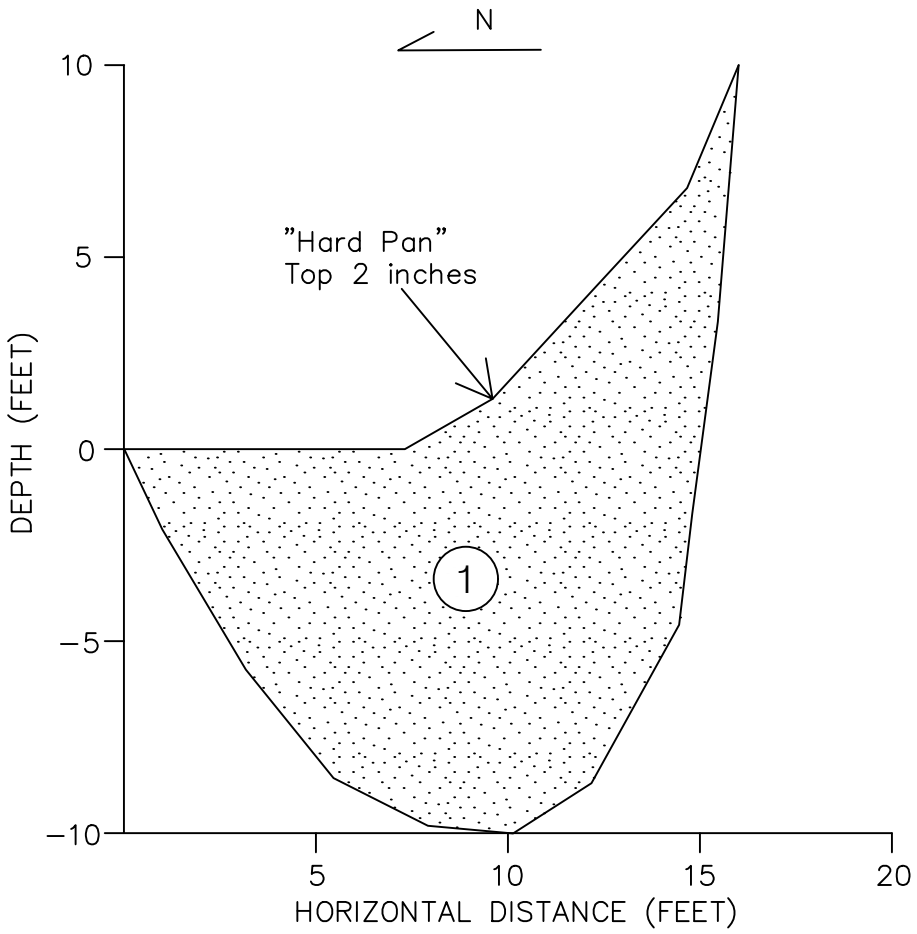
Figure Title: TEST PIT LOG LT-Sewer

Project No.: 700045402
Date: 10 OCTOBER 2016
Scale: 1" = 5'
Drawn By: CBW

Figure No.: XX

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TEST PIT DESCRIPTION:

(1) Tan, fine to coarse SAND, (SP)

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 29 SEPTEMBER 2016 AND BACKFILLED ON 29 SEPTEMBER 2016 USING A BACKHOE.

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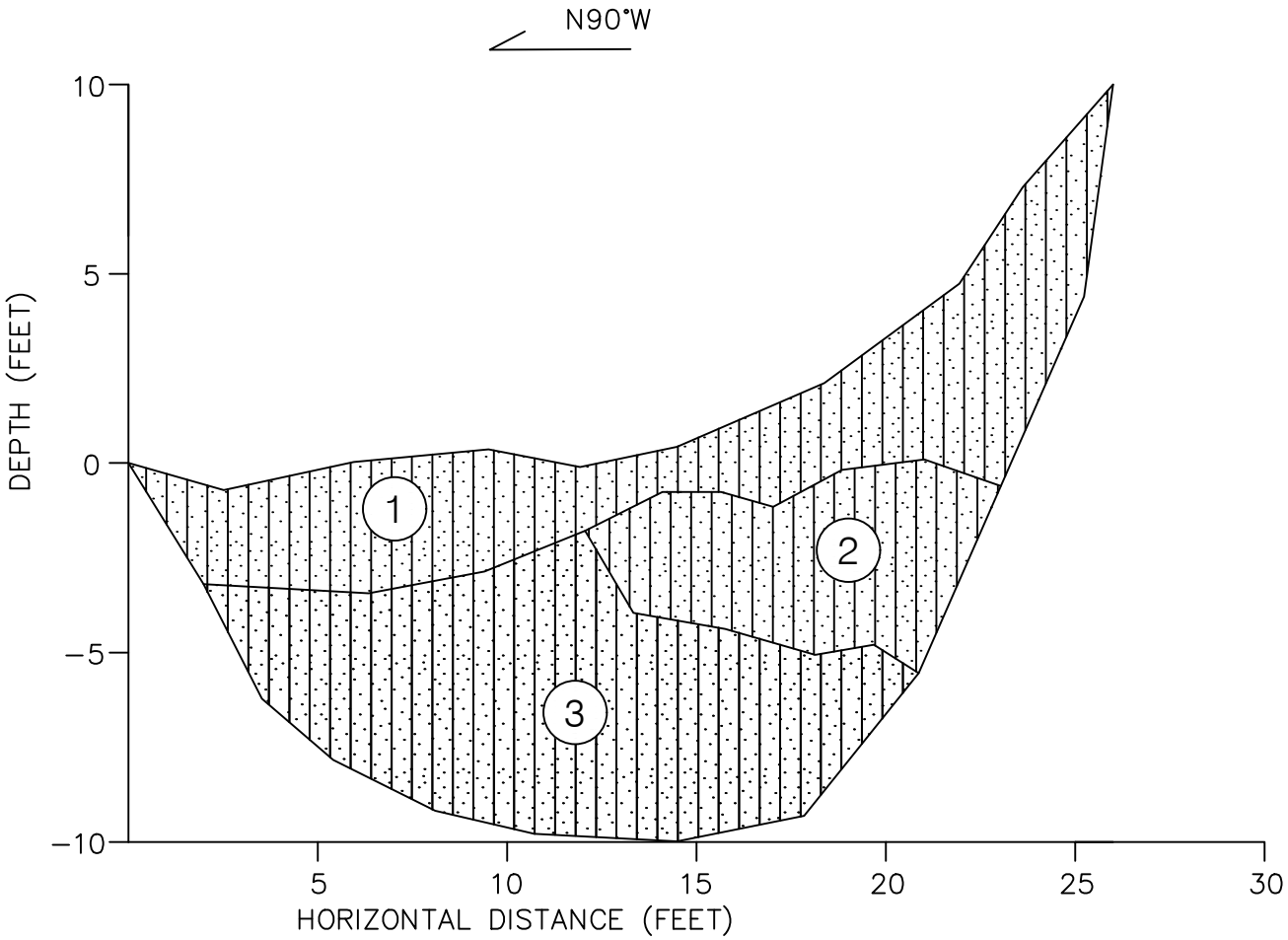
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Figure Title: TEST PIT LOG LT-cBermA

Project No.	Figure No.
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TEST PIT DESCRIPTION:

(1) Tan, fine silty SAND, (SM), trace cement kiln dust (CKD)

(2) Tan, fine silty SAND, (SM), with cement kiln dust (CKD)

(3) Tan, fine silty SAND, (SM), trace cement kiln dust (CKD)

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 28 SEPTEMBER 2016 AND BACKFILLED ON 28 SEPTEMBER 2016 USING A BACKHOE.

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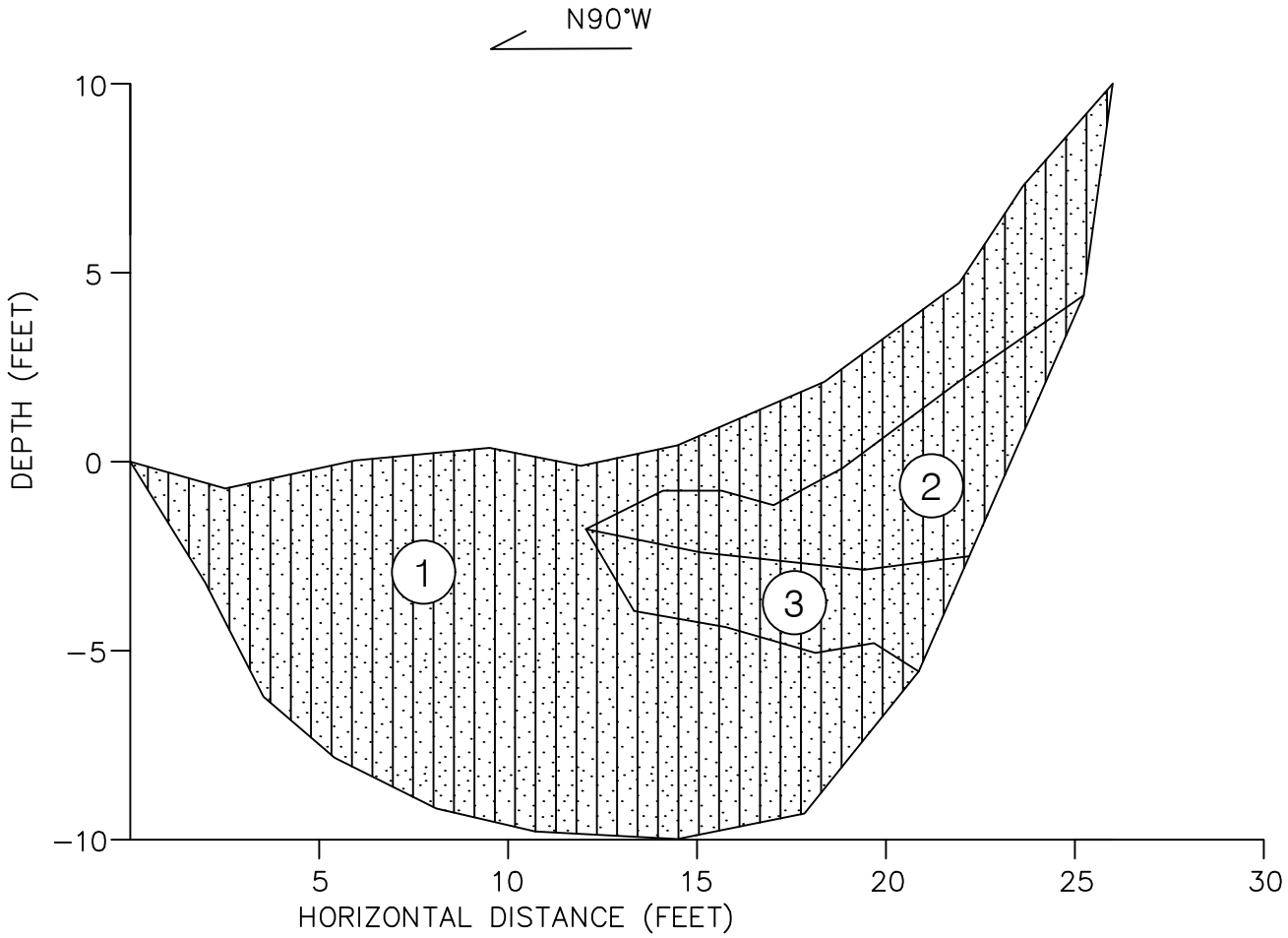
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Figure Title: TEST PIT LOG LT-EBermC

Project No.	Figure No.
700045402	XX
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Scale: 1" = 5'	
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TEST PIT DESCRIPTION:

(1) Tan, fine to medium silty SAND, (SM), trace cement kiln dust (CKD) pockets

(2) Tan, fine to medium silty SAND, (SM), some cement kiln dust (CKD) pockets

(3) Tan, fine to medium silty SAND, (SM), trace cement kiln dust (CKD) pockets

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 28 SEPTEMBER 2016 AND BACKFILLED ON 28 SEPTEMBER 2016 USING A BACKHOE.

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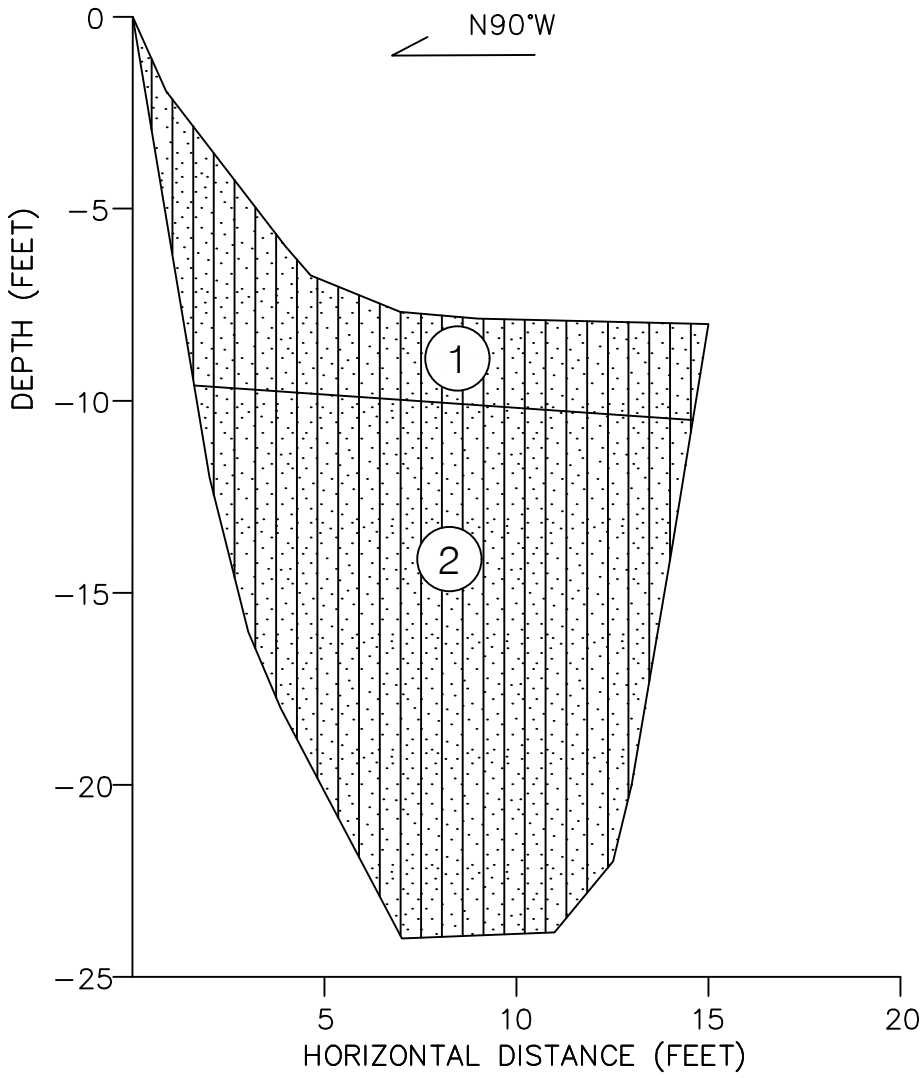
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Figure Title: TEST PIT LOG LT-EBermD

Project No.	Figure No.
700045402	XX
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TEST PIT DESCRIPTION:

(1) Light tan, fine silty SAND, (SM)l

(2) Light tan, fine silty SAND, (SM), contains cement kiln dust pockets

NOTES:

1. REFER TO FIGURE 3 FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 27 SEPTEMBER 2016 AND BACKFILLED FOLLOWED OBSERVATION AND LOGGING.

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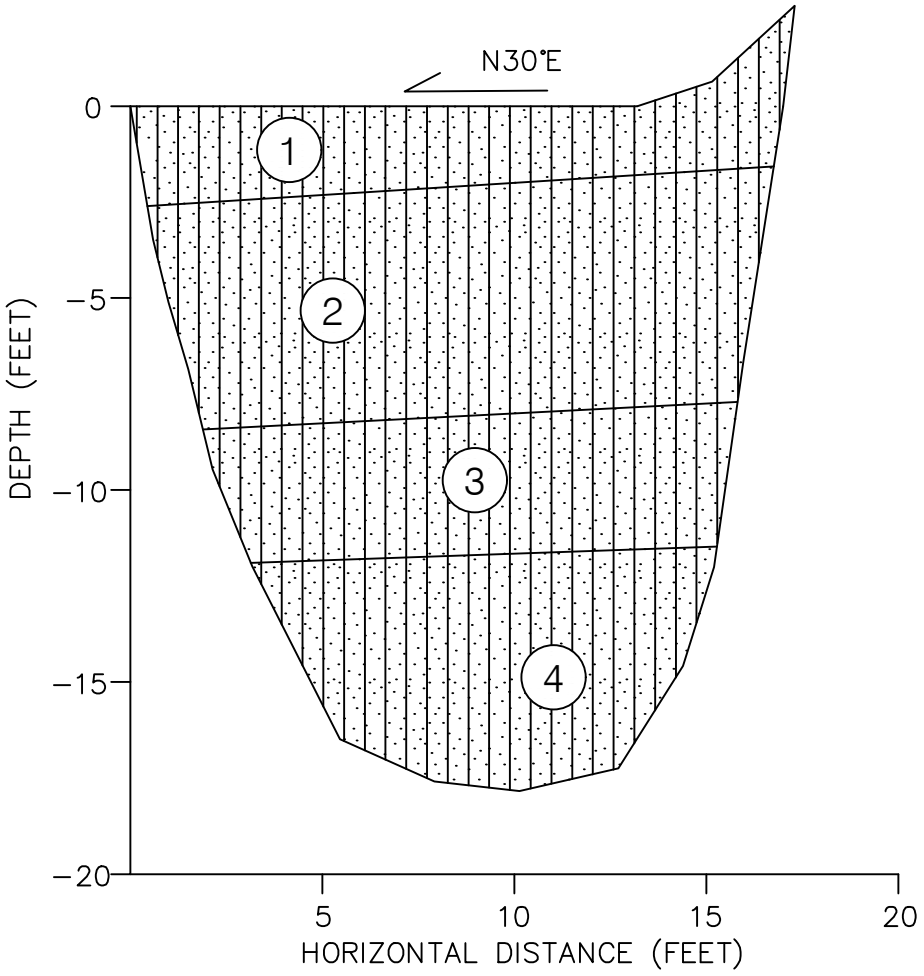
Figure Title: TEST PIT LOG LT-MW1A

Project No.	700045402
Date	19 OCTOBER 2016
Scale	1" = 5'
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Figure No.: A-?

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TEST PIT DESCRIPTION:

(1) Light tan, fine silty SAND, (SM), contains cement kiln dust (CKD) pockets

(2) Light tan, fine silty SAND, (SM), contains cement kiln dust (CKD) pockets

(3) Light tan, fine silty SAND, (SM), contains cement kiln dust (CKD) pockets

(4) Light tan, fine silty SAND, (SM), contains cement kiln dust (CKD) pockets

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 28 SEPTEMBER 2016 AND BACKFILLED ON 28 SEPTEMBER 2016 USING A BACKHOE.

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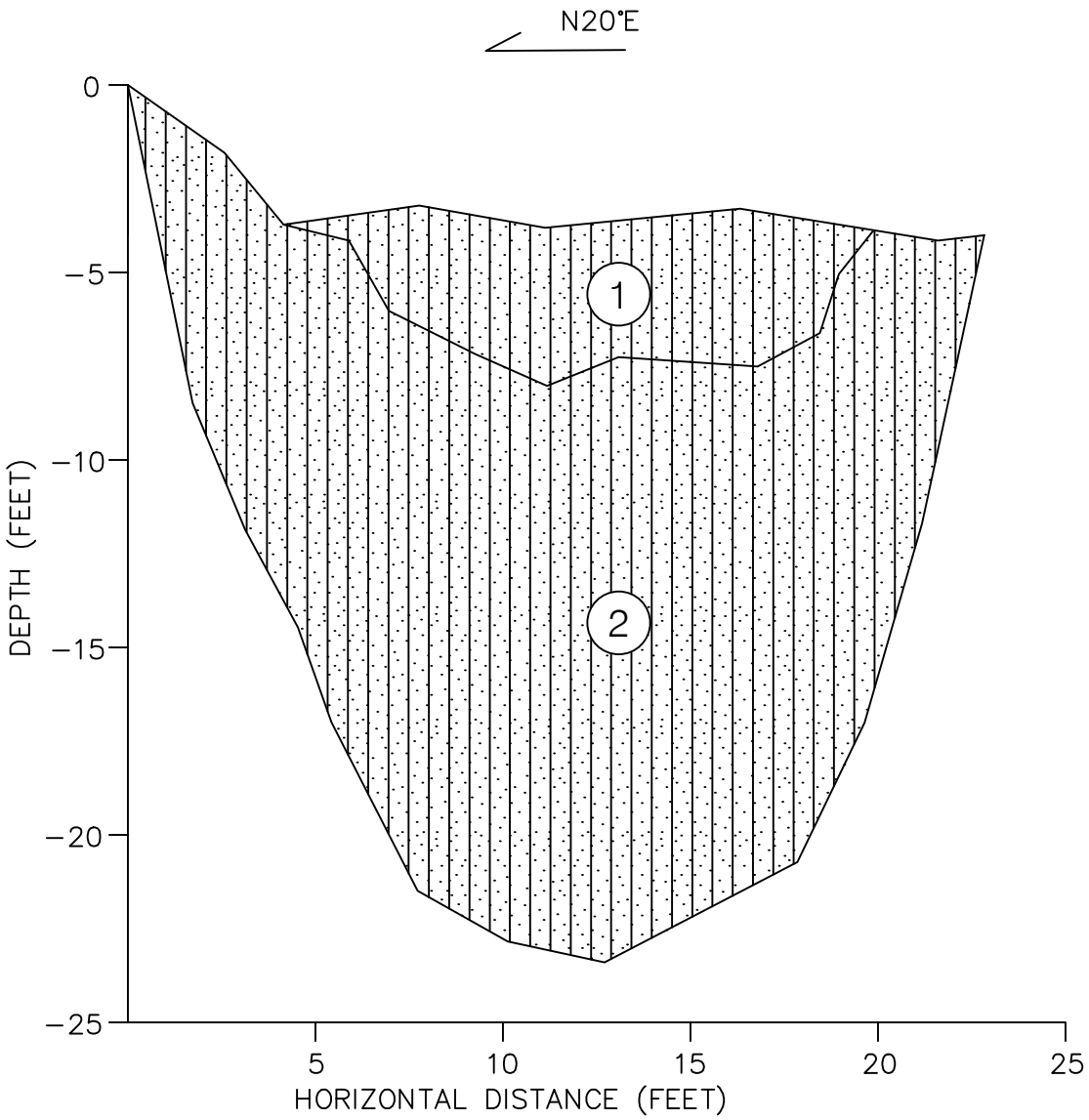
Figure Title: TEST PIT LOG LT-MW1B

Project No. 700045402
Date 10 OCTOBER 2016
Scale 1" = 5'
Drawn By CBW

Figure No. XX

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Filename: \\langan.com\data\IRV\data4\700045402\Cadd Data - 700045402\DesignFiles\700045402 Test Pit Logs.dwg Date: 10/10/2016 Time: 11:42 User: djudge Style Table: Langan.stb Layout: LT-MW1B



TEST PIT DESCRIPTION:

(1) Tan, fine to medium silty SAND, (SM), some cement kiln dust pockets

(2) Tan, fine to medium silty SAND, (SM), trace cement kiln dust pockets

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 28 SEPTEMBER 2016 AND BACKFILLED ON 28 SEPTEMBER 2016 USING A BACKHOE.

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ABU DHABI ATHENS DOHA DUBAI ISTANBUL LONDON PANAMA
Langan Engineering & Environmental Services, Inc.

Project: AGUA MANSA COMMERCE PARK
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

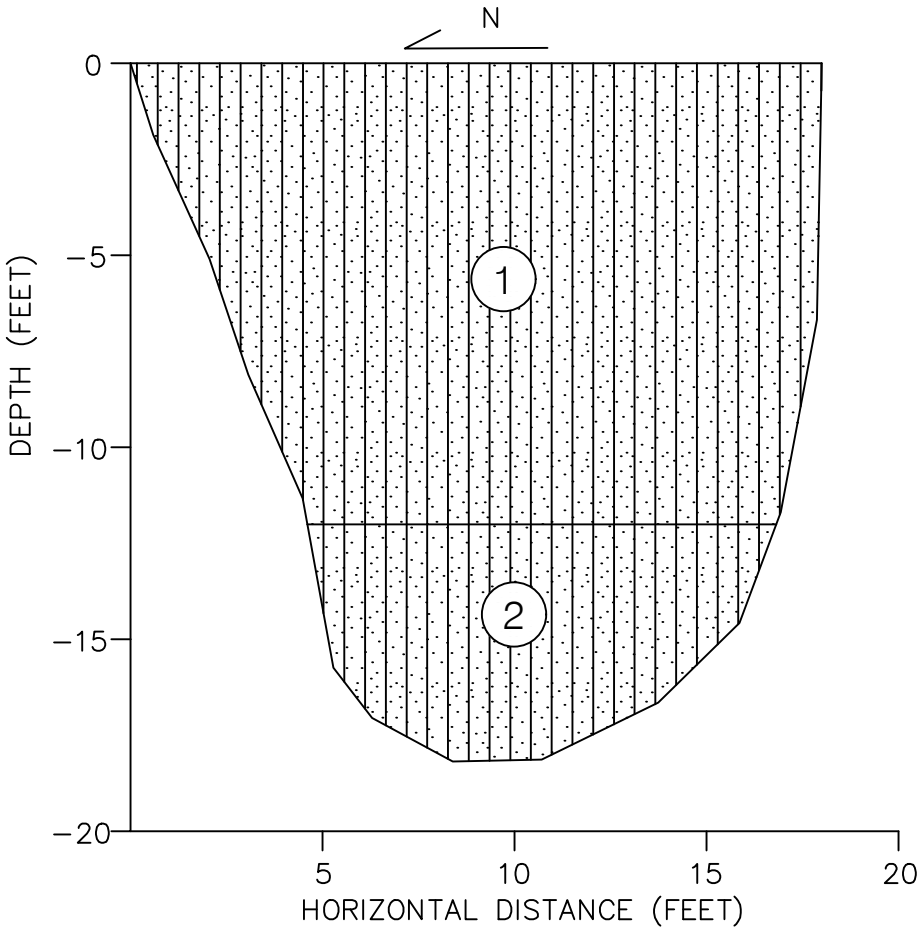
Figure Title: TEST PIT LOG LT-MW1C

Project No.: 700045402
Date: 10 OCTOBER 2016
Scale: 1" = 5'
Drawn By: CBW

Figure No.: XX

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Filename: \\langan.com\data\IRV\data4\700045402\Cadd Data - 700045402\DesignFiles\700045402 Test Pit Logs.dwg Date: 10/10/2016 Time: 11:57 User: djudge Style Table: Langan.stb Layout: LT-MW1C



TEST PIT DESCRIPTION:

(1) Tan, fine silty SAND, (SM)

(2) Tan, fine silty SAND, (SM), trace cement kiln dust (CKD)

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 28 SEPTEMBER 2016 AND BACKFILLED ON 28 SEPTEMBER 2016 USING A BACKHOE.

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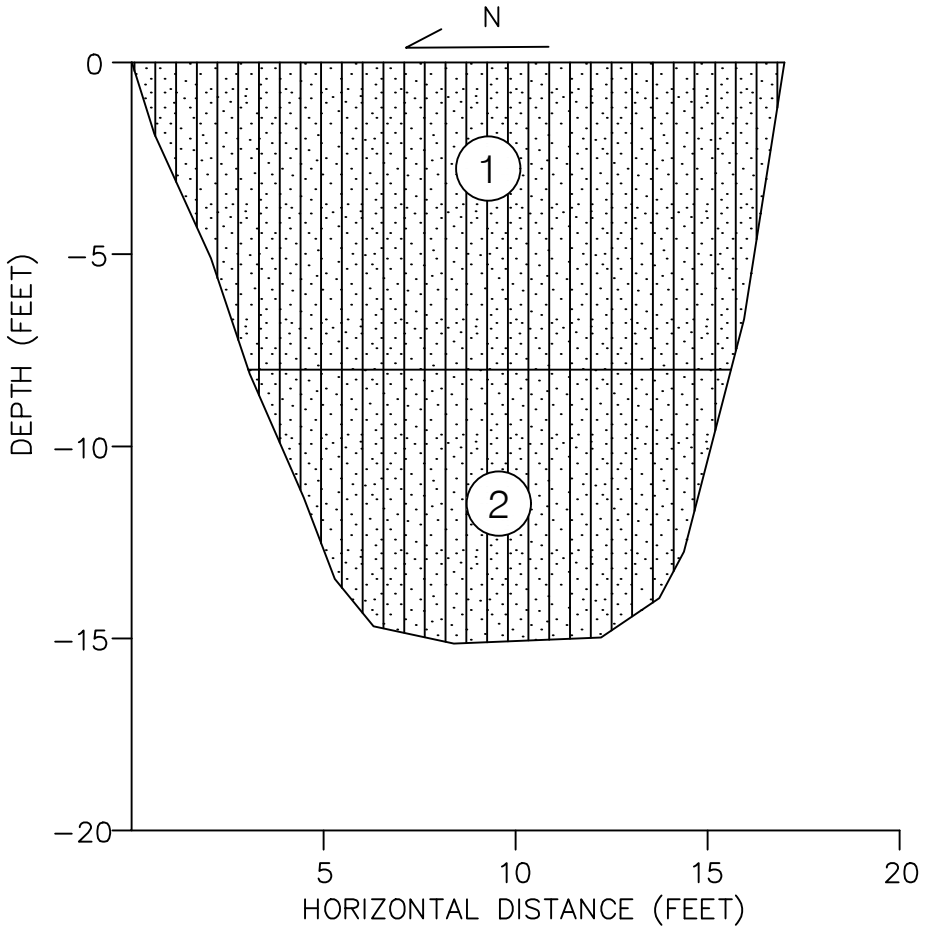
Figure Title: TEST PIT LOG LT-NBermA

Project No.: 700045402
Date: 10 OCTOBER 2016
Scale: 1" = 5'
Drawn By: CBW

Figure No.: XX

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Filename: \\langan.com\data\IRV\data4\700045402\Cadd Data - 700045402\Design Files\700045402 Test Pit Logs.dwg Date: 10/10/2016 Time: 13:59 User: djudge Style Table: Langan.stb Layout: LT-NBermA



TEST PIT DESCRIPTION:

(1) Light grey, fine to medium silty SAND, (SM), trace gravel

(2) Tan, fine to medium silty SAND, (SM), trace cement kiln dust (CKD)

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 28 SEPTEMBER 2016 AND BACKFILLED ON 28 SEPTEMBER 2016 USING A BACKHOE.

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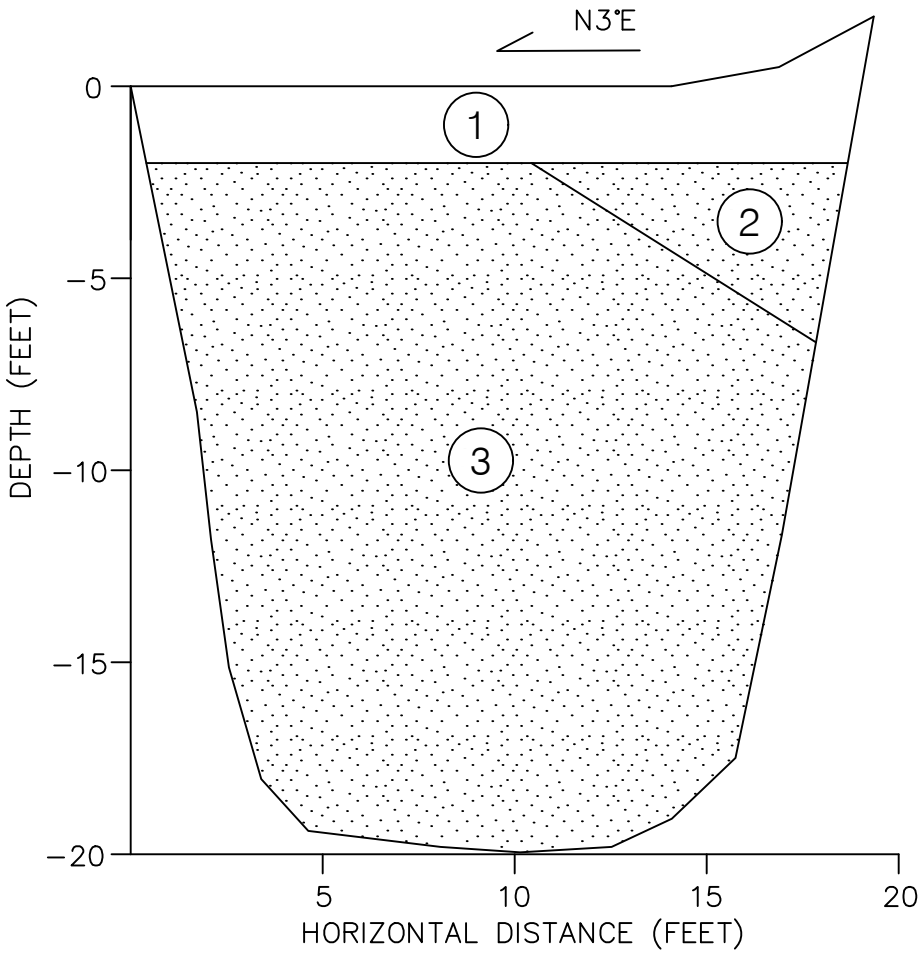
Figure Title: TEST PIT LOG LT-NBermB

Project No. 700045402
Date 10 OCTOBER 2016
Scale 1" = 5'
Drawn By CBW

Figure No. XX

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Filename: \\langan.com\data\IRV\data4\700045402\Cadd Data - 700045402\Design Files\700045402 Test Pit Logs.dwg Date: 10/10/2016 Time: 14:12 User: djudge Style Table: Langan.stb Layout: LT-NBermB



TEST PIT DESCRIPTION:

1. White/Light gray, partially cemented "Hard Pan"
2. Dark grey, fine to medium SAND, (SP), trace gravel and coal
3. Tan, fine to medium SAND, (SP), trace gravel

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 28 SEPTEMBER 2016 AND BACKFILLED ON 28 SEPTEMBER 2016 USING A BACKHOE.

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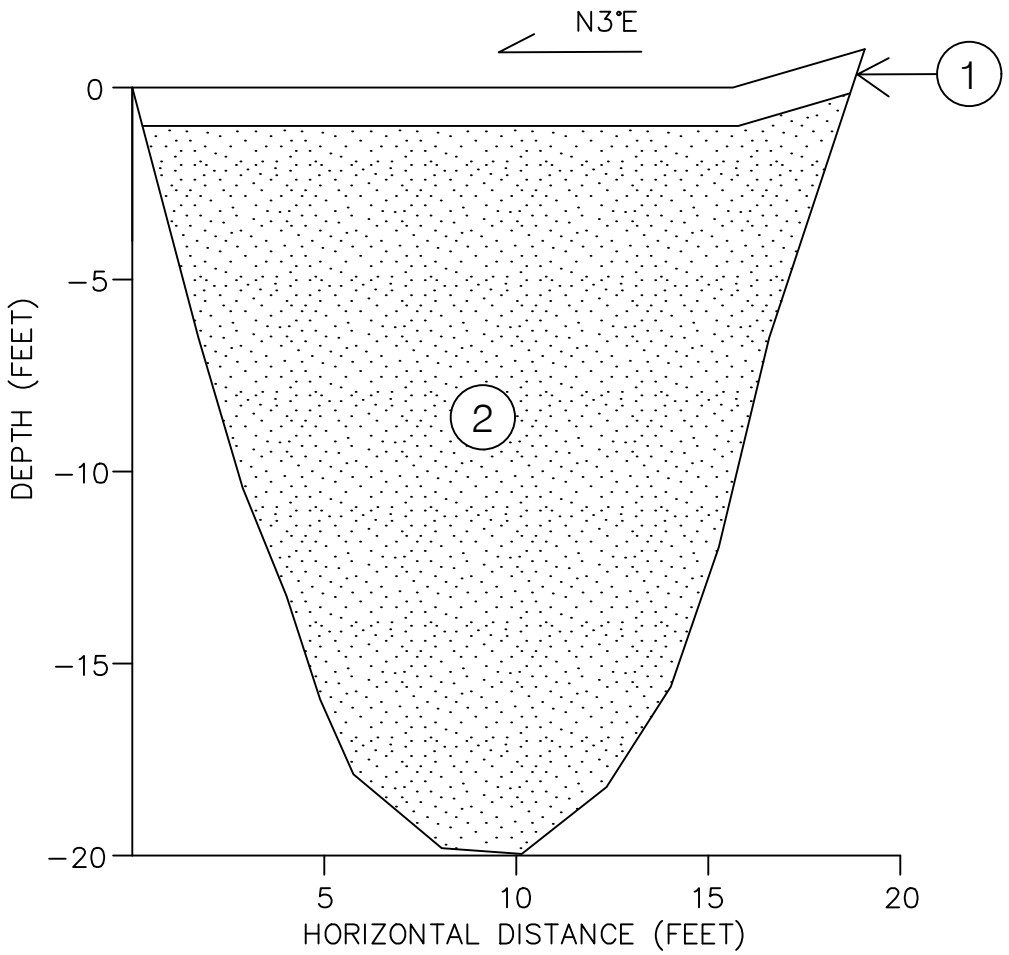
Figure Title: TEST PIT LOG LT-SBermA

Project No.: 700045402
Date: 10 OCTOBER 2016
Scale: 1" = 5'
Drawn By: CBW

Figure No.: XX

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Filename: \\langan.com\data\IRV\data4\700045402\Cadd Data - 700045402\Design Files\700045402 Test Pit Logs.dwg Date: 10/10/2016 Time: 13:00 User: djudge Style Table: Langan.stb Layout: LT-SBermA



TEST PIT DESCRIPTION:

(1) White/Light gray, partially cement "hard pan"

(2) Tan/Light brown, fine to coarse SAND, (SP), trace gravel

NOTES:

1. REFER TO FIGURE # FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 28 SEPTEMBER 2016 AND BACKFILLED ON 28 SEPTEMBER 2016 USING A BACKHOE.

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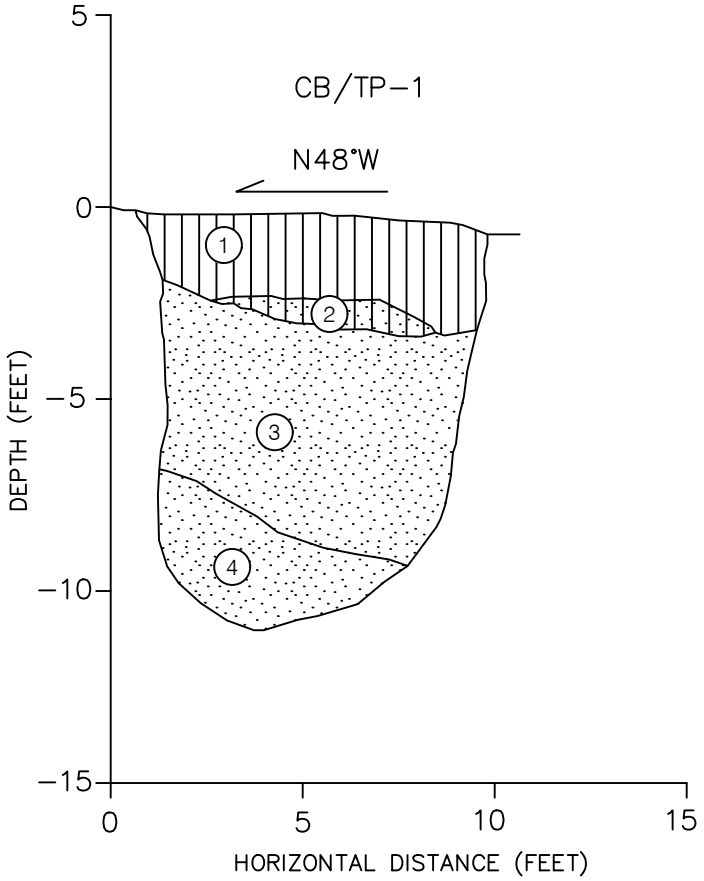
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Figure Title: TEST PIT LOG LT-SBermB

Project No.	Figure No.
700045402	XX
Date: 10 OCTOBER 2016	
Scale: 1" = 5'	
Drawn By: CBW	

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TEST PIT DESCRIPTION:

1. Light brown, clayey SILT, trace fine sand, (ML), dry
2. Grey, silty fine SAND, (SM), moist
3. Dark brown, fine SAND, (SP) moist
4. Dark brown, medium to coarse SAND, (SP), moist

NOTES:

1. REFER TO FIGURE xx FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 10 APRIL 2017 AND BACKFILLED AFTER OBSERVATION AND LOGGING.

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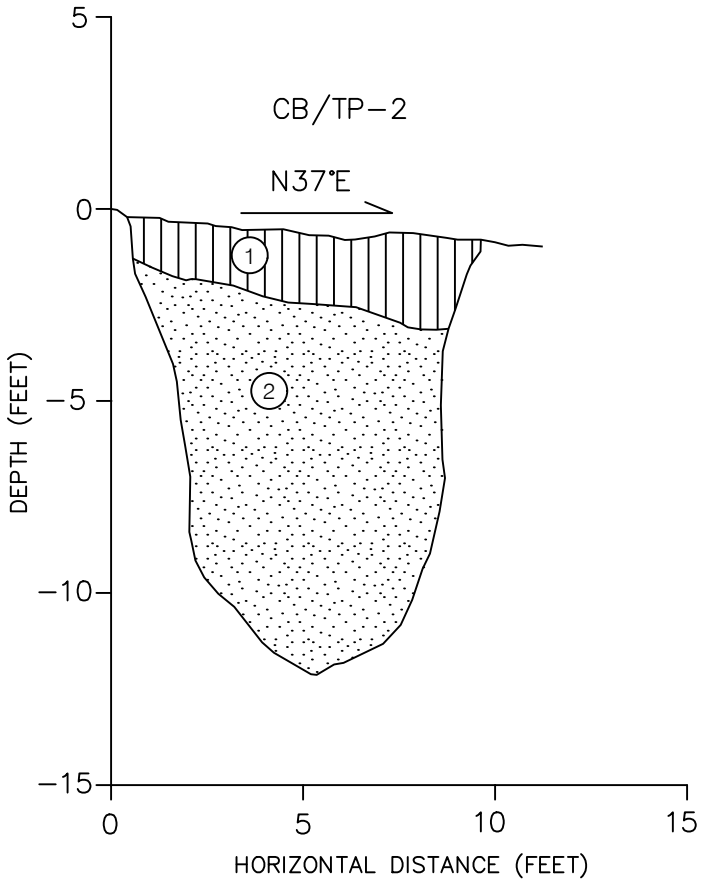
Project: AGUA MANSA COMMERCE PARK
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Figure Title: TEST PIT LOG CB/TP-1

Project No.	Figure No.
700045407	A-1
Date: APRIL 2017	
Scale: 1" = 5'	
Logged By: JAB	Drawn By: DJJ

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Filename: \\langan.com\data\IRV\data4\700045407\Cadd Data\700045407\2D-DesignFiles\Test Pits.dwg Date: 4/11/2017 Time: 15:00 User: jbaron Style Table: Langan.stb Layout: CB TP-1



TEST PIT DESCRIPTION:

(1) Light brown, clayey SILT, trace fine sand, (ML), dry

(2) Brown, medium SAND, trace fine rounded gravel, (SP), moist

NOTES:

1. REFER TO FIGURE xx FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 10 APRIL 2017 AND BACKFILLED AFTER OBSERVATION AND LOGGING.

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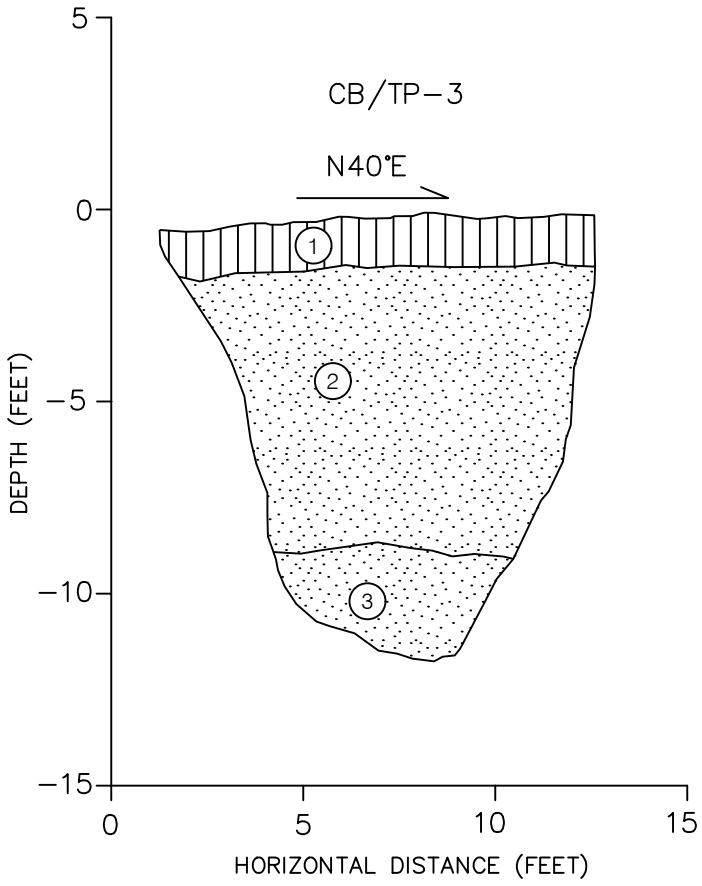
Project: AGUA MANSA COMMERCE PARK
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RIVERSIDE COUNTY CALIFORNIA

Figure Title: TEST PIT LOG CB/TP-2

Project No.	Figure No.
700045407	A-2
Date: APRIL 2017	
Scale: 1" = 5'	
Logged By: JAB / Drawn By: DJJ	

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Filename: \\langan.com\data\IRV\data4\700045407\Geotech\700045407\2D-DesignFiles\Test Pits.dwg Date: 4/11/2017 Time: 15:01 User: jbaron Style Table: Langan.stb Layout: CB TP-2



TEST PIT DESCRIPTION:

1. Light brown, clayey SILT, (ML), dry
2. Dark brown, medium SAND, (SP), moist
3. Grey, medium to coarse SAND, trace fine rounded gravel, (SP), moist

NOTES:

1. REFER TO FIGURE xx FOR APPROXIMATE LOCATION OF TEST PITS.
2. TEST PIT WAS EXCAVATED ON 10 APRIL 2017 AND BACKFILLED AFTER OBSERVATION AND LOGGING.

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Figure Title: TEST PIT LOG CB/TP-3

Project No.	Figure No.
700045407	A-3
Date: APRIL 2017	
Scale: 1" = 5'	
Logged By: JAB / Drawn By: DJJ	

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Filename: \\langan.com\data\IRV\data4\700045407\Geotech\700045407\2D-DesignFiles\Test Pits.dwg Date: 4/11/2017 Time: 15:01 User: jbaron Style Table: Langan.stb Layout: CB TP-3

APPENDIX G

Laboratory Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-185001-1
Client Project/Site: Groundwater
Revision: 1

For:
Langan Engineering & Environmental Srvcs
32 Executive Park
Suite 130
Irvine, California 92614

Attn: Drew Lassen

Authorized for release by:
6/7/2017 9:49:03 AM

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 14
Lab Chronicle 15
QC Sample Results 19
QC Association Summary 30
Definitions/Glossary 35
Certification Summary 36
Chain of Custody 37
Receipt Checklists 38

Sample Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Groundwater

TestAmerica Job ID: 440-185001-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-185001-1	Northern Well	Water	05/23/17 10:20	05/23/17 15:55
440-185001-2	MW-3	Water	05/23/17 12:20	05/23/17 15:55
440-185001-3	SW-1	Water	05/23/17 12:40	05/23/17 15:55
440-185001-4	SW-2	Water	05/23/17 12:55	05/23/17 15:55
440-185001-5	MW-4	Water	05/23/17 14:20	05/23/17 15:55

Job ID: 440-185001-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-185001-1

Comments
No additional comments.

Receipt
The samples were received on 5/23/2017 3:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.4° C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample ID: Northern Well

Date Collected: 05/23/17 10:20
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**56**		10		mg/L			05/23/17 18:43	20
Nitrate as N	**22**		2.2		mg/L			05/23/17 18:43	20
Fluoride	ND		0.50		mg/L			05/23/17 18:31	1
Nitrite as N	ND		0.15		mg/L			05/23/17 18:31	1
Sulfate	**110**		10		mg/L			05/23/17 18:43	20
Nitrate as NO3	**98**		10		mg/L			05/23/17 18:43	20

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**3.1**		2.0		ug/L			05/23/17 17:51	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**130**		0.10		mg/L		05/30/17 12:47	06/03/17 16:58	1
Copper	ND		0.010		mg/L		05/30/17 12:47	06/03/17 16:58	1
Iron	**0.55**		0.10		mg/L		05/30/17 12:47	06/03/17 16:58	1
Potassium	**3.9**		0.50		mg/L		05/30/17 12:47	06/03/17 16:58	1
Magnesium	**15**		0.020		mg/L		05/30/17 12:47	06/03/17 16:58	1
Sodium	**77**		0.50		mg/L		05/30/17 12:47	06/03/17 16:58	1
Zinc	ND		0.020		mg/L		05/30/17 12:47	06/03/17 16:58	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:43	1
Arsenic	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:43	1
Barium	**0.099**		0.010		mg/L		05/30/17 12:10	06/05/17 14:43	1
Beryllium	ND		0.0020		mg/L		05/30/17 12:10	06/05/17 14:43	1
Cadmium	ND		0.0050		mg/L		05/30/17 12:10	06/05/17 14:43	1
Chromium	**0.0072**		0.0050		mg/L		05/30/17 12:10	06/05/17 14:43	1
Cobalt	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:43	1
Copper	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:43	1
Lead	ND		0.0050		mg/L		05/30/17 12:10	06/05/17 14:43	1
Molybdenum	ND		0.020		mg/L		05/30/17 12:10	06/05/17 14:43	1
Nickel	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:43	1
Selenium	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:43	1
Thallium	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:43	1
Vanadium	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:43	1
Zinc	ND		0.020		mg/L		05/30/17 12:10	06/02/17 12:07	1
Silver	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:43	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:44	1
Arsenic	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:44	1
Barium	**0.096**		0.010		mg/L		05/30/17 09:09	05/31/17 19:44	1
Beryllium	ND		0.0020		mg/L		05/30/17 09:09	05/31/17 19:44	1
Cadmium	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 19:44	1
Chromium	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 19:44	1
Cobalt	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:44	1
Copper	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:44	1

Client Sample ID: Northern Well

Lab Sample ID: 440-185001-1

Date Collected: 05/23/17 10:20

Matrix: Water

Date Received: 05/23/17 15:55

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 19:44	1
Molybdenum	ND		0.020		mg/L		05/30/17 09:09	05/31/17 19:44	1
Nickel	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:44	1
Selenium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:44	1
Thallium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:44	1
Vanadium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:44	1
Zinc	ND		0.020		mg/L		05/30/17 09:09	05/31/17 19:44	1
Silver	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:44	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/24/17 20:23	05/25/17 14:09	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/30/17 18:51	05/31/17 17:47	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**270**		4.0		mg/L			05/24/17 08:00	1
Bicarbonate Alkalinity as CaCO3	**270**		4.0		mg/L			05/24/17 08:00	1
Carbonate Alkalinity as CaCO3	ND		4.0		mg/L			05/24/17 08:00	1
Hydroxide Alkalinity as CaCO3	ND		4.0		mg/L			05/24/17 08:00	1
Specific Conductance	**950**		1.0		umhos/cm			05/30/17 08:52	1
Total Dissolved Solids	**610**		10		mg/L			05/26/17 08:12	1
pH	**8.0**	**HF**	0.1		SU			06/06/17 16:02	1
Methylene Blue Active Substances	ND		0.10		mg/L			05/24/17 18:31	1

Client Sample ID: MW-3

Lab Sample ID: 440-185001-2

Date Collected: 05/23/17 12:20

Matrix: Water

Date Received: 05/23/17 15:55

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**58**		10		mg/L			05/23/17 19:10	20
Nitrate as N	**18**		2.2		mg/L			05/23/17 19:10	20
Fluoride	ND		0.50		mg/L			05/23/17 18:57	1
Nitrite as N	ND		0.15		mg/L			05/23/17 18:57	1
Sulfate	**160**		10		mg/L			05/23/17 19:10	20
Nitrate as NO3	**79**		10		mg/L			05/23/17 19:10	20

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**16**		2.0		ug/L			05/23/17 18:03	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**120**		0.10		mg/L		05/30/17 12:47	06/03/17 17:17	1
Copper	ND		0.010		mg/L		05/30/17 12:47	06/03/17 17:17	1
Iron	**0.28**		0.10		mg/L		05/30/17 12:47	06/03/17 17:17	1
Potassium	**4.0**		0.50		mg/L		05/30/17 12:47	06/03/17 17:17	1

Client Sample ID: MW-3

Date Collected: 05/23/17 12:20
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-2

Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**14**		0.020		mg/L		05/30/17 12:47	06/03/17 17:17	1
Sodium	**78**		0.50		mg/L		05/30/17 12:47	06/03/17 17:17	1
Zinc	ND		0.020		mg/L		05/30/17 12:47	06/03/17 17:17	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:45	1
Arsenic	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:45	1
Barium	**0.10**		0.010		mg/L		05/30/17 12:10	06/05/17 14:45	1
Beryllium	ND		0.0020		mg/L		05/30/17 12:10	06/05/17 14:45	1
Cadmium	ND		0.0050		mg/L		05/30/17 12:10	06/05/17 14:45	1
Chromium	**0.020**		0.0050		mg/L		05/30/17 12:10	06/05/17 14:45	1
Cobalt	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:45	1
Copper	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:45	1
Lead	ND		0.0050		mg/L		05/30/17 12:10	06/05/17 14:45	1
Molybdenum	ND		0.020		mg/L		05/30/17 12:10	06/05/17 14:45	1
Nickel	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:45	1
Selenium	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:45	1
Thallium	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:45	1
Vanadium	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:45	1
Zinc	ND		0.020		mg/L		05/30/17 12:10	06/02/17 12:25	1
Silver	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:45	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:13	1
Arsenic	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:13	1
Barium	**0.093**		0.010		mg/L		05/30/17 09:09	05/31/17 20:13	1
Beryllium	ND		0.0020		mg/L		05/30/17 09:09	05/31/17 20:13	1
Cadmium	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 20:13	1
Chromium	**0.018**		0.0050		mg/L		05/30/17 09:09	05/31/17 20:13	1
Cobalt	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:13	1
Copper	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:13	1
Lead	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 20:13	1
Molybdenum	ND		0.020		mg/L		05/30/17 09:09	05/31/17 20:13	1
Nickel	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:13	1
Selenium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:13	1
Thallium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:13	1
Vanadium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:13	1
Zinc	ND		0.020		mg/L		05/30/17 09:09	05/31/17 20:13	1
Silver	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:13	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/24/17 20:23	05/25/17 14:12	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/30/17 18:51	05/31/17 17:44	1

Client Sample Results

Client: Langan Engineering & Environmental Srvcs
Project/Site: Groundwater

TestAmerica Job ID: 440-185001-1

Client Sample ID: MW-3

Lab Sample ID: 440-185001-2

Date Collected: 05/23/17 12:20

Matrix: Water

Date Received: 05/23/17 15:55

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**250**		4.0		mg/L			05/24/17 08:16	1
Bicarbonate Alkalinity as CaCO3	**250**		4.0		mg/L			05/24/17 08:16	1
Carbonate Alkalinity as CaCO3	ND		4.0		mg/L			05/24/17 08:16	1
Hydroxide Alkalinity as CaCO3	ND		4.0		mg/L			05/24/17 08:16	1
Specific Conductance	**980**		1.0		umhos/cm			05/30/17 08:52	1
Total Dissolved Solids	**690**		10		mg/L			05/26/17 08:12	1
pH	**7.9**	**HF**	0.1		SU			06/06/17 16:02	1
Methylene Blue Active Substances	ND		0.10		mg/L			05/24/17 18:31	1

Client Sample ID: SW-1

Lab Sample ID: 440-185001-3

Date Collected: 05/23/17 12:40

Matrix: Water

Date Received: 05/23/17 15:55

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55**		5.0		mg/L			05/23/17 19:36	10
Nitrate as N	**6.5**		0.11		mg/L			05/23/17 19:23	1
Fluoride	**0.50**		0.50		mg/L			05/23/17 19:23	1
Nitrite as N	ND		0.15		mg/L			05/23/17 19:23	1
Sulfate	**140**		5.0		mg/L			05/23/17 19:36	10
Nitrate as NO3	**29**		0.50		mg/L			05/23/17 19:23	1

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**5.0**		2.0		ug/L			05/23/17 18:38	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**31**		0.10		mg/L		05/30/17 12:47	06/03/17 17:19	1
Copper	ND		0.010		mg/L		05/30/17 12:47	06/03/17 17:19	1
Iron	ND		0.10		mg/L		05/30/17 12:47	06/03/17 17:19	1
Potassium	**28**		0.50		mg/L		05/30/17 12:47	06/03/17 17:19	1
Magnesium	**13**		0.020		mg/L		05/30/17 12:47	06/03/17 17:19	1
Sodium	**68**		0.50		mg/L		05/30/17 12:47	06/03/17 17:19	1
Zinc	ND		0.020		mg/L		05/30/17 12:47	06/03/17 17:19	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:53	1
Arsenic	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:53	1
Barium	**0.061**		0.010		mg/L		05/30/17 12:11	06/05/17 14:53	1
Beryllium	ND		0.0020		mg/L		05/30/17 12:11	06/05/17 14:53	1
Cadmium	ND		0.0050		mg/L		05/30/17 12:11	06/05/17 14:53	1
Chromium	**0.0058**		0.0050		mg/L		05/30/17 12:11	06/05/17 14:53	1
Cobalt	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:53	1
Copper	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:53	1
Lead	ND		0.0050		mg/L		05/30/17 12:11	06/05/17 14:53	1
Molybdenum	ND		0.020		mg/L		05/30/17 12:11	06/05/17 14:53	1
Nickel	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:53	1
Selenium	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:53	1

Client Sample ID: SW-1

Date Collected: 05/23/17 12:40
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-3

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:53	1
Vanadium	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:53	1
Zinc	ND		0.020		mg/L		05/30/17 12:11	06/02/17 12:27	1
Silver	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:53	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:15	1
Arsenic	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:15	1
Barium	**0.058**		0.010		mg/L		05/30/17 09:09	05/31/17 20:15	1
Beryllium	ND		0.0020		mg/L		05/30/17 09:09	05/31/17 20:15	1
Cadmium	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 20:15	1
Chromium	**0.0056**		0.0050		mg/L		05/30/17 09:09	05/31/17 20:15	1
Cobalt	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:15	1
Copper	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:15	1
Lead	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 20:15	1
Molybdenum	ND		0.020		mg/L		05/30/17 09:09	05/31/17 20:15	1
Nickel	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:15	1
Selenium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:15	1
Thallium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:15	1
Vanadium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:15	1
Zinc	ND		0.020		mg/L		05/30/17 09:09	05/31/17 20:15	1
Silver	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:15	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/24/17 20:23	05/25/17 14:15	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/30/17 18:51	05/31/17 17:42	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**92**		4.0		mg/L			05/24/17 08:23	1
Bicarbonate Alkalinity as CaCO3	**69**		4.0		mg/L			05/24/17 08:23	1
Carbonate Alkalinity as CaCO3	**22**		4.0		mg/L			05/24/17 08:23	1
Hydroxide Alkalinity as CaCO3	ND		4.0		mg/L			05/24/17 08:23	1
Specific Conductance	**700**		1.0		umhos/cm			05/30/17 08:52	1
Total Dissolved Solids	**470**		10		mg/L			05/26/17 08:12	1
pH	**8.7**	**HF**	0.1		SU			06/06/17 16:02	1
Methylene Blue Active Substances	ND		0.10		mg/L			05/24/17 18:31	1

Client Sample ID: SW-2

Date Collected: 05/23/17 12:55
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55**		5.0		mg/L			05/23/17 20:02	10
Nitrate as N	**6.5**		0.11		mg/L			05/23/17 19:49	1

Client Sample ID: SW-2

Date Collected: 05/23/17 12:55
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.50		mg/L			05/23/17 19:49	1
Nitrite as N	ND		0.15		mg/L			05/23/17 19:49	1
Sulfate	**140**		5.0		mg/L			05/23/17 20:02	10
Nitrate as NO3	**29**		0.50		mg/L			05/23/17 19:49	1

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**5.0**		2.0		ug/L			05/23/17 18:49	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**36**		0.10		mg/L		05/30/17 12:47	06/03/17 17:22	1
Copper	ND		0.010		mg/L		05/30/17 12:47	06/03/17 17:22	1
Iron	ND		0.10		mg/L		05/30/17 12:47	06/03/17 17:22	1
Potassium	**32**		0.50		mg/L		05/30/17 12:47	06/03/17 17:22	1
Magnesium	**14**		0.020		mg/L		05/30/17 12:47	06/03/17 17:22	1
Sodium	**78**		0.50		mg/L		05/30/17 12:47	06/03/17 17:22	1
Zinc	ND		0.020		mg/L		05/30/17 12:47	06/03/17 17:22	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:56	1
Arsenic	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:56	1
Barium	**0.059**		0.010		mg/L		05/30/17 12:11	06/05/17 14:56	1
Beryllium	ND		0.0020		mg/L		05/30/17 12:11	06/05/17 14:56	1
Cadmium	ND		0.0050		mg/L		05/30/17 12:11	06/05/17 14:56	1
Chromium	**0.0058**		0.0050		mg/L		05/30/17 12:11	06/05/17 14:56	1
Cobalt	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:56	1
Copper	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:56	1
Lead	ND		0.0050		mg/L		05/30/17 12:11	06/05/17 14:56	1
Molybdenum	ND		0.020		mg/L		05/30/17 12:11	06/05/17 14:56	1
Nickel	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:56	1
Selenium	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:56	1
Thallium	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:56	1
Vanadium	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:56	1
Zinc	ND		0.020		mg/L		05/30/17 12:11	06/02/17 12:29	1
Silver	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:56	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:18	1
Arsenic	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:18	1
Barium	**0.053**		0.010		mg/L		05/30/17 09:09	05/31/17 20:18	1
Beryllium	ND		0.0020		mg/L		05/30/17 09:09	05/31/17 20:18	1
Cadmium	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 20:18	1
Chromium	**0.0052**		0.0050		mg/L		05/30/17 09:09	05/31/17 20:18	1
Cobalt	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:18	1
Copper	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:18	1
Lead	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 20:18	1
Molybdenum	ND		0.020		mg/L		05/30/17 09:09	05/31/17 20:18	1

Client Sample ID: SW-2

Lab Sample ID: 440-185001-4

Date Collected: 05/23/17 12:55

Matrix: Water

Date Received: 05/23/17 15:55

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:18	1
Selenium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:18	1
Thallium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:18	1
Vanadium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:18	1
Zinc	ND		0.020		mg/L		05/30/17 09:09	05/31/17 20:18	1
Silver	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:18	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/24/17 20:23	05/25/17 14:17	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/30/17 18:51	05/31/17 17:39	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**92**		4.0		mg/L			05/24/17 08:30	1
Bicarbonate Alkalinity as CaCO3	**71**		4.0		mg/L			05/24/17 08:30	1
Carbonate Alkalinity as CaCO3	**21**		4.0		mg/L			05/24/17 08:30	1
Hydroxide Alkalinity as CaCO3	ND		4.0		mg/L			05/24/17 08:30	1
Specific Conductance	**700**		1.0		umhos/cm			05/30/17 08:52	1
Total Dissolved Solids	**470**		10		mg/L			05/26/17 08:12	1
pH	**8.6**	**HF**	0.1		SU			06/06/17 16:02	1
Methylene Blue Active Substances	ND		0.10		mg/L			05/24/17 18:31	1

Client Sample ID: MW-4

Lab Sample ID: 440-185001-5

Date Collected: 05/23/17 14:20

Matrix: Water

Date Received: 05/23/17 15:55

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41**		10		mg/L			05/23/17 20:28	20
Nitrate as N	**16**		2.2		mg/L			05/23/17 20:28	20
Fluoride	ND		0.50		mg/L			05/23/17 20:15	1
Nitrite as N	ND		0.15		mg/L			05/23/17 20:15	1
Sulfate	**78**		10		mg/L			05/23/17 20:28	20
Nitrate as NO3	**73**		10		mg/L			05/23/17 20:28	20

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		2.0		ug/L			05/23/17 19:01	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**110**		0.10		mg/L		05/30/17 12:47	06/03/17 17:24	1
Copper	ND		0.010		mg/L		05/30/17 12:47	06/03/17 17:24	1
Iron	**0.95**		0.10		mg/L		05/30/17 12:47	06/03/17 17:24	1
Potassium	**5.9**		0.50		mg/L		05/30/17 12:47	06/03/17 17:24	1
Magnesium	**14**		0.020		mg/L		05/30/17 12:47	06/03/17 17:24	1
Sodium	**67**		0.50		mg/L		05/30/17 12:47	06/03/17 17:24	1

Client Sample ID: MW-4
Date Collected: 05/23/17 14:20
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-5
Matrix: Water

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.020		mg/L		05/30/17 12:47	06/03/17 17:24	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:58	1
Arsenic	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:58	1
Barium	**0.098**		0.010		mg/L		05/30/17 12:11	06/05/17 14:58	1
Beryllium	ND		0.0020		mg/L		05/30/17 12:11	06/05/17 14:58	1
Cadmium	ND		0.0050		mg/L		05/30/17 12:11	06/05/17 14:58	1
Chromium	**0.0065**		0.0050		mg/L		05/30/17 12:11	06/05/17 14:58	1
Cobalt	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:58	1
Copper	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:58	1
Lead	ND		0.0050		mg/L		05/30/17 12:11	06/05/17 14:58	1
Molybdenum	ND		0.020		mg/L		05/30/17 12:11	06/05/17 14:58	1
Nickel	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:58	1
Selenium	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:58	1
Thallium	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:58	1
Vanadium	**0.016**		0.010		mg/L		05/30/17 12:11	06/05/17 14:58	1
Zinc	**0.13**		0.020		mg/L		05/30/17 12:11	06/02/17 12:32	1
Silver	ND		0.010		mg/L		05/30/17 12:11	06/05/17 14:58	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:20	1
Arsenic	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:20	1
Barium	**0.075**		0.010		mg/L		05/30/17 09:09	05/31/17 20:20	1
Beryllium	ND		0.0020		mg/L		05/30/17 09:09	05/31/17 20:20	1
Cadmium	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 20:20	1
Chromium	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 20:20	1
Cobalt	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:20	1
Copper	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:20	1
Lead	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 20:20	1
Molybdenum	ND		0.020		mg/L		05/30/17 09:09	05/31/17 20:20	1
Nickel	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:20	1
Selenium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:20	1
Thallium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:20	1
Vanadium	**0.012**		0.010		mg/L		05/30/17 09:09	05/31/17 20:20	1
Zinc	ND		0.020		mg/L		05/30/17 09:09	05/31/17 20:20	1
Silver	ND		0.010		mg/L		05/30/17 09:09	05/31/17 20:20	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/24/17 20:23	05/25/17 14:20	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/30/17 18:51	05/31/17 17:31	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	**280**		4.0		mg/L			05/24/17 08:38	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Groundwater

TestAmerica Job ID: 440-185001-1

Client Sample ID: MW-4
Date Collected: 05/23/17 14:20
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-5
Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	**280**		4.0		mg/L			05/24/17 08:38	1
Carbonate Alkalinity as CaCO3	ND		4.0		mg/L			05/24/17 08:38	1
Hydroxide Alkalinity as CaCO3	ND		4.0		mg/L			05/24/17 08:38	1
Specific Conductance	**830**		1.0		umhos/cm			05/30/17 08:52	1
Total Dissolved Solids	**590**		10		mg/L			05/26/17 08:12	1
pH	**7.8**	**HF**	0.1		SU			06/06/17 16:02	1
Methylene Blue Active Substances	ND		0.10		mg/L			05/24/17 18:32	1

Method Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Groundwater

TestAmerica Job ID: 440-185001-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
7199	Chromium, Hexavalent (IC)	SW846	TAL IRV
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
7470A	Mercury (CVAA)	SW846	TAL IRV
SM 2320B	Alkalinity	SM	TAL IRV
SM 2510B	Conductivity, Specific Conductance	SM	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV
SM 4500 H+ B	pH	SM	TAL IRV
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	TAL IRV

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Groundwater

TestAmerica Job ID: 440-185001-1

Client Sample ID: Northern Well

Date Collected: 05/23/17 10:20
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	407733	05/23/17 18:31	NTN	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	407734	05/23/17 18:31	NTN	TAL IRV
Total/NA	Analysis	300.0		20	5 mL	1.0 mL	407733	05/23/17 18:43	NTN	TAL IRV
Total/NA	Analysis	300.0		20	5 mL	1.0 mL	407734	05/23/17 18:43	NTN	TAL IRV
Total/NA	Analysis	7199		1			407674	05/23/17 17:51	MN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	408989	05/30/17 12:47	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			409914	06/03/17 16:58	EN	TAL IRV
Dissolved	Filtration	FILTRATION			200 mL	200 mL	408620	05/26/17 14:46	ZEM	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	408948	05/30/17 09:09	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			409328	05/31/17 19:44	K1E	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	408972	05/30/17 12:10	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			409795	06/02/17 12:07	VS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	408972	05/30/17 12:10	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			410104	06/05/17 14:43	EN	TAL IRV
Dissolved	Filtration	FILTRATION			200 mL	200 mL	408620	05/26/17 14:46	ZEM	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	409086	05/30/17 18:51	DB	TAL IRV
Dissolved	Analysis	7470A		1			409345	05/31/17 17:47	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	408173	05/24/17 20:23	DB	TAL IRV
Total/NA	Analysis	7470A		1			408396	05/25/17 14:09	DB	TAL IRV
Total/NA	Analysis	SM 2320B		1			408007	05/24/17 08:00	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			408926	05/30/17 08:52	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	408241	05/26/17 08:12	XL	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			410375	06/06/17 16:02	ST	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	408156	05/24/17 18:31	HTL	TAL IRV

Client Sample ID: MW-3

Date Collected: 05/23/17 12:20
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	407733	05/23/17 18:57	NTN	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	407734	05/23/17 18:57	NTN	TAL IRV
Total/NA	Analysis	300.0		20	5 mL	1.0 mL	407733	05/23/17 19:10	NTN	TAL IRV
Total/NA	Analysis	300.0		20	5 mL	1.0 mL	407734	05/23/17 19:10	NTN	TAL IRV
Total/NA	Analysis	7199		1			407674	05/23/17 18:03	MN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	408989	05/30/17 12:47	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			409914	06/03/17 17:17	EN	TAL IRV
Dissolved	Filtration	FILTRATION			200 mL	200 mL	408620	05/26/17 14:46	ZEM	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	408948	05/30/17 09:09	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			409328	05/31/17 20:13	K1E	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	408972	05/30/17 12:10	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			409795	06/02/17 12:25	VS	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Groundwater

TestAmerica Job ID: 440-185001-1

Client Sample ID: MW-3

Date Collected: 05/23/17 12:20
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			25 mL	25 mL	408972	05/30/17 12:10	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			410104	06/05/17 14:45	EN	TAL IRV
Dissolved	Filtration	FILTRATION			200 mL	200 mL	408620	05/26/17 14:46	ZEM	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	409086	05/30/17 18:51	DB	TAL IRV
Dissolved	Analysis	7470A		1			409345	05/31/17 17:44	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	408173	05/24/17 20:23	DB	TAL IRV
Total/NA	Analysis	7470A		1			408396	05/25/17 14:12	DB	TAL IRV
Total/NA	Analysis	SM 2320B		1			408007	05/24/17 08:16	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			408926	05/30/17 08:52	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	408241	05/26/17 08:12	XL	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			410375	06/06/17 16:02	ST	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	408156	05/24/17 18:31	HTL	TAL IRV

Client Sample ID: SW-1

Date Collected: 05/23/17 12:40
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	407733	05/23/17 19:23	NTN	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	407734	05/23/17 19:23	NTN	TAL IRV
Total/NA	Analysis	300.0		10	5 mL	1.0 mL	407734	05/23/17 19:36	NTN	TAL IRV
Total/NA	Analysis	7199		1			407674	05/23/17 18:38	MN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	408989	05/30/17 12:47	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			409914	06/03/17 17:19	EN	TAL IRV
Dissolved	Filtration	FILTRATION			200 mL	200 mL	408620	05/26/17 14:46	ZEM	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	408948	05/30/17 09:09	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			409328	05/31/17 20:15	K1E	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	408972	05/30/17 12:11	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			409795	06/02/17 12:27	VS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	408972	05/30/17 12:11	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			410104	06/05/17 14:53	EN	TAL IRV
Dissolved	Filtration	FILTRATION			200 mL	200 mL	408620	05/26/17 14:46	ZEM	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	409086	05/30/17 18:51	DB	TAL IRV
Dissolved	Analysis	7470A		1			409345	05/31/17 17:42	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	408173	05/24/17 20:23	DB	TAL IRV
Total/NA	Analysis	7470A		1			408396	05/25/17 14:15	DB	TAL IRV
Total/NA	Analysis	SM 2320B		1			408007	05/24/17 08:23	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			408926	05/30/17 08:52	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	408241	05/26/17 08:12	XL	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			410375	06/06/17 16:02	ST	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	408156	05/24/17 18:31	HTL	TAL IRV

Client Sample ID: SW-2

Date Collected: 05/23/17 12:55
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	407733	05/23/17 19:49	NTN	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	407734	05/23/17 19:49	NTN	TAL IRV
Total/NA	Analysis	300.0		10	5 mL	1.0 mL	407734	05/23/17 20:02	NTN	TAL IRV
Total/NA	Analysis	7199		1			407674	05/23/17 18:49	MN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	408989	05/30/17 12:47	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			409914	06/03/17 17:22	EN	TAL IRV
Dissolved	Filtration	FILTRATION			200 mL	200 mL	408620	05/26/17 14:46	ZEM	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	408948	05/30/17 09:09	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			409328	05/31/17 20:18	K1E	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	408972	05/30/17 12:11	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			409795	06/02/17 12:29	VS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	408972	05/30/17 12:11	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			410104	06/05/17 14:56	EN	TAL IRV
Dissolved	Filtration	FILTRATION			200 mL	200 mL	408620	05/26/17 14:46	ZEM	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	409086	05/30/17 18:51	DB	TAL IRV
Dissolved	Analysis	7470A		1			409345	05/31/17 17:39	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	408173	05/24/17 20:23	DB	TAL IRV
Total/NA	Analysis	7470A		1			408396	05/25/17 14:17	DB	TAL IRV
Total/NA	Analysis	SM 2320B		1			408007	05/24/17 08:30	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			408926	05/30/17 08:52	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	408241	05/26/17 08:12	XL	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			410375	06/06/17 16:02	ST	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	408156	05/24/17 18:31	HTL	TAL IRV

Client Sample ID: MW-4

Date Collected: 05/23/17 14:20
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	407733	05/23/17 20:15	NTN	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	407734	05/23/17 20:15	NTN	TAL IRV
Total/NA	Analysis	300.0		20	5 mL	1.0 mL	407733	05/23/17 20:28	NTN	TAL IRV
Total/NA	Analysis	300.0		20	5 mL	1.0 mL	407734	05/23/17 20:28	NTN	TAL IRV
Total/NA	Analysis	7199		1			407674	05/23/17 19:01	MN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	408989	05/30/17 12:47	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			409914	06/03/17 17:24	EN	TAL IRV
Dissolved	Filtration	FILTRATION			200 mL	200 mL	408620	05/26/17 14:46	ZEM	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	408948	05/30/17 09:09	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			409328	05/31/17 20:20	K1E	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	408972	05/30/17 12:11	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			409795	06/02/17 12:32	VS	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	408972	05/30/17 12:11	Q1N	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Groundwater

TestAmerica Job ID: 440-185001-1

Client Sample ID: MW-4

Date Collected: 05/23/17 14:20
Date Received: 05/23/17 15:55

Lab Sample ID: 440-185001-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6010B		1			410104	06/05/17 14:58	EN	TAL IRV
Dissolved	Filtration	FILTRATION			200 mL	200 mL	408620	05/26/17 14:46	ZEM	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	409086	05/30/17 18:51	DB	TAL IRV
Dissolved	Analysis	7470A		1			409345	05/31/17 17:31	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	408173	05/24/17 20:23	DB	TAL IRV
Total/NA	Analysis	7470A		1			408396	05/25/17 14:20	DB	TAL IRV
Total/NA	Analysis	SM 2320B		1			408007	05/24/17 08:38	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			408926	05/30/17 08:52	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	408241	05/26/17 08:12	XL	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			410375	06/06/17 16:02	ST	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	408156	05/24/17 18:32	HTL	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-407733/6
Matrix: Water
Analysis Batch: 407733

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.11		mg/L			05/23/17 11:42	1
Nitrite as N	ND		0.15		mg/L			05/23/17 11:42	1
Nitrate as NO3	ND		0.50		mg/L			05/23/17 11:42	1

Lab Sample ID: LCS 440-407733/4
Matrix: Water
Analysis Batch: 407733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			1.13	1.09		mg/L		96	90 - 110		
Nitrite as N			1.52	1.50		mg/L		98	90 - 110		
Nitrate as NO3			5.00	4.81		mg/L		96	90 - 110		

Lab Sample ID: MB 440-407734/6
Matrix: Water
Analysis Batch: 407734

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/L			05/23/17 11:42	1
Fluoride	ND		0.50		mg/L			05/23/17 11:42	1
Sulfate	ND		0.50		mg/L			05/23/17 11:42	1

Lab Sample ID: LCS 440-407734/4
Matrix: Water
Analysis Batch: 407734

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			5.00	4.58		mg/L		92	90 - 110		
Fluoride			5.00	4.57		mg/L		91	90 - 110		
Sulfate			5.00	4.82		mg/L		96	90 - 110		

Lab Sample ID: 440-184974-A-1 MS
Matrix: Water
Analysis Batch: 407734

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	550		250	827		mg/L		109	80 - 120
Fluoride	ND		250	237		mg/L		95	80 - 120
Sulfate	120		250	358		mg/L		94	80 - 120

Lab Sample ID: 440-184974-A-1 MSD
Matrix: Water
Analysis Batch: 407734

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	550		250	828		mg/L		109	80 - 120	0	20
Fluoride	ND		250	237		mg/L		95	80 - 120	0	20
Sulfate	120		250	358		mg/L		94	80 - 120	0	20

Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: MB 440-407674/3
Matrix: Water
Analysis Batch: 407674

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		2.0		ug/L			05/23/17 07:27	1

Lab Sample ID: LCS 440-407674/2
Matrix: Water
Analysis Batch: 407674

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)			50.0	48.8		ug/L		98	90 - 110		

Lab Sample ID: MRL 440-407674/4
Matrix: Water
Analysis Batch: 407674

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)			1.00	ND		ug/L		100	50 - 150		

Lab Sample ID: 440-185001-2 MS
Matrix: Water
Analysis Batch: 407674

Client Sample ID: MW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)	16		50.0	63.3		ug/L		94	85 - 115		

Lab Sample ID: 440-185001-2 MSD
Matrix: Water
Analysis Batch: 407674

Client Sample ID: MW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	16		50.0	62.8		ug/L		93	85 - 115	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-408989/1-A
Matrix: Water
Analysis Batch: 409914

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 408989

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.10		mg/L		05/30/17 12:47	06/03/17 16:37	1
Copper	ND		0.010		mg/L		05/30/17 12:47	06/03/17 16:37	1
Iron	ND		0.10		mg/L		05/30/17 12:47	06/03/17 16:37	1
Potassium	ND		0.50		mg/L		05/30/17 12:47	06/03/17 16:37	1
Magnesium	ND		0.020		mg/L		05/30/17 12:47	06/03/17 16:37	1
Sodium	ND		0.50		mg/L		05/30/17 12:47	06/03/17 16:37	1
Zinc	ND		0.020		mg/L		05/30/17 12:47	06/03/17 16:37	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-408989/2-A
Matrix: Water
Analysis Batch: 409914

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 408989

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	2.50	2.38		mg/L		95	85 - 115
Copper	0.500	0.484		mg/L		97	85 - 115
Iron	0.500	0.495		mg/L		99	85 - 115
Potassium	5.00	4.81		mg/L		96	85 - 115
Magnesium	2.50	2.41		mg/L		97	85 - 115
Sodium	5.00	4.91		mg/L		98	85 - 115
Zinc	0.500	0.476		mg/L		95	85 - 115

Lab Sample ID: 440-184989-E-1-E MS
Matrix: Water
Analysis Batch: 409914

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 408989

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	250		2.50	246	4	mg/L		-128	70 - 130
Copper	0.031		0.500	0.536		mg/L		101	70 - 130
Iron	1.1		0.500	1.69		mg/L		120	70 - 130
Potassium	27		5.00	31.2	4	mg/L		89	70 - 130
Magnesium	150		2.50	149	4	mg/L		6	70 - 130
Sodium	780		5.00	766	4	mg/L		-265	70 - 130
Zinc	0.060		0.500	0.529		mg/L		94	70 - 130

Lab Sample ID: 440-184989-E-1-F MSD
Matrix: Water
Analysis Batch: 409914

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 408989

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	250		2.50	257	4	mg/L		278	70 - 130	4	20
Copper	0.031		0.500	0.555		mg/L		105	70 - 130	3	20
Iron	1.1		0.500	1.73		mg/L		129	70 - 130	3	20
Potassium	27		5.00	32.4	4	mg/L		113	70 - 130	4	20
Magnesium	150		2.50	154	4	mg/L		227	70 - 130	4	20
Sodium	780		5.00	801	4	mg/L		441	70 - 130	5	20
Zinc	0.060		0.500	0.545		mg/L		97	70 - 130	3	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-408972/1-A
Matrix: Water
Analysis Batch: 409795

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 408972

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.020	mg/L		05/30/17 12:10	06/02/17 11:47	1

Lab Sample ID: MB 440-408972/1-A
Matrix: Water
Analysis Batch: 410104

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 408972

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	mg/L		05/30/17 12:10	06/05/17 14:26	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 440-408972/1-A
Matrix: Water
Analysis Batch: 410104

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 408972

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:26	1
Barium	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:26	1
Beryllium	ND		0.0020		mg/L		05/30/17 12:10	06/05/17 14:26	1
Cadmium	ND		0.0050		mg/L		05/30/17 12:10	06/05/17 14:26	1
Chromium	ND		0.0050		mg/L		05/30/17 12:10	06/05/17 14:26	1
Cobalt	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:26	1
Copper	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:26	1
Lead	ND		0.0050		mg/L		05/30/17 12:10	06/05/17 14:26	1
Molybdenum	ND		0.020		mg/L		05/30/17 12:10	06/05/17 14:26	1
Nickel	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:26	1
Selenium	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:26	1
Thallium	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:26	1
Vanadium	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:26	1
Silver	ND		0.010		mg/L		05/30/17 12:10	06/05/17 14:26	1

Lab Sample ID: LCS 440-408972/2-A
Matrix: Water
Analysis Batch: 409795

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 408972

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Zinc			1.00	0.936		mg/L		94	80 - 120		

Lab Sample ID: LCS 440-408972/2-A
Matrix: Water
Analysis Batch: 410104

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 408972

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			1.00	1.01		mg/L		101	80 - 120		
Arsenic			1.00	1.01		mg/L		101	80 - 120		
Barium			1.00	1.01		mg/L		101	80 - 120		
Beryllium			1.00	1.01		mg/L		101	80 - 120		
Cadmium			1.00	1.01		mg/L		101	80 - 120		
Chromium			1.00	1.01		mg/L		101	80 - 120		
Cobalt			1.00	1.01		mg/L		101	80 - 120		
Copper			1.00	1.01		mg/L		101	80 - 120		
Lead			1.00	1.01		mg/L		101	80 - 120		
Molybdenum			1.00	1.01		mg/L		101	80 - 120		
Nickel			1.00	1.01		mg/L		101	80 - 120		
Selenium			1.00	0.947		mg/L		95	80 - 120		
Thallium			1.00	1.01		mg/L		101	80 - 120		
Vanadium			1.00	1.01		mg/L		101	80 - 120		
Silver			0.500	0.498		mg/L		100	80 - 120		

Lab Sample ID: 440-184659-AC-4-C MS
Matrix: Water
Analysis Batch: 409795

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 408972

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Zinc	ND		1.00	0.993		mg/L		99	75 - 125		

QC Sample Results

Client: Langan Engineering & Environmental Srvcs
Project/Site: Groundwater

TestAmerica Job ID: 440-185001-1

Lab Sample ID: 440-184659-AC-4-C MS
Matrix: Water
Analysis Batch: 410104

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 408972

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		1.00	1.05		mg/L		105	75 - 125
Arsenic	0.21		1.00	1.30		mg/L		109	75 - 125
Barium	0.046		1.00	1.02		mg/L		98	75 - 125
Beryllium	ND		1.00	0.998		mg/L		100	75 - 125
Cadmium	ND		1.00	0.917		mg/L		92	75 - 125
Chromium	0.88		1.00	1.81		mg/L		93	75 - 125
Cobalt	ND		1.00	0.919		mg/L		92	75 - 125
Copper	ND		1.00	1.12		mg/L		111	75 - 125
Lead	ND		1.00	0.937		mg/L		94	75 - 125
Molybdenum	0.020		1.00	0.990		mg/L		97	75 - 125
Nickel	ND		1.00	0.914		mg/L		91	75 - 125
Selenium	ND		1.00	0.972		mg/L		97	75 - 125
Thallium	ND		1.00	0.850		mg/L		85	75 - 125
Vanadium	0.032		1.00	1.04		mg/L		101	75 - 125
Silver	ND		0.500	0.556		mg/L		111	75 - 125

Lab Sample ID: 440-184659-AC-4-D MSD
Matrix: Water
Analysis Batch: 409795

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 408972

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Zinc	ND		1.00	1.03		mg/L		103	75 - 125	4	20

Lab Sample ID: 440-184659-AC-4-D MSD
Matrix: Water
Analysis Batch: 410104

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 408972

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		1.00	1.14		mg/L		114	75 - 125	8	20
Arsenic	0.21		1.00	1.39		mg/L		118	75 - 125	7	20
Barium	0.046		1.00	1.09		mg/L		104	75 - 125	6	20
Beryllium	ND		1.00	1.06		mg/L		106	75 - 125	6	20
Cadmium	ND		1.00	0.964		mg/L		96	75 - 125	5	20
Chromium	0.88		1.00	1.94		mg/L		106	75 - 125	7	20
Cobalt	ND		1.00	0.972		mg/L		97	75 - 125	6	20
Copper	ND		1.00	1.21		mg/L		120	75 - 125	7	20
Lead	ND		1.00	1.01		mg/L		101	75 - 125	7	20
Molybdenum	0.020		1.00	1.08		mg/L		106	75 - 125	8	20
Nickel	ND		1.00	0.968		mg/L		96	75 - 125	6	20
Selenium	ND		1.00	1.04		mg/L		104	75 - 125	6	20
Thallium	ND		1.00	0.915		mg/L		92	75 - 125	7	20
Vanadium	0.032		1.00	1.11		mg/L		108	75 - 125	6	20
Silver	ND		0.500	0.589		mg/L		118	75 - 125	6	20

Lab Sample ID: MB 440-408620/1-C
Matrix: Water
Analysis Batch: 409328

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 408948

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:39	1
Arsenic	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:39	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 440-408620/1-C
Matrix: Water
Analysis Batch: 409328

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 408948

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:39	1
Beryllium	ND		0.0020		mg/L		05/30/17 09:09	05/31/17 19:39	1
Cadmium	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 19:39	1
Chromium	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 19:39	1
Cobalt	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:39	1
Copper	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:39	1
Lead	ND		0.0050		mg/L		05/30/17 09:09	05/31/17 19:39	1
Molybdenum	ND		0.020		mg/L		05/30/17 09:09	05/31/17 19:39	1
Nickel	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:39	1
Selenium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:39	1
Thallium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:39	1
Vanadium	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:39	1
Zinc	ND		0.020		mg/L		05/30/17 09:09	05/31/17 19:39	1
Silver	ND		0.010		mg/L		05/30/17 09:09	05/31/17 19:39	1

Lab Sample ID: LCS 440-408620/2-C
Matrix: Water
Analysis Batch: 409328

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 408948

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			1.00	1.01		mg/L		101	80 - 120		
Arsenic			1.00	0.986		mg/L		99	80 - 120		
Barium			1.00	0.993		mg/L		99	80 - 120		
Beryllium			1.00	0.991		mg/L		99	80 - 120		
Cadmium			1.00	0.996		mg/L		100	80 - 120		
Chromium			1.00	0.996		mg/L		100	80 - 120		
Cobalt			1.00	1.01		mg/L		101	80 - 120		
Copper			1.00	1.01		mg/L		101	80 - 120		
Lead			1.00	1.00		mg/L		100	80 - 120		
Molybdenum			1.00	1.01		mg/L		101	80 - 120		
Nickel			1.00	0.997		mg/L		100	80 - 120		
Selenium			1.00	0.926		mg/L		93	80 - 120		
Thallium			1.00	1.00		mg/L		100	80 - 120		
Vanadium			1.00	1.00		mg/L		100	80 - 120		
Zinc			1.00	0.966		mg/L		97	80 - 120		
Silver			0.500	0.485		mg/L		97	80 - 120		

Lab Sample ID: 440-185001-1 MS
Matrix: Water
Analysis Batch: 409328

Client Sample ID: Northern Well
Prep Type: Dissolved
Prep Batch: 408948

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony	ND		1.00	0.971		mg/L		97	75 - 125		
Arsenic	ND		1.00	0.967		mg/L		97	75 - 125		
Barium	0.096		1.00	1.05		mg/L		95	75 - 125		
Beryllium	ND		1.00	0.967		mg/L		97	75 - 125		
Cadmium	ND		1.00	0.957		mg/L		96	75 - 125		
Chromium	ND		1.00	0.969		mg/L		96	75 - 125		
Cobalt	ND		1.00	0.956		mg/L		96	75 - 125		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-185001-1 MS
Matrix: Water
Analysis Batch: 409328

Client Sample ID: Northern Well
Prep Type: Dissolved
Prep Batch: 408948

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	ND		1.00	1.03		mg/L		103	75 - 125
Lead	ND		1.00	0.954		mg/L		95	75 - 125
Molybdenum	ND		1.00	0.970		mg/L		97	75 - 125
Nickel	ND		1.00	0.951		mg/L		95	75 - 125
Selenium	ND		1.00	0.905		mg/L		90	75 - 125
Thallium	ND		1.00	0.934		mg/L		93	75 - 125
Vanadium	ND		1.00	0.989		mg/L		99	75 - 125
Zinc	ND		1.00	0.948		mg/L		95	75 - 125
Silver	ND		0.500	0.487		mg/L		97	75 - 125

Lab Sample ID: 440-185001-1 MSD
Matrix: Water
Analysis Batch: 409328

Client Sample ID: Northern Well
Prep Type: Dissolved
Prep Batch: 408948

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		1.00	0.966		mg/L		97	75 - 125	0	20
Arsenic	ND		1.00	0.968		mg/L		97	75 - 125	0	20
Barium	0.096		1.00	1.04		mg/L		95	75 - 125	1	20
Beryllium	ND		1.00	0.960		mg/L		96	75 - 125	1	20
Cadmium	ND		1.00	0.943		mg/L		94	75 - 125	1	20
Chromium	ND		1.00	0.955		mg/L		95	75 - 125	1	20
Cobalt	ND		1.00	0.948		mg/L		95	75 - 125	1	20
Copper	ND		1.00	1.02		mg/L		102	75 - 125	0	20
Lead	ND		1.00	0.946		mg/L		95	75 - 125	1	20
Molybdenum	ND		1.00	0.962		mg/L		96	75 - 125	1	20
Nickel	ND		1.00	0.928		mg/L		93	75 - 125	2	20
Selenium	ND		1.00	0.900		mg/L		90	75 - 125	1	20
Thallium	ND		1.00	0.932		mg/L		93	75 - 125	0	20
Vanadium	ND		1.00	0.983		mg/L		98	75 - 125	1	20
Zinc	ND		1.00	0.943		mg/L		94	75 - 125	0	20
Silver	ND		0.500	0.487		mg/L		97	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 440-408173/1-A
Matrix: Water
Analysis Batch: 408396

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 408173

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		05/24/17 20:23	05/25/17 13:34	1

Lab Sample ID: LCS 440-408173/2-A
Matrix: Water
Analysis Batch: 408396

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 408173

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury			0.00800	0.00845		mg/L		106	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 720-79669-A-1-C MS
Matrix: Water
Analysis Batch: 408396

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 408173

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00800	0.00816		mg/L		102	70 - 130

Lab Sample ID: 720-79669-A-1-D MSD
Matrix: Water
Analysis Batch: 408396

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 408173

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00800	0.00831		mg/L		104	70 - 130	2	20

Lab Sample ID: MB 440-408620/1-F
Matrix: Water
Analysis Batch: 409345

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 409086

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	mg/L		05/30/17 18:51	05/31/17 17:25	1

Lab Sample ID: LCS 440-408620/2-F
Matrix: Water
Analysis Batch: 409345

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 409086

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00800	0.00790		mg/L		99	80 - 120

Lab Sample ID: 440-185001-5 MS
Matrix: Water
Analysis Batch: 409345

Client Sample ID: MW-4
Prep Type: Dissolved
Prep Batch: 409086

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00800	0.00795		mg/L		99	70 - 130

Lab Sample ID: 440-185001-5 MSD
Matrix: Water
Analysis Batch: 409345

Client Sample ID: MW-4
Prep Type: Dissolved
Prep Batch: 409086

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00800	0.00793		mg/L		99	70 - 130	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-408007/3
Matrix: Water
Analysis Batch: 408007

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity as CaCO3	ND		4.0	mg/L			05/24/17 07:51	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	mg/L			05/24/17 07:51	1
Carbonate Alkalinity as CaCO3	ND		4.0	mg/L			05/24/17 07:51	1
Hydroxide Alkalinity as CaCO3	ND		4.0	mg/L			05/24/17 07:51	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 440-408007/2
Matrix: Water
Analysis Batch: 408007

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity as CaCO3	33.8	36.4		mg/L		108	80 - 120

Lab Sample ID: 440-185001-1 DU
Matrix: Water
Analysis Batch: 408007

Client Sample ID: Northern Well
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity as CaCO3	270		268		mg/L		0.2	20
Bicarbonate Alkalinity as CaCO3	270		268		mg/L		0.2	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 440-408926/3
Matrix: Water
Analysis Batch: 408926

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		1.0	umhos/cm			05/30/17 08:12	1

Lab Sample ID: LCS 440-408926/4
Matrix: Water
Analysis Batch: 408926

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	768	761		umhos/cm		99	90 - 110

Lab Sample ID: 440-184672-K-1 DU
Matrix: Water
Analysis Batch: 408926

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	690		708		umhos/cm		2	5

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-408241/1
Matrix: Water
Analysis Batch: 408241

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	mg/L			05/26/17 08:00	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 440-408241/2
Matrix: Water
Analysis Batch: 408241

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	1010		mg/L		101	90 - 110		

Lab Sample ID: 440-184797-E-3 DU
Matrix: Water
Analysis Batch: 408241

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	2500			2540		mg/L				3	5

Method: SM 4500 H+ B - pH

Lab Sample ID: 440-185614-A-1 DU
Matrix: Water
Analysis Batch: 410375

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	6.8			6.8		SU				0.3	2

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 440-408156/3
Matrix: Water
Analysis Batch: 408156

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Methylene Blue Active Substances	ND		0.10		mg/L			05/24/17 18:30	1

Lab Sample ID: LCS 440-408156/4
Matrix: Water
Analysis Batch: 408156

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methylene Blue Active Substances			0.250	0.254		mg/L		102	90 - 110		

Lab Sample ID: 440-185001-5 MS
Matrix: Water
Analysis Batch: 408156

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methylene Blue Active Substances	ND		0.250	0.317		mg/L		105	50 - 125		

Method: SM 5540C - Methylene Blue Active Substances (MBAS) (Continued)

Lab Sample ID: 440-185001-5 MSD
Matrix: Water
Analysis Batch: 408156

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Blue Active Substances	ND		0.250	0.285		mg/L		92	50 - 125	10	20

QC Association Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Groundwater

TestAmerica Job ID: 440-185001-1

HPLC/IC

Analysis Batch: 407674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total/NA	Water	7199	
440-185001-2	MW-3	Total/NA	Water	7199	
440-185001-3	SW-1	Total/NA	Water	7199	
440-185001-4	SW-2	Total/NA	Water	7199	
440-185001-5	MW-4	Total/NA	Water	7199	
MB 440-407674/3	Method Blank	Total/NA	Water	7199	
LCS 440-407674/2	Lab Control Sample	Total/NA	Water	7199	
MRL 440-407674/4	Lab Control Sample	Total/NA	Water	7199	
440-185001-2 MS	MW-3	Total/NA	Water	7199	
440-185001-2 MSD	MW-3	Total/NA	Water	7199	

Analysis Batch: 407733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total/NA	Water	300.0	
440-185001-1	Northern Well	Total/NA	Water	300.0	
440-185001-2	MW-3	Total/NA	Water	300.0	
440-185001-2	MW-3	Total/NA	Water	300.0	
440-185001-3	SW-1	Total/NA	Water	300.0	
440-185001-4	SW-2	Total/NA	Water	300.0	
440-185001-5	MW-4	Total/NA	Water	300.0	
440-185001-5	MW-4	Total/NA	Water	300.0	
MB 440-407733/6	Method Blank	Total/NA	Water	300.0	
LCS 440-407733/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 407734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total/NA	Water	300.0	
440-185001-1	Northern Well	Total/NA	Water	300.0	
440-185001-2	MW-3	Total/NA	Water	300.0	
440-185001-2	MW-3	Total/NA	Water	300.0	
440-185001-3	SW-1	Total/NA	Water	300.0	
440-185001-3	SW-1	Total/NA	Water	300.0	
440-185001-4	SW-2	Total/NA	Water	300.0	
440-185001-4	SW-2	Total/NA	Water	300.0	
440-185001-5	MW-4	Total/NA	Water	300.0	
440-185001-5	MW-4	Total/NA	Water	300.0	
MB 440-407734/6	Method Blank	Total/NA	Water	300.0	
LCS 440-407734/4	Lab Control Sample	Total/NA	Water	300.0	
440-184974-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
440-184974-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 408173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total/NA	Water	7470A	
440-185001-2	MW-3	Total/NA	Water	7470A	
440-185001-3	SW-1	Total/NA	Water	7470A	
440-185001-4	SW-2	Total/NA	Water	7470A	
440-185001-5	MW-4	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 408173 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-408173/1-A	Method Blank	Total/NA	Water	7470A	
LCS 440-408173/2-A	Lab Control Sample	Total/NA	Water	7470A	
720-79669-A-1-C MS	Matrix Spike	Total/NA	Water	7470A	
720-79669-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 408396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total/NA	Water	7470A	408173
440-185001-2	MW-3	Total/NA	Water	7470A	408173
440-185001-3	SW-1	Total/NA	Water	7470A	408173
440-185001-4	SW-2	Total/NA	Water	7470A	408173
440-185001-5	MW-4	Total/NA	Water	7470A	408173
MB 440-408173/1-A	Method Blank	Total/NA	Water	7470A	408173
LCS 440-408173/2-A	Lab Control Sample	Total/NA	Water	7470A	408173
720-79669-A-1-C MS	Matrix Spike	Total/NA	Water	7470A	408173
720-79669-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	408173

Filtration Batch: 408620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Dissolved	Water	FILTRATION	
440-185001-2	MW-3	Dissolved	Water	FILTRATION	
440-185001-3	SW-1	Dissolved	Water	FILTRATION	
440-185001-4	SW-2	Dissolved	Water	FILTRATION	
440-185001-5	MW-4	Dissolved	Water	FILTRATION	
MB 440-408620/1-C	Method Blank	Dissolved	Water	FILTRATION	
MB 440-408620/1-F	Method Blank	Dissolved	Water	FILTRATION	
LCS 440-408620/2-C	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 440-408620/2-F	Lab Control Sample	Dissolved	Water	FILTRATION	
440-185001-1 MS	Northern Well	Dissolved	Water	FILTRATION	
440-185001-1 MSD	Northern Well	Dissolved	Water	FILTRATION	
440-185001-5 MS	MW-4	Dissolved	Water	FILTRATION	
440-185001-5 MSD	MW-4	Dissolved	Water	FILTRATION	

Prep Batch: 408948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Dissolved	Water	3005A	408620
440-185001-2	MW-3	Dissolved	Water	3005A	408620
440-185001-3	SW-1	Dissolved	Water	3005A	408620
440-185001-4	SW-2	Dissolved	Water	3005A	408620
440-185001-5	MW-4	Dissolved	Water	3005A	408620
MB 440-408620/1-C	Method Blank	Dissolved	Water	3005A	408620
LCS 440-408620/2-C	Lab Control Sample	Dissolved	Water	3005A	408620
440-185001-1 MS	Northern Well	Dissolved	Water	3005A	408620
440-185001-1 MSD	Northern Well	Dissolved	Water	3005A	408620

Prep Batch: 408972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total Recoverable	Water	3005A	
440-185001-2	MW-3	Total Recoverable	Water	3005A	
440-185001-3	SW-1	Total Recoverable	Water	3005A	
440-185001-4	SW-2	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 408972 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-5	MW-4	Total Recoverable	Water	3005A	
MB 440-408972/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-408972/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-184659-AC-4-C MS	Matrix Spike	Total Recoverable	Water	3005A	
440-184659-AC-4-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 408989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total Recoverable	Water	200.2	
440-185001-2	MW-3	Total Recoverable	Water	200.2	
440-185001-3	SW-1	Total Recoverable	Water	200.2	
440-185001-4	SW-2	Total Recoverable	Water	200.2	
440-185001-5	MW-4	Total Recoverable	Water	200.2	
MB 440-408989/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-408989/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-184989-E-1-E MS	Matrix Spike	Total Recoverable	Water	200.2	
440-184989-E-1-F MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	

Prep Batch: 409086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Dissolved	Water	7470A	408620
440-185001-2	MW-3	Dissolved	Water	7470A	408620
440-185001-3	SW-1	Dissolved	Water	7470A	408620
440-185001-4	SW-2	Dissolved	Water	7470A	408620
440-185001-5	MW-4	Dissolved	Water	7470A	408620
MB 440-408620/1-F	Method Blank	Dissolved	Water	7470A	408620
LCS 440-408620/2-F	Lab Control Sample	Dissolved	Water	7470A	408620
440-185001-5 MS	MW-4	Dissolved	Water	7470A	408620
440-185001-5 MSD	MW-4	Dissolved	Water	7470A	408620

Analysis Batch: 409328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Dissolved	Water	6010B	408948
440-185001-2	MW-3	Dissolved	Water	6010B	408948
440-185001-3	SW-1	Dissolved	Water	6010B	408948
440-185001-4	SW-2	Dissolved	Water	6010B	408948
440-185001-5	MW-4	Dissolved	Water	6010B	408948
MB 440-408620/1-C	Method Blank	Dissolved	Water	6010B	408948
LCS 440-408620/2-C	Lab Control Sample	Dissolved	Water	6010B	408948
440-185001-1 MS	Northern Well	Dissolved	Water	6010B	408948
440-185001-1 MSD	Northern Well	Dissolved	Water	6010B	408948

Analysis Batch: 409345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Dissolved	Water	7470A	409086
440-185001-2	MW-3	Dissolved	Water	7470A	409086
440-185001-3	SW-1	Dissolved	Water	7470A	409086
440-185001-4	SW-2	Dissolved	Water	7470A	409086
440-185001-5	MW-4	Dissolved	Water	7470A	409086
MB 440-408620/1-F	Method Blank	Dissolved	Water	7470A	409086
LCS 440-408620/2-F	Lab Control Sample	Dissolved	Water	7470A	409086

Metals (Continued)

Analysis Batch: 409345 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-5 MS	MW-4	Dissolved	Water	7470A	409086
440-185001-5 MSD	MW-4	Dissolved	Water	7470A	409086

Analysis Batch: 409795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total Recoverable	Water	6010B	408972
440-185001-2	MW-3	Total Recoverable	Water	6010B	408972
440-185001-3	SW-1	Total Recoverable	Water	6010B	408972
440-185001-4	SW-2	Total Recoverable	Water	6010B	408972
440-185001-5	MW-4	Total Recoverable	Water	6010B	408972
MB 440-408972/1-A	Method Blank	Total Recoverable	Water	6010B	408972
LCS 440-408972/2-A	Lab Control Sample	Total Recoverable	Water	6010B	408972
440-184659-AC-4-C MS	Matrix Spike	Total Recoverable	Water	6010B	408972
440-184659-AC-4-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	408972

Analysis Batch: 409914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total Recoverable	Water	200.7 Rev 4.4	408989
440-185001-2	MW-3	Total Recoverable	Water	200.7 Rev 4.4	408989
440-185001-3	SW-1	Total Recoverable	Water	200.7 Rev 4.4	408989
440-185001-4	SW-2	Total Recoverable	Water	200.7 Rev 4.4	408989
440-185001-5	MW-4	Total Recoverable	Water	200.7 Rev 4.4	408989
MB 440-408989/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	408989
LCS 440-408989/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	408989
440-184989-E-1-E MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	408989
440-184989-E-1-F MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	408989

Analysis Batch: 410104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total Recoverable	Water	6010B	408972
440-185001-2	MW-3	Total Recoverable	Water	6010B	408972
440-185001-3	SW-1	Total Recoverable	Water	6010B	408972
440-185001-4	SW-2	Total Recoverable	Water	6010B	408972
440-185001-5	MW-4	Total Recoverable	Water	6010B	408972
MB 440-408972/1-A	Method Blank	Total Recoverable	Water	6010B	408972
LCS 440-408972/2-A	Lab Control Sample	Total Recoverable	Water	6010B	408972
440-184659-AC-4-C MS	Matrix Spike	Total Recoverable	Water	6010B	408972
440-184659-AC-4-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	408972

General Chemistry

Analysis Batch: 408007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total/NA	Water	SM 2320B	
440-185001-2	MW-3	Total/NA	Water	SM 2320B	
440-185001-3	SW-1	Total/NA	Water	SM 2320B	
440-185001-4	SW-2	Total/NA	Water	SM 2320B	
440-185001-5	MW-4	Total/NA	Water	SM 2320B	
MB 440-408007/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-408007/2	Lab Control Sample	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 408007 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1 DU	Northern Well	Total/NA	Water	SM 2320B	

Analysis Batch: 408156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total/NA	Water	SM 5540C	
440-185001-2	MW-3	Total/NA	Water	SM 5540C	
440-185001-3	SW-1	Total/NA	Water	SM 5540C	
440-185001-4	SW-2	Total/NA	Water	SM 5540C	
440-185001-5	MW-4	Total/NA	Water	SM 5540C	
MB 440-408156/3	Method Blank	Total/NA	Water	SM 5540C	
LCS 440-408156/4	Lab Control Sample	Total/NA	Water	SM 5540C	
440-185001-5 MS	MW-4	Total/NA	Water	SM 5540C	
440-185001-5 MSD	MW-4	Total/NA	Water	SM 5540C	

Analysis Batch: 408241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total/NA	Water	SM 2540C	
440-185001-2	MW-3	Total/NA	Water	SM 2540C	
440-185001-3	SW-1	Total/NA	Water	SM 2540C	
440-185001-4	SW-2	Total/NA	Water	SM 2540C	
440-185001-5	MW-4	Total/NA	Water	SM 2540C	
MB 440-408241/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-408241/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-184797-E-3 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 408926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total/NA	Water	SM 2510B	
440-185001-2	MW-3	Total/NA	Water	SM 2510B	
440-185001-3	SW-1	Total/NA	Water	SM 2510B	
440-185001-4	SW-2	Total/NA	Water	SM 2510B	
440-185001-5	MW-4	Total/NA	Water	SM 2510B	
MB 440-408926/3	Method Blank	Total/NA	Water	SM 2510B	
LCS 440-408926/4	Lab Control Sample	Total/NA	Water	SM 2510B	
440-184672-K-1 DU	Duplicate	Total/NA	Water	SM 2510B	

Analysis Batch: 410375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-185001-1	Northern Well	Total/NA	Water	SM 4500 H+ B	
440-185001-2	MW-3	Total/NA	Water	SM 4500 H+ B	
440-185001-3	SW-1	Total/NA	Water	SM 4500 H+ B	
440-185001-4	SW-2	Total/NA	Water	SM 4500 H+ B	
440-185001-5	MW-4	Total/NA	Water	SM 4500 H+ B	
440-185614-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Client: Langan Engineering & Environmental Srvcs
Project/Site: Groundwater

TestAmerica Job ID: 440-185001-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Groundwater

TestAmerica Job ID: 440-185001-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-17 *
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312017-1	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Murray, Camille L	Carrier Tracking No(s).	COC No: 440-122830-21968.1
Client Contact: Drew Lassen	Phone	E-Mail: camille.murray@testamericainc.com		Page: Page 1 of 1
Company: Langan Engineering & Environmental Srvcs				Job #:

Address: 32 Executive Park Suite 130	Due Date Requested:
City: Irvine	TAT Requested (days):
State, Zip: CA, 92614	
Phone:	PO #: 700045401
Email: dlassen@langan.com	WO #:
Project Name: Soils/Groundwater	Project #: 44009948
Site:	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 6010B, 7470A	2320B, 2510B, 2540C, Calcd, 300_ORGFM_28D, 300_ORGFMS, 4500_F_C, 5540C, 6010B, 7199_ORGFM,	8260B_LL - Default+Oxygenates 8260B Volatiles	6010B - Lab Filter	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	A			
Northern Well	5-23-17	1020	G	Water			X	X		X		
MW-3		1220	G	Water			X	X		X		
SW-1		1240	G	Water			X	X		X		
SW-2		1255	G	Water			X	X		X		
MW-4		1420	G	Water			X	X		X		
				Water								
				Water								
				Water								

440-185001 Chain of Custody

MS 5/23/17

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 5-23-17 1555	Company: Langan	Received by: Tim Southbom	Date/Time: 5/23/17 1555	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.1/4.4° IR-85

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Srvcs

Job Number: 440-185001-1

Login Number: 185001
List Number: 1
Creator: Soderblom, Tim

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	The Field Sampler was not listed on the Chain of Custody.
There are no discrepancies between the containers received and the COC.	False	Received Trip Blank(s) not listed on COC.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-180840-1
Client Project/Site: Agua Mansa Commerce Park

For:
Langan Engineering & Environmental Srvcs
32 Executive Park
Suite 130
Irvine, California 92614

Attn: Drew Lassen

Authorized for release by:
4/6/2017 2:46:46 PM

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 11
Lab Chronicle 12
QC Sample Results 15
QC Association Summary 24
Definitions/Glossary 28
Certification Summary 29
Chain of Custody 30
Receipt Checklists 31

Sample Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-180840-1	Northern Well	Water	03/28/17 10:30	03/29/17 12:15
440-180840-2	MW-3	Water	03/28/17 12:00	03/29/17 12:15
440-180840-3	SW-1	Water	03/28/17 12:45	03/29/17 12:15
440-180840-4	SW-2	Water	03/28/17 13:10	03/29/17 12:15
440-180840-5	MW-4	Water	03/28/17 15:10	03/29/17 12:15

Job ID: 440-180840-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-180840-1

Comments
No additional comments.

Receipt
The samples were received on 3/29/2017 12:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.0º C.

Receipt Exceptions

The following samples were received outside of holding time for Cr (VI) 7199: Northern Well (440-180840-1) and MW-3 (440-180840-2).

HPLC/IC
Method(s) 300.0: Due to the high concentration of Chloride and/or Sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batches 440-396811 and 440-396802 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 300.0: Due to the high concentration of Nitrate as N and/or Nitrate as NO3, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 440-396810 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 440-396801 were outside control limits for Nitrite as N. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 7199: The following sample was received outside of holding time: Northern Well (440-180840-1), MW-3 (440-180840-2), SW-1 (440-180840-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 200.7 Rev 4.4: Due to the high concentration of Sodium, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 440-397687 and analytical batch 440-398034 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.(440-180553-A-1-B MS) and (440-180553-A-1-C MSD)

Method(s) 6010B: The post digestion spike % recovery for Antimony associated with batch 440-398055 was outside of control limits. (440-180538-A-4-E PDS)

Method(s) 6010B: The continuing calibration verification (CCV) associated with batch 440-398055 recovered above the upper control limit for Cadmium and Cobalt. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: Northern Well (440-180840-1), MW-3 (440-180840-2) and SW-1 (440-180840-3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method(s) SM 2320B: The following samples are associated with this Method Blank and LCS set. Northern Well (440-180840-1), MW-3 (440-180840-2), SW-1 (440-180840-3), SW-2 (440-180840-4), MW-4 (440-180840-5), (LCS 440-397069/29), (MB 440-397069/30) and (440-180840-A-1 DU)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample ID: Northern Well

Date Collected: 03/28/17 10:30
Date Received: 03/29/17 12:15

Lab Sample ID: 440-180840-1

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**55**		10		mg/L			03/29/17 19:18	20
Nitrate as N	**21**		2.2		mg/L			03/29/17 19:18	20
Fluoride	ND		0.50		mg/L			03/29/17 17:22	1
Nitrite as N	ND		0.15		mg/L			03/29/17 17:22	1
Nitrate as NO3	**93**		10		mg/L			03/29/17 19:18	20
Sulfate	**100**		10		mg/L			03/29/17 19:18	20

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND	H	2.0		ug/L			03/29/17 13:12	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**130**		0.10		mg/L		04/03/17 13:45	04/04/17 14:27	1
Copper	**0.011**		0.010		mg/L		04/03/17 13:45	04/04/17 14:27	1
Iron	**1.1**		0.10		mg/L		04/03/17 13:45	04/04/17 14:27	1
Potassium	**4.0**		0.50		mg/L		04/03/17 13:45	04/04/17 14:27	1
Magnesium	**15**		0.020		mg/L		04/03/17 13:45	04/04/17 14:27	1
Manganese	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:27	1
Sodium	**74**		0.50		mg/L		04/03/17 13:45	04/04/17 14:27	1
Zinc	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:27	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:15	1
Arsenic	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:15	1
Barium	**0.095**		0.010		mg/L		04/03/17 13:34	04/04/17 16:15	1
Beryllium	ND		0.0020		mg/L		04/03/17 13:34	04/04/17 16:15	1
Cadmium	ND	^	0.0050		mg/L		04/03/17 13:34	04/04/17 16:15	1
Chromium	**0.026**		0.0050		mg/L		04/03/17 13:34	04/04/17 16:15	1
Cobalt	ND	^	0.010		mg/L		04/03/17 13:34	04/04/17 16:15	1
Copper	**0.014**		0.010		mg/L		04/03/17 13:34	04/04/17 16:15	1
Lead	ND		0.0050		mg/L		04/03/17 13:34	04/04/17 16:15	1
Molybdenum	ND		0.020		mg/L		04/03/17 13:34	04/04/17 16:15	1
Nickel	**0.024**		0.010		mg/L		04/03/17 13:34	04/04/17 16:15	1
Selenium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:15	1
Thallium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:15	1
Vanadium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:15	1
Zinc	ND		0.020		mg/L		04/03/17 13:34	04/04/17 16:15	1
Silver	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:15	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		03/31/17 21:08	04/03/17 14:39	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3	**260**				mg/L			03/30/17 07:09	1
Bicarbonate Alkalinity as CaCO3	**260**				mg/L			03/30/17 07:09	1
Carbonate Alkalinity as CaCO3	**0.00**				mg/L			03/30/17 07:09	1

Client Sample ID: Northern Well

Lab Sample ID: 440-180840-1

Date Collected: 03/28/17 10:30

Matrix: Water

Date Received: 03/29/17 12:15

General Chemistry (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hydroxide Alkalinity as CaCO3	**0.00**				mg/L			03/30/17 07:09	1
Specific Conductance	**950**		1.0		umhos/cm			04/03/17 08:00	1
Total Dissolved Solids	**680**		10		mg/L			03/31/17 09:00	1
pH	**7.9**	**HF**	0.1		SU			03/30/17 12:32	1
Methylene Blue Active Substances	ND		0.10		mg/L			03/30/17 09:09	1

Client Sample ID: MW-3

Lab Sample ID: 440-180840-2

Date Collected: 03/28/17 12:00

Matrix: Water

Date Received: 03/29/17 12:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65**		25		mg/L			03/29/17 16:00	50
Nitrate as N	**16**		5.5		mg/L			03/29/17 16:00	50
Fluoride	ND		0.50		mg/L			03/29/17 15:44	1
Nitrite as N	ND		0.15		mg/L			03/29/17 15:44	1
Nitrate as NO3	**73**		25		mg/L			03/29/17 16:00	50
Sulfate	**190**		25		mg/L			03/29/17 16:00	50

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**17**	**H**	2.0		ug/L			03/29/17 13:25	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**140**		0.10		mg/L		04/03/17 13:45	04/04/17 14:37	1
Copper	ND		0.010		mg/L		04/03/17 13:45	04/04/17 14:37	1
Iron	**0.14**		0.10		mg/L		04/03/17 13:45	04/04/17 14:37	1
Potassium	**4.5**		0.50		mg/L		04/03/17 13:45	04/04/17 14:37	1
Magnesium	**17**		0.020		mg/L		04/03/17 13:45	04/04/17 14:37	1
Manganese	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:37	1
Sodium	**83**		0.50		mg/L		04/03/17 13:45	04/04/17 14:37	1
Zinc	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:37	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:13	1
Arsenic	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:13	1
Barium	**0.11**		0.010		mg/L		04/03/17 13:34	04/04/17 16:13	1
Beryllium	ND		0.0020		mg/L		04/03/17 13:34	04/04/17 16:13	1
Cadmium	ND	^	0.0050		mg/L		04/03/17 13:34	04/04/17 16:13	1
Chromium	**0.027**		0.0050		mg/L		04/03/17 13:34	04/04/17 16:13	1
Cobalt	ND	^	0.010		mg/L		04/03/17 13:34	04/04/17 16:13	1
Copper	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:13	1
Lead	ND		0.0050		mg/L		04/03/17 13:34	04/04/17 16:13	1
Molybdenum	ND		0.020		mg/L		04/03/17 13:34	04/04/17 16:13	1
Nickel	**0.012**		0.010		mg/L		04/03/17 13:34	04/04/17 16:13	1
Selenium	**0.018**		0.010		mg/L		04/03/17 13:34	04/04/17 16:13	1
Thallium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:13	1
Vanadium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:13	1

Client Sample ID: MW-3

Lab Sample ID: 440-180840-2

Date Collected: 03/28/17 12:00

Matrix: Water

Date Received: 03/29/17 12:15

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.020		mg/L		04/03/17 13:34	04/04/17 16:13	1
Silver	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:13	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		03/31/17 21:08	04/03/17 14:58	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3	**230**				mg/L			03/30/17 07:26	1
Bicarbonate Alkalinity as CaCO3	**230**				mg/L			03/30/17 07:26	1
Carbonate Alkalinity as CaCO3	**0.00**				mg/L			03/30/17 07:26	1
Hydroxide Alkalinity as CaCO3	**0.00**				mg/L			03/30/17 07:26	1
Specific Conductance	**1000**		1.0		umhos/cm			04/03/17 08:00	1
Total Dissolved Solids	**750**		10		mg/L			03/31/17 09:00	1
pH	**7.9**	**HF**	0.1		SU			03/30/17 12:32	1
Methylene Blue Active Substances	ND		0.10		mg/L			03/30/17 09:09	1

Client Sample ID: SW-1

Lab Sample ID: 440-180840-3

Date Collected: 03/28/17 12:45

Matrix: Water

Date Received: 03/29/17 12:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**51**		5.0		mg/L			03/29/17 16:32	10
Nitrate as N	**6.9**		0.11		mg/L			03/29/17 16:16	1
Fluoride	ND		0.50		mg/L			03/29/17 16:16	1
Nitrite as N	ND		0.15		mg/L			03/29/17 16:16	1
Nitrate as NO3	**30**		0.50		mg/L			03/29/17 16:16	1
Sulfate	**140**		5.0		mg/L			03/29/17 16:32	10

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**5.6**	**H**	2.0		ug/L			03/29/17 13:38	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**39**		0.10		mg/L		04/03/17 13:45	04/04/17 14:40	1
Copper	ND		0.010		mg/L		04/03/17 13:45	04/04/17 14:40	1
Iron	ND		0.10		mg/L		04/03/17 13:45	04/04/17 14:40	1
Potassium	**33**		0.50		mg/L		04/03/17 13:45	04/04/17 14:40	1
Magnesium	**15**		0.020		mg/L		04/03/17 13:45	04/04/17 14:40	1
Manganese	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:40	1
Sodium	**75**		0.50		mg/L		04/03/17 13:45	04/04/17 14:40	1
Zinc	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:40	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:10	1
Arsenic	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:10	1
Barium	**0.058**		0.010		mg/L		04/03/17 13:34	04/04/17 16:10	1

Client Sample ID: SW-1

Lab Sample ID: 440-180840-3

Date Collected: 03/28/17 12:45

Matrix: Water

Date Received: 03/29/17 12:15

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0020		mg/L		04/03/17 13:34	04/04/17 16:10	1
Cadmium	ND	^	0.0050		mg/L		04/03/17 13:34	04/04/17 16:10	1
Chromium	**0.0061**		0.0050		mg/L		04/03/17 13:34	04/04/17 16:10	1
Cobalt	ND	^	0.010		mg/L		04/03/17 13:34	04/04/17 16:10	1
Copper	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:10	1
Lead	ND		0.0050		mg/L		04/03/17 13:34	04/04/17 16:10	1
Molybdenum	ND		0.020		mg/L		04/03/17 13:34	04/04/17 16:10	1
Nickel	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:10	1
Selenium	**0.011**		0.010		mg/L		04/03/17 13:34	04/04/17 16:10	1
Thallium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:10	1
Vanadium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:10	1
Zinc	ND		0.020		mg/L		04/03/17 13:34	04/04/17 16:10	1
Silver	ND		0.010		mg/L		04/03/17 13:34	04/04/17 16:10	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		03/31/17 21:08	04/03/17 15:00	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3	**88**				mg/L			03/30/17 07:33	1
Bicarbonate Alkalinity as CaCO3	**87**				mg/L			03/30/17 07:33	1
Carbonate Alkalinity as CaCO3	**1.8**				mg/L			03/30/17 07:33	1
Hydroxide Alkalinity as CaCO3	**0.00**				mg/L			03/30/17 07:33	1
Specific Conductance	**700**		1.0		umhos/cm			04/03/17 08:00	1
Total Dissolved Solids	**460**		10		mg/L			03/31/17 09:00	1
pH	**8.3**	**HF**	0.1		SU			03/30/17 12:32	1
Methylene Blue Active Substances	ND		0.10		mg/L			03/30/17 09:09	1

Client Sample ID: SW-2

Lab Sample ID: 440-180840-4

Date Collected: 03/28/17 13:10

Matrix: Water

Date Received: 03/29/17 12:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**51**		5.0		mg/L			03/29/17 17:05	10
Nitrate as N	**6.9**		0.11		mg/L			03/29/17 16:49	1
Fluoride	ND		0.50		mg/L			03/29/17 16:49	1
Nitrite as N	ND		0.15		mg/L			03/29/17 16:49	1
Nitrate as NO3	**30**		0.50		mg/L			03/29/17 16:49	1
Sulfate	**140**		5.0		mg/L			03/29/17 17:05	10

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**5.6**		2.0		ug/L			03/29/17 12:47	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**38**		0.10		mg/L		04/03/17 13:45	04/04/17 14:42	1
Copper	ND		0.010		mg/L		04/03/17 13:45	04/04/17 14:42	1
Iron	ND		0.10		mg/L		04/03/17 13:45	04/04/17 14:42	1

Client Sample ID: SW-2

Lab Sample ID: 440-180840-4

Date Collected: 03/28/17 13:10

Matrix: Water

Date Received: 03/29/17 12:15

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Potassium	**33**		0.50		mg/L		04/03/17 13:45	04/04/17 14:42	1
Magnesium	**14**		0.020		mg/L		04/03/17 13:45	04/04/17 14:42	1
Manganese	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:42	1
Sodium	**73**		0.50		mg/L		04/03/17 13:45	04/04/17 14:42	1
Zinc	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:42	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:55	1
Arsenic	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:55	1
Barium	**0.063**		0.010		mg/L		04/03/17 13:34	04/04/17 15:55	1
Beryllium	ND		0.0020		mg/L		04/03/17 13:34	04/04/17 15:55	1
Cadmium	ND		0.0050		mg/L		04/03/17 13:34	04/04/17 15:55	1
Chromium	**0.0067**		0.0050		mg/L		04/03/17 13:34	04/04/17 15:55	1
Cobalt	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:55	1
Copper	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:55	1
Lead	ND		0.0050		mg/L		04/03/17 13:34	04/04/17 15:55	1
Molybdenum	ND		0.020		mg/L		04/03/17 13:34	04/04/17 15:55	1
Nickel	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:55	1
Selenium	**0.013**		0.010		mg/L		04/03/17 13:34	04/04/17 15:55	1
Thallium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:55	1
Vanadium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:55	1
Zinc	ND		0.020		mg/L		04/03/17 13:34	04/04/17 15:55	1
Silver	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:55	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		03/31/17 21:08	04/03/17 15:03	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3	**88**				mg/L			03/30/17 07:41	1
Bicarbonate Alkalinity as CaCO3	**87**				mg/L			03/30/17 07:41	1
Carbonate Alkalinity as CaCO3	**1.5**				mg/L			03/30/17 07:41	1
Hydroxide Alkalinity as CaCO3	**0.00**				mg/L			03/30/17 07:41	1
Specific Conductance	**700**		1.0		umhos/cm			04/03/17 08:00	1
Total Dissolved Solids	**460**		10		mg/L			03/31/17 09:00	1
pH	**8.3**	**HF**	0.1		SU			03/30/17 12:32	1
Methylene Blue Active Substances	ND		0.10		mg/L			03/30/17 09:09	1

Client Sample ID: MW-4

Lab Sample ID: 440-180840-5

Date Collected: 03/28/17 15:10

Matrix: Water

Date Received: 03/29/17 12:15

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35**		5.0		mg/L			03/29/17 18:09	10
Nitrate as N	**15**		1.1		mg/L			03/29/17 18:09	10
Fluoride	ND		0.50		mg/L			03/29/17 17:21	1
Nitrite as N	ND		0.15		mg/L			03/29/17 17:21	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-1

Client Sample ID: MW-4
Date Collected: 03/28/17 15:10
Date Received: 03/29/17 12:15

Lab Sample ID: 440-180840-5
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as NO3	**68**		5.0		mg/L			03/29/17 18:09	10
Sulfate	**76**		5.0		mg/L			03/29/17 18:09	10

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		2.0		ug/L			03/29/17 13:00	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**110**		0.10		mg/L		04/03/17 13:45	04/04/17 14:44	1
Copper	ND		0.010		mg/L		04/03/17 13:45	04/04/17 14:44	1
Iron	**0.35**		0.10		mg/L		04/03/17 13:45	04/04/17 14:44	1
Potassium	**6.1**		0.50		mg/L		04/03/17 13:45	04/04/17 14:44	1
Magnesium	**14**		0.020		mg/L		04/03/17 13:45	04/04/17 14:44	1
Manganese	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:44	1
Sodium	**65**		0.50		mg/L		04/03/17 13:45	04/04/17 14:44	1
Zinc	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:44	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:52	1
Arsenic	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:52	1
Barium	**0.086**		0.010		mg/L		04/03/17 13:34	04/04/17 15:52	1
Beryllium	ND		0.0020		mg/L		04/03/17 13:34	04/04/17 15:52	1
Cadmium	ND		0.0050		mg/L		04/03/17 13:34	04/04/17 15:52	1
Chromium	**0.0056**		0.0050		mg/L		04/03/17 13:34	04/04/17 15:52	1
Cobalt	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:52	1
Copper	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:52	1
Lead	ND		0.0050		mg/L		04/03/17 13:34	04/04/17 15:52	1
Molybdenum	ND		0.020		mg/L		04/03/17 13:34	04/04/17 15:52	1
Nickel	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:52	1
Selenium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:52	1
Thallium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:52	1
Vanadium	**0.015**		0.010		mg/L		04/03/17 13:34	04/04/17 15:52	1
Zinc	ND		0.020		mg/L		04/03/17 13:34	04/04/17 15:52	1
Silver	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:52	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00021**		0.00020		mg/L		03/31/17 21:08	04/03/17 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3	**260**				mg/L			03/30/17 07:49	1
Bicarbonate Alkalinity as CaCO3	**260**				mg/L			03/30/17 07:49	1
Carbonate Alkalinity as CaCO3	**0.00**				mg/L			03/30/17 07:49	1
Hydroxide Alkalinity as CaCO3	**0.00**				mg/L			03/30/17 07:49	1
Specific Conductance	**820**		1.0		umhos/cm			04/03/17 08:00	1
Total Dissolved Solids	**580**		10		mg/L			03/31/17 09:00	1
pH	**7.7**	**HF**	0.1		SU			03/30/17 12:32	1
Methylene Blue Active Substances	ND		0.10		mg/L			03/30/17 09:09	1

Method Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
7199	Chromium, Hexavalent (IC)	SW846	TAL IRV
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
7470A	Mercury (CVAA)	SW846	TAL IRV
SM 2320B	Alkalinity	SM	TAL IRV
SM 2510B	Conductivity, Specific Conductance	SM	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV
SM 4500 H+ B	pH	SM	TAL IRV
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	TAL IRV

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-1

Client Sample ID: Northern Well

Lab Sample ID: 440-180840-1

Date Collected: 03/28/17 10:30

Matrix: Water

Date Received: 03/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			396801	03/29/17 17:22	NTN	TAL IRV
Total/NA	Analysis	300.0		1			396802	03/29/17 17:22	NTN	TAL IRV
Total/NA	Analysis	300.0		20			396801	03/29/17 19:18	NTN	TAL IRV
Total/NA	Analysis	300.0		20			396802	03/29/17 19:18	NTN	TAL IRV
Total/NA	Analysis	7199		1			396731	03/29/17 13:12	MN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	397687	04/03/17 13:45	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			398034	04/04/17 14:27	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	397682	04/03/17 13:34	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			398055	04/04/17 16:15	B1H	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	397435	03/31/17 21:08	DB	TAL IRV
Total/NA	Analysis	7470A		1			397727	04/03/17 14:39	DB	TAL IRV
Total/NA	Analysis	SM 2320B		1			397069	03/30/17 07:09	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			397621	04/03/17 08:00	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	397249	03/31/17 09:00	XL	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			397068	03/30/17 12:32	RB	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	397043	03/30/17 09:09	HTL	TAL IRV

Client Sample ID: MW-3

Lab Sample ID: 440-180840-2

Date Collected: 03/28/17 12:00

Matrix: Water

Date Received: 03/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			396810	03/29/17 15:44	NTN	TAL IRV
Total/NA	Analysis	300.0		1			396811	03/29/17 15:44	NTN	TAL IRV
Total/NA	Analysis	300.0		50			396810	03/29/17 16:00	NTN	TAL IRV
Total/NA	Analysis	300.0		50			396811	03/29/17 16:00	NTN	TAL IRV
Total/NA	Analysis	7199		1			396731	03/29/17 13:25	MN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	397687	04/03/17 13:45	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			398034	04/04/17 14:37	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	397682	04/03/17 13:34	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			398055	04/04/17 16:13	B1H	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	397435	03/31/17 21:08	DB	TAL IRV
Total/NA	Analysis	7470A		1			397802	04/03/17 14:58	DB	TAL IRV
Total/NA	Analysis	SM 2320B		1			397069	03/30/17 07:26	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			397621	04/03/17 08:00	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	397249	03/31/17 09:00	XL	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			397068	03/30/17 12:32	RB	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	397043	03/30/17 09:09	HTL	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-1

Client Sample ID: SW-1

Lab Sample ID: 440-180840-3

Date Collected: 03/28/17 12:45
Date Received: 03/29/17 12:15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			396810	03/29/17 16:16	NTN	TAL IRV
Total/NA	Analysis	300.0		1			396811	03/29/17 16:16	NTN	TAL IRV
Total/NA	Analysis	300.0		10			396811	03/29/17 16:32	NTN	TAL IRV
Total/NA	Analysis	7199		1			396731	03/29/17 13:38	MN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	397687	04/03/17 13:45	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			398034	04/04/17 14:40	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	397682	04/03/17 13:34	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			398055	04/04/17 16:10	B1H	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	397435	03/31/17 21:08	DB	TAL IRV
Total/NA	Analysis	7470A		1			397802	04/03/17 15:00	DB	TAL IRV
Total/NA	Analysis	SM 2320B		1			397069	03/30/17 07:33	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			397621	04/03/17 08:00	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	397249	03/31/17 09:00	XL	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			397068	03/30/17 12:32	RB	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	397043	03/30/17 09:09	HTL	TAL IRV

Client Sample ID: SW-2

Lab Sample ID: 440-180840-4

Date Collected: 03/28/17 13:10
Date Received: 03/29/17 12:15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			396810	03/29/17 16:49	NTN	TAL IRV
Total/NA	Analysis	300.0		1			396811	03/29/17 16:49	NTN	TAL IRV
Total/NA	Analysis	300.0		10			396811	03/29/17 17:05	NTN	TAL IRV
Total/NA	Analysis	7199		1			396731	03/29/17 12:47	MN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	397687	04/03/17 13:45	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			398034	04/04/17 14:42	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	397682	04/03/17 13:34	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			398055	04/04/17 15:55	B1H	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	397435	03/31/17 21:08	DB	TAL IRV
Total/NA	Analysis	7470A		1			397802	04/03/17 15:03	DB	TAL IRV
Total/NA	Analysis	SM 2320B		1			397069	03/30/17 07:41	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			397621	04/03/17 08:00	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	397249	03/31/17 09:00	XL	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			397068	03/30/17 12:32	RB	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	397043	03/30/17 09:09	HTL	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-1

Client Sample ID: MW-4
Date Collected: 03/28/17 15:10
Date Received: 03/29/17 12:15

Lab Sample ID: 440-180840-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	396810	03/29/17 17:21	NTN	TAL IRV
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	396811	03/29/17 17:21	NTN	TAL IRV
Total/NA	Analysis	300.0		10			396810	03/29/17 18:09	NTN	TAL IRV
Total/NA	Analysis	300.0		10			396811	03/29/17 18:09	NTN	TAL IRV
Total/NA	Analysis	7199		1			396731	03/29/17 13:00	MN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	397687	04/03/17 13:45	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			398034	04/04/17 14:44	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	397682	04/03/17 13:34	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			398055	04/04/17 15:52	B1H	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	397435	03/31/17 21:08	DB	TAL IRV
Total/NA	Analysis	7470A		1			397802	04/03/17 15:06	DB	TAL IRV
Total/NA	Analysis	SM 2320B		1			397069	03/30/17 07:49	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			397621	04/03/17 08:00	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	397249	03/31/17 09:00	XL	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			397068	03/30/17 12:32	RB	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	397043	03/30/17 09:09	HTL	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-396801/4
Matrix: Water
Analysis Batch: 396801

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.11		mg/L			03/29/17 13:58	1
Nitrite as N	ND		0.15		mg/L			03/29/17 13:58	1
Nitrate as NO3	ND		0.50		mg/L			03/29/17 13:58	1

Lab Sample ID: LCS 440-396801/2
Matrix: Water
Analysis Batch: 396801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N			1.13	1.10		mg/L		98	90 - 110		
Nitrite as N			1.52	1.54		mg/L		101	90 - 110		
Nitrate as NO3			5.00	4.88		mg/L		98	90 - 110		

Lab Sample ID: 440-180834-E-1 MS
Matrix: Water
Analysis Batch: 396801

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N	0.31	F1	1.13	1.29		mg/L		87	80 - 120		
Nitrite as N	ND	F1	1.52	2.88	F1	mg/L		189	80 - 120		
Nitrate as NO3	1.4	F1	5.00	5.72		mg/L		87	80 - 120		

Lab Sample ID: 440-180834-E-1 MSD
Matrix: Water
Analysis Batch: 396801

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.31	F1	1.13	1.18	F1	mg/L		77	80 - 120	9	20
Nitrite as N	ND	F1	1.52	2.85	F1	mg/L		187	80 - 120	1	20
Nitrate as NO3	1.4	F1	5.00	5.24	F1	mg/L		77	80 - 120	9	20

Lab Sample ID: MB 440-396802/4
Matrix: Water
Analysis Batch: 396802

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/L			03/29/17 13:58	1
Fluoride	ND		0.50		mg/L			03/29/17 13:58	1
Sulfate	ND		0.50		mg/L			03/29/17 13:58	1

Lab Sample ID: LCS 440-396802/2
Matrix: Water
Analysis Batch: 396802

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			5.00	4.67		mg/L		93	90 - 110		
Fluoride			5.00	5.06		mg/L		101	90 - 110		
Sulfate			5.00	5.10		mg/L		102	90 - 110		

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 440-180834-E-1 MS
Matrix: Water
Analysis Batch: 396802

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.74		5.00	5.37		mg/L		93	80 - 120

Lab Sample ID: 440-180834-E-1 MSD
Matrix: Water
Analysis Batch: 396802

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.74		5.00	5.33		mg/L		92	80 - 120	1	20

Lab Sample ID: MB 440-396810/4
Matrix: Water
Analysis Batch: 396810

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.11	mg/L			03/29/17 13:03	1
Nitrite as N	ND		0.15	mg/L			03/29/17 13:03	1
Nitrate as NO3	ND		0.50	mg/L			03/29/17 13:03	1

Lab Sample ID: LCS 440-396810/2
Matrix: Water
Analysis Batch: 396810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.13	1.09		mg/L		96	90 - 110
Nitrite as N	1.52	1.59		mg/L		104	90 - 110
Nitrate as NO3	5.00	4.81		mg/L		96	90 - 110

Lab Sample ID: 440-180840-5 MS
Matrix: Water
Analysis Batch: 396810

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	ND		1.52	1.63		mg/L		107	80 - 120

Lab Sample ID: 440-180840-5 MSD
Matrix: Water
Analysis Batch: 396810

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	ND		1.52	1.63		mg/L		107	80 - 120	0	20

Lab Sample ID: MB 440-396811/4
Matrix: Water
Analysis Batch: 396811

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	mg/L			03/29/17 13:03	1
Fluoride	ND		0.50	mg/L			03/29/17 13:03	1
Sulfate	ND		0.50	mg/L			03/29/17 13:03	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 440-396811/2
Matrix: Water
Analysis Batch: 396811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.62		mg/L		92	90 - 110
Fluoride	5.00	4.95		mg/L		99	90 - 110
Sulfate	5.00	5.07		mg/L		101	90 - 110

Lab Sample ID: 440-180840-5 MS
Matrix: Water
Analysis Batch: 396811

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	ND		5.00	4.63		mg/L		85	80 - 120

Lab Sample ID: 440-180840-5 MSD
Matrix: Water
Analysis Batch: 396811

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	ND		5.00	4.62		mg/L		85	80 - 120	0	20

Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: MB 440-396731/3
Matrix: Water
Analysis Batch: 396731

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		2.0		ug/L			03/29/17 07:20	1

Lab Sample ID: LCS 440-396731/2
Matrix: Water
Analysis Batch: 396731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	50.0	48.8		ug/L		98	90 - 110

Lab Sample ID: MRL 440-396731/4
Matrix: Water
Analysis Batch: 396731

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	1.00	ND		ug/L		85	50 - 150

Lab Sample ID: 440-180840-4 MS
Matrix: Water
Analysis Batch: 396731

Client Sample ID: SW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	5.5	H	50.0	55.9		ug/L		101	85 - 115

Method: 7199 - Chromium, Hexavalent (IC) (Continued)

Lab Sample ID: 440-180840-4 MSD
Matrix: Water
Analysis Batch: 396731

Client Sample ID: SW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	5.5	H	50.0	54.5		ug/L		98	85 - 115	3	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-397687/1-A
Matrix: Water
Analysis Batch: 398034

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 397687

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.10		mg/L		04/03/17 13:45	04/04/17 14:06	1
Copper	ND		0.010		mg/L		04/03/17 13:45	04/04/17 14:06	1
Iron	ND		0.10		mg/L		04/03/17 13:45	04/04/17 14:06	1
Potassium	ND		0.50		mg/L		04/03/17 13:45	04/04/17 14:06	1
Magnesium	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:06	1
Manganese	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:06	1
Sodium	ND		0.50		mg/L		04/03/17 13:45	04/04/17 14:06	1
Zinc	ND		0.020		mg/L		04/03/17 13:45	04/04/17 14:06	1

Lab Sample ID: LCS 440-397687/2-A
Matrix: Water
Analysis Batch: 398034

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 397687

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium			2.50	2.48		mg/L		99	85 - 115		
Copper			0.500	0.482		mg/L		96	85 - 115		
Iron			0.500	0.530		mg/L		106	85 - 115		
Potassium			5.00	5.07		mg/L		101	85 - 115		
Magnesium			2.50	2.47		mg/L		99	85 - 115		
Manganese			0.500	0.487		mg/L		97	85 - 115		
Sodium			5.00	4.90		mg/L		98	85 - 115		
Zinc			0.500	0.476		mg/L		95	85 - 115		

Lab Sample ID: 440-180553-A-1-B MS
Matrix: Water
Analysis Batch: 398034

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 397687

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Calcium	30		2.50	31.9	4	mg/L		87	70 - 130		
Copper	0.035		0.500	0.542		mg/L		102	70 - 130		
Iron	0.12		0.500	0.642		mg/L		105	70 - 130		
Potassium	7.9		5.00	13.3		mg/L		107	70 - 130		
Magnesium	1.9		2.50	4.30		mg/L		95	70 - 130		
Manganese	0.16		0.500	0.637		mg/L		96	70 - 130		
Zinc	0.090		0.500	0.576		mg/L		97	70 - 130		

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-180553-A-1-C MSD
Matrix: Water
Analysis Batch: 398034

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 397687

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	30		2.50	30.9	4	mg/L		48	70 - 130	3	20
Copper	0.035		0.500	0.555		mg/L		104	70 - 130	2	20
Iron	0.12		0.500	0.656		mg/L		107	70 - 130	2	20
Potassium	7.9		5.00	13.2		mg/L		106	70 - 130	0	20
Magnesium	1.9		2.50	4.25		mg/L		93	70 - 130	1	20
Manganese	0.16		0.500	0.642		mg/L		97	70 - 130	1	20
Zinc	0.090		0.500	0.585		mg/L		99	70 - 130	1	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-397682/1-A
Matrix: Water
Analysis Batch: 398055

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 397682

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:04	1
Arsenic	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:04	1
Barium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:04	1
Beryllium	ND		0.0020		mg/L		04/03/17 13:34	04/04/17 15:04	1
Cadmium	ND		0.0050		mg/L		04/03/17 13:34	04/04/17 15:04	1
Chromium	ND		0.0050		mg/L		04/03/17 13:34	04/04/17 15:04	1
Cobalt	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:04	1
Copper	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:04	1
Lead	ND		0.0050		mg/L		04/03/17 13:34	04/04/17 15:04	1
Molybdenum	ND		0.020		mg/L		04/03/17 13:34	04/04/17 15:04	1
Nickel	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:04	1
Selenium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:04	1
Thallium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:04	1
Vanadium	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:04	1
Zinc	ND		0.020		mg/L		04/03/17 13:34	04/04/17 15:04	1
Silver	ND		0.010		mg/L		04/03/17 13:34	04/04/17 15:04	1

Lab Sample ID: LCS 440-397682/2-A
Matrix: Water
Analysis Batch: 398055

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 397682

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	1.02		mg/L		102	80 - 120
Arsenic	1.00	0.967		mg/L		97	80 - 120
Barium	1.00	0.978		mg/L		98	80 - 120
Beryllium	1.00	0.976		mg/L		98	80 - 120
Cadmium	1.00	1.09		mg/L		109	80 - 120
Chromium	1.00	1.04		mg/L		104	80 - 120
Cobalt	1.00	1.09		mg/L		109	80 - 120
Copper	1.00	1.01		mg/L		101	80 - 120
Lead	1.00	1.05		mg/L		105	80 - 120
Molybdenum	1.00	1.10		mg/L		110	80 - 120
Nickel	1.00	1.01		mg/L		101	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-397682/2-A
Matrix: Water
Analysis Batch: 398055

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 397682

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	1.00	0.958		mg/L		96	80 - 120
Thallium	1.00	1.09		mg/L		109	80 - 120
Vanadium	1.00	1.01		mg/L		101	80 - 120
Zinc	1.00	0.979		mg/L		98	80 - 120
Silver	0.500	0.497		mg/L		99	80 - 120

Lab Sample ID: 440-180538-A-4-C MS
Matrix: Water
Analysis Batch: 398055

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 397682

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		1.00	0.992		mg/L		99	75 - 125
Arsenic	0.026		1.00	1.00		mg/L		98	75 - 125
Barium	0.49		1.00	1.44		mg/L		94	75 - 125
Beryllium	ND		1.00	0.972		mg/L		97	75 - 125
Cadmium	ND		1.00	1.06		mg/L		106	75 - 125
Chromium	0.0057		1.00	1.03		mg/L		102	75 - 125
Cobalt	ND		1.00	1.07		mg/L		106	75 - 125
Copper	ND		1.00	1.03		mg/L		102	75 - 125
Lead	0.0063		1.00	1.03		mg/L		102	75 - 125
Molybdenum	0.086		1.00	1.15		mg/L		106	75 - 125
Nickel	0.011		1.00	0.990		mg/L		98	75 - 125
Selenium	0.050		1.00	0.979		mg/L		93	75 - 125
Thallium	ND		1.00	0.980		mg/L		97	75 - 125
Vanadium	0.023		1.00	1.01		mg/L		99	75 - 125
Zinc	0.058		1.00	1.03		mg/L		98	75 - 125
Silver	ND		0.500	0.500		mg/L		100	75 - 125

Lab Sample ID: 440-180538-A-4-D MSD
Matrix: Water
Analysis Batch: 398055

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 397682

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		1.00	0.974		mg/L		97	75 - 125	2	20
Arsenic	0.026		1.00	0.990		mg/L		96	75 - 125	1	20
Barium	0.49		1.00	1.45		mg/L		95	75 - 125	1	20
Beryllium	ND		1.00	0.958		mg/L		96	75 - 125	1	20
Cadmium	ND		1.00	1.06		mg/L		106	75 - 125	0	20
Chromium	0.0057		1.00	1.02		mg/L		102	75 - 125	1	20
Cobalt	ND		1.00	1.07		mg/L		106	75 - 125	0	20
Copper	ND		1.00	1.03		mg/L		102	75 - 125	0	20
Lead	0.0063		1.00	1.01		mg/L		101	75 - 125	2	20
Molybdenum	0.086		1.00	1.14		mg/L		105	75 - 125	1	20
Nickel	0.011		1.00	0.983		mg/L		97	75 - 125	1	20
Selenium	0.050		1.00	0.963		mg/L		91	75 - 125	2	20
Thallium	ND		1.00	0.963		mg/L		96	75 - 125	2	20
Vanadium	0.023		1.00	1.01		mg/L		99	75 - 125	0	20
Zinc	0.058		1.00	1.03		mg/L		97	75 - 125	0	20
Silver	ND		0.500	0.501		mg/L		100	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 440-397435/1-A
Matrix: Water
Analysis Batch: 397727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 397435

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		03/31/17 21:08	04/03/17 14:34	1

Lab Sample ID: LCS 440-397435/2-A
Matrix: Water
Analysis Batch: 397727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 397435

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00800	0.00819		mg/L		102	80 - 120		

Lab Sample ID: 440-180840-1 MS
Matrix: Water
Analysis Batch: 397727

Client Sample ID: Northern Well
Prep Type: Total/NA
Prep Batch: 397435

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00800	0.00783		mg/L		98	70 - 130		

Lab Sample ID: 440-180840-1 MSD
Matrix: Water
Analysis Batch: 397727

Client Sample ID: Northern Well
Prep Type: Total/NA
Prep Batch: 397435

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00800	0.00786		mg/L		98	70 - 130	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-397069/30
Matrix: Water
Analysis Batch: 397069

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3	0.470				mg/L			03/30/17 07:01	1
Bicarbonate Alkalinity as CaCO3	0.470				mg/L			03/30/17 07:01	1
Carbonate Alkalinity as CaCO3	0.000				mg/L			03/30/17 07:01	1
Hydroxide Alkalinity as CaCO3	0.000				mg/L			03/30/17 07:01	1

Lab Sample ID: LCS 440-397069/29
Matrix: Water
Analysis Batch: 397069

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Alkalinity as CaCO3			33.8	34.9		mg/L		103	80 - 120		

Lab Sample ID: 440-180840-1 DU
Matrix: Water
Analysis Batch: 397069

Client Sample ID: Northern Well
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Alkalinity as CaCO3	260			255		mg/L				0.1	20
Bicarbonate Alkalinity as CaCO3	260			255		mg/L				0.1	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 440-180840-1 DU — **Client Sample ID: Northern Well**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397069

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Carbonate Alkalinity as CaCO3	0.00		0.000		mg/L		NC	20
Hydroxide Alkalinity as CaCO3	0.00		0.000		mg/L		NC	20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 440-397621/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397621

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		1.0	umhos/cm			04/03/17 08:00	1

Lab Sample ID: LCS 440-397621/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397621

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	768	759		umhos/cm		99	90 - 110

Lab Sample ID: 440-180840-5 DU — **Client Sample ID: MW-4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397621

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	820		825		umhos/cm		0.6	5

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-397249/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397249

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	mg/L			03/31/17 09:00	1

Lab Sample ID: LCS 440-397249/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397249

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	970		mg/L		97	90 - 110

Lab Sample ID: 440-180840-1 DU — **Client Sample ID: Northern Well**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 397249

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	680		672		mg/L		0.9	5

Method: SM 4500 H+ B - pH

Lab Sample ID: 440-180840-1 DU
Matrix: Water
Analysis Batch: 397068

Client Sample ID: Northern Well
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.9	HF	7.9		SU		0.4	2

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 440-397043/3
Matrix: Water
Analysis Batch: 397043

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Blue Active Substances	ND		0.10	mg/L			03/30/17 09:08	1

Lab Sample ID: LCS 440-397043/4
Matrix: Water
Analysis Batch: 397043

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Blue Active Substances	0.250	0.250		mg/L		100	90 - 110

Lab Sample ID: 440-180909-A-1 MS
Matrix: Water
Analysis Batch: 397043

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Blue Active Substances	ND		0.250	0.204		mg/L		82	50 - 125

Lab Sample ID: 440-180909-A-1 MSD
Matrix: Water
Analysis Batch: 397043

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Blue Active Substances	ND		0.250	0.237		mg/L		95	50 - 125	15	20

HPLC/IC

Analysis Batch: 396731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total/NA	Water	7199	
440-180840-2	MW-3	Total/NA	Water	7199	
440-180840-3	SW-1	Total/NA	Water	7199	
440-180840-4	SW-2	Total/NA	Water	7199	
440-180840-5	MW-4	Total/NA	Water	7199	
MB 440-396731/3	Method Blank	Total/NA	Water	7199	
LCS 440-396731/2	Lab Control Sample	Total/NA	Water	7199	
MRL 440-396731/4	Lab Control Sample	Total/NA	Water	7199	
440-180840-4 MS	SW-2	Total/NA	Water	7199	
440-180840-4 MSD	SW-2	Total/NA	Water	7199	

Analysis Batch: 396801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total/NA	Water	300.0	
440-180840-1	Northern Well	Total/NA	Water	300.0	
MB 440-396801/4	Method Blank	Total/NA	Water	300.0	
LCS 440-396801/2	Lab Control Sample	Total/NA	Water	300.0	
440-180834-E-1 MS	Matrix Spike	Total/NA	Water	300.0	
440-180834-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 396802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total/NA	Water	300.0	
440-180840-1	Northern Well	Total/NA	Water	300.0	
MB 440-396802/4	Method Blank	Total/NA	Water	300.0	
LCS 440-396802/2	Lab Control Sample	Total/NA	Water	300.0	
440-180834-E-1 MS	Matrix Spike	Total/NA	Water	300.0	
440-180834-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Analysis Batch: 396810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-2	MW-3	Total/NA	Water	300.0	
440-180840-2	MW-3	Total/NA	Water	300.0	
440-180840-3	SW-1	Total/NA	Water	300.0	
440-180840-4	SW-2	Total/NA	Water	300.0	
440-180840-5	MW-4	Total/NA	Water	300.0	
440-180840-5	MW-4	Total/NA	Water	300.0	
MB 440-396810/4	Method Blank	Total/NA	Water	300.0	
LCS 440-396810/2	Lab Control Sample	Total/NA	Water	300.0	
440-180840-5 MS	MW-4	Total/NA	Water	300.0	
440-180840-5 MSD	MW-4	Total/NA	Water	300.0	

Analysis Batch: 396811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-2	MW-3	Total/NA	Water	300.0	
440-180840-2	MW-3	Total/NA	Water	300.0	
440-180840-3	SW-1	Total/NA	Water	300.0	
440-180840-3	SW-1	Total/NA	Water	300.0	
440-180840-4	SW-2	Total/NA	Water	300.0	
440-180840-4	SW-2	Total/NA	Water	300.0	
440-180840-5	MW-4	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 396811 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-5	MW-4	Total/NA	Water	300.0	
MB 440-396811/4	Method Blank	Total/NA	Water	300.0	
LCS 440-396811/2	Lab Control Sample	Total/NA	Water	300.0	
440-180840-5 MS	MW-4	Total/NA	Water	300.0	
440-180840-5 MSD	MW-4	Total/NA	Water	300.0	

Metals

Prep Batch: 397435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total/NA	Water	7470A	
440-180840-2	MW-3	Total/NA	Water	7470A	
440-180840-3	SW-1	Total/NA	Water	7470A	
440-180840-4	SW-2	Total/NA	Water	7470A	
440-180840-5	MW-4	Total/NA	Water	7470A	
MB 440-397435/1-A	Method Blank	Total/NA	Water	7470A	
LCS 440-397435/2-A	Lab Control Sample	Total/NA	Water	7470A	
440-180840-1 MS	Northern Well	Total/NA	Water	7470A	
440-180840-1 MSD	Northern Well	Total/NA	Water	7470A	

Prep Batch: 397682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total Recoverable	Water	3005A	
440-180840-2	MW-3	Total Recoverable	Water	3005A	
440-180840-3	SW-1	Total Recoverable	Water	3005A	
440-180840-4	SW-2	Total Recoverable	Water	3005A	
440-180840-5	MW-4	Total Recoverable	Water	3005A	
MB 440-397682/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-397682/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-180538-A-4-C MS	Matrix Spike	Total Recoverable	Water	3005A	
440-180538-A-4-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Prep Batch: 397687

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total Recoverable	Water	200.2	
440-180840-2	MW-3	Total Recoverable	Water	200.2	
440-180840-3	SW-1	Total Recoverable	Water	200.2	
440-180840-4	SW-2	Total Recoverable	Water	200.2	
440-180840-5	MW-4	Total Recoverable	Water	200.2	
MB 440-397687/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-397687/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-180553-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.2	
440-180553-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.2	

Analysis Batch: 397727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total/NA	Water	7470A	397435
MB 440-397435/1-A	Method Blank	Total/NA	Water	7470A	397435
LCS 440-397435/2-A	Lab Control Sample	Total/NA	Water	7470A	397435
440-180840-1 MS	Northern Well	Total/NA	Water	7470A	397435

Metals (Continued)

Analysis Batch: 397727 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1 MSD	Northern Well	Total/NA	Water	7470A	397435

Analysis Batch: 397802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-2	MW-3	Total/NA	Water	7470A	397435
440-180840-3	SW-1	Total/NA	Water	7470A	397435
440-180840-4	SW-2	Total/NA	Water	7470A	397435
440-180840-5	MW-4	Total/NA	Water	7470A	397435

Analysis Batch: 398034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total Recoverable	Water	200.7 Rev 4.4	397687
440-180840-2	MW-3	Total Recoverable	Water	200.7 Rev 4.4	397687
440-180840-3	SW-1	Total Recoverable	Water	200.7 Rev 4.4	397687
440-180840-4	SW-2	Total Recoverable	Water	200.7 Rev 4.4	397687
440-180840-5	MW-4	Total Recoverable	Water	200.7 Rev 4.4	397687
MB 440-397687/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	397687
LCS 440-397687/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	397687
440-180553-A-1-B MS	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	397687
440-180553-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	397687

Analysis Batch: 398055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total Recoverable	Water	6010B	397682
440-180840-2	MW-3	Total Recoverable	Water	6010B	397682
440-180840-3	SW-1	Total Recoverable	Water	6010B	397682
440-180840-4	SW-2	Total Recoverable	Water	6010B	397682
440-180840-5	MW-4	Total Recoverable	Water	6010B	397682
MB 440-397682/1-A	Method Blank	Total Recoverable	Water	6010B	397682
LCS 440-397682/2-A	Lab Control Sample	Total Recoverable	Water	6010B	397682
440-180538-A-4-C MS	Matrix Spike	Total Recoverable	Water	6010B	397682
440-180538-A-4-D MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	397682

General Chemistry

Analysis Batch: 397043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total/NA	Water	SM 5540C	
440-180840-2	MW-3	Total/NA	Water	SM 5540C	
440-180840-3	SW-1	Total/NA	Water	SM 5540C	
440-180840-4	SW-2	Total/NA	Water	SM 5540C	
440-180840-5	MW-4	Total/NA	Water	SM 5540C	
MB 440-397043/3	Method Blank	Total/NA	Water	SM 5540C	
LCS 440-397043/4	Lab Control Sample	Total/NA	Water	SM 5540C	
440-180909-A-1 MS	Matrix Spike	Total/NA	Water	SM 5540C	
440-180909-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5540C	

Analysis Batch: 397068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 397068 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-2	MW-3	Total/NA	Water	SM 4500 H+ B	
440-180840-3	SW-1	Total/NA	Water	SM 4500 H+ B	
440-180840-4	SW-2	Total/NA	Water	SM 4500 H+ B	
440-180840-5	MW-4	Total/NA	Water	SM 4500 H+ B	
440-180840-1 DU	Northern Well	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 397069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total/NA	Water	SM 2320B	
440-180840-2	MW-3	Total/NA	Water	SM 2320B	
440-180840-3	SW-1	Total/NA	Water	SM 2320B	
440-180840-4	SW-2	Total/NA	Water	SM 2320B	
440-180840-5	MW-4	Total/NA	Water	SM 2320B	
MB 440-397069/30	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-397069/29	Lab Control Sample	Total/NA	Water	SM 2320B	
440-180840-1 DU	Northern Well	Total/NA	Water	SM 2320B	

Analysis Batch: 397249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total/NA	Water	SM 2540C	
440-180840-2	MW-3	Total/NA	Water	SM 2540C	
440-180840-3	SW-1	Total/NA	Water	SM 2540C	
440-180840-4	SW-2	Total/NA	Water	SM 2540C	
440-180840-5	MW-4	Total/NA	Water	SM 2540C	
MB 440-397249/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-397249/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-180840-1 DU	Northern Well	Total/NA	Water	SM 2540C	

Analysis Batch: 397621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Total/NA	Water	SM 2510B	
440-180840-2	MW-3	Total/NA	Water	SM 2510B	
440-180840-3	SW-1	Total/NA	Water	SM 2510B	
440-180840-4	SW-2	Total/NA	Water	SM 2510B	
440-180840-5	MW-4	Total/NA	Water	SM 2510B	
MB 440-397621/3	Method Blank	Total/NA	Water	SM 2510B	
LCS 440-397621/4	Lab Control Sample	Total/NA	Water	SM 2510B	
440-180840-5 DU	MW-4	Total/NA	Water	SM 2510B	

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

TestAmerica

Client Information	Sampler: Malcolm Thomas / Drew Lassen	Lab PM: Murray, Camille L	Carrier Tracking No(s):	COC No: 440-120307-19886.1
Client Contact: Drew Lassen	Phone: (805) 708-7200	E-Mail: camille.murray@testamericainc.com		Page: Page 1 of 1
Company: Langan Engineering & Environmental Srvcs				Job #:
Address: 32 Executive Park Suite 130	Due Date Requested:			
City: Irvine	TAT Requested (days): std.			
State, Zip: CA, 92614				
Phone: (805) 708-7200	PO #: ~~700045401~~ 721010301			
Email: dlassen@langan.com	WO #:			
Project Name: Soils/Groundwater	Project #: 44009948			
Site: Agua Mansa Commerce Park	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	7199 - Cr (VI)	6010B - California Administrative Manual List-Me	8260B_LL - Default 8260B Volatiles	General Chemistry	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	A	Z		
Northern Well	3/28/17	1030	G	Water			X	X		X		
MW-3	3/28/17	1200	G	Water			X	X		X		
SW-1	3/28/17	1245	G	Water			X	X		X		
SW-2	3/28/17	1310	G	Water			X	X		X		
MW-4	3/28/17	1510	G	Water			X	X		X		
				Water								
				Water								
				Water								

440-180840 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	3/29/17 1210					
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 3/29/17 1215	Company TA-I

Custody Seals Intact: ∆ Yes ∆ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: IR78 5.0/5.0

11/22/16 CK

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Srvcs

Job Number: 440-180840-1

Login Number: 180840

List Source: TestAmerica Irvine

List Number: 1

Creator: Skinner, Alma D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-180840-2
Client Project/Site: Agua Mansa Commerce Park

For:
Langan Engineering & Environmental Srvcs
32 Executive Park
Suite 130
Irvine, California 92614

Attn: Drew Lassen

Authorized for release by:
4/18/2017 11:35:06 AM

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 8
Lab Chronicle 9
QC Sample Results 11
QC Association Summary 14
Definitions/Glossary 16
Certification Summary 17
Chain of Custody 18
Receipt Checklists 19

Sample Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-180840-1	Northern Well	Water	03/28/17 10:30	03/29/17 12:15
440-180840-2	MW-3	Water	03/28/17 12:00	03/29/17 12:15
440-180840-3	SW-1	Water	03/28/17 12:45	03/29/17 12:15
440-180840-4	SW-2	Water	03/28/17 13:10	03/29/17 12:15
440-180840-5	MW-4	Water	03/28/17 15:10	03/29/17 12:15

Job ID: 440-180840-2

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-180840-2

Comments
No additional comments.

Receipt
The samples were received on 3/29/2017 12:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.0º C.

Receipt Exceptions

The following sample was received outside of holding time for Cr (VI) 7199: Northern Well (440-180840-1), MW-3 (440-180840-2), SW-1 (440-180840-3).

Metals
Method(s) 6010B: The continuing calibration blank (CCB) for analytical batch 440-400553 contained Lead above the reporting limit (RL). All reported samples associated with this CCB were ND for this analyte; therefore, re-analysis of samples was not performed.Northern Well (440-180840-1), MW-3 (440-180840-2), SW-1 (440-180840-3) and SW-2 (440-180840-4)

Method(s) 6010B: The method blank for preparation batch 440-399786 and 440-399903 contained Lead above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.Northern Well (440-180840-1), MW-3 (440-180840-2), SW-1 (440-180840-3) and SW-2 (440-180840-4)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample ID: Northern Well

Lab Sample ID: 440-180840-1

Date Collected: 03/28/17 10:30

Matrix: Water

Date Received: 03/29/17 12:15

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:15	1
Arsenic	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:15	1
Barium	**0.094**		0.010		mg/L		04/13/17 08:38	04/17/17 12:15	1
Beryllium	ND		0.0020		mg/L		04/13/17 08:38	04/17/17 12:15	1
Cadmium	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:15	1
Chromium	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:15	1
Cobalt	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:15	1
Copper	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:15	1
Lead	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:15	1
Molybdenum	ND		0.020		mg/L		04/13/17 08:38	04/17/17 12:15	1
Nickel	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:15	1
Selenium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:15	1
Thallium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:15	1
Vanadium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:15	1
Zinc	ND		0.020		mg/L		04/13/17 08:38	04/17/17 12:15	1
Silver	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:15	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/13/17 12:00	04/14/17 10:58	1

Client Sample ID: MW-3

Lab Sample ID: 440-180840-2

Date Collected: 03/28/17 12:00

Matrix: Water

Date Received: 03/29/17 12:15

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:26	1
Arsenic	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:26	1
Barium	**0.099**		0.010		mg/L		04/13/17 08:38	04/17/17 12:26	1
Beryllium	ND		0.0020		mg/L		04/13/17 08:38	04/17/17 12:26	1
Cadmium	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:26	1
Chromium	**0.018**		0.0050		mg/L		04/13/17 08:38	04/17/17 12:26	1
Cobalt	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:26	1
Copper	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:26	1
Lead	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:26	1
Molybdenum	ND		0.020		mg/L		04/13/17 08:38	04/17/17 12:26	1
Nickel	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:26	1
Selenium	**0.011**		0.010		mg/L		04/13/17 08:38	04/17/17 12:26	1
Thallium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:26	1
Vanadium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:26	1
Zinc	ND		0.020		mg/L		04/13/17 08:38	04/17/17 12:26	1
Silver	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:26	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/13/17 12:00	04/14/17 11:06	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-2

Client Sample ID: SW-1

Lab Sample ID: 440-180840-3

Date Collected: 03/28/17 12:45

Matrix: Water

Date Received: 03/29/17 12:15

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:28	1
Arsenic	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:28	1
Barium	**0.063**		0.010		mg/L		04/13/17 08:38	04/17/17 12:28	1
Beryllium	ND		0.0020		mg/L		04/13/17 08:38	04/17/17 12:28	1
Cadmium	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:28	1
Chromium	**0.0072**		0.0050		mg/L		04/13/17 08:38	04/17/17 12:28	1
Cobalt	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:28	1
Copper	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:28	1
Lead	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:28	1
Molybdenum	ND		0.020		mg/L		04/13/17 08:38	04/17/17 12:28	1
Nickel	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:28	1
Selenium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:28	1
Thallium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:28	1
Vanadium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:28	1
Zinc	ND		0.020		mg/L		04/13/17 08:38	04/17/17 12:28	1
Silver	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:28	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/13/17 12:00	04/14/17 11:09	1

Client Sample ID: SW-2

Lab Sample ID: 440-180840-4

Date Collected: 03/28/17 13:10

Matrix: Water

Date Received: 03/29/17 12:15

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:31	1
Arsenic	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:31	1
Barium	**0.050**		0.010		mg/L		04/13/17 08:38	04/17/17 12:31	1
Beryllium	ND		0.0020		mg/L		04/13/17 08:38	04/17/17 12:31	1
Cadmium	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:31	1
Chromium	**0.0059**		0.0050		mg/L		04/13/17 08:38	04/17/17 12:31	1
Cobalt	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:31	1
Copper	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:31	1
Lead	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:31	1
Molybdenum	ND		0.020		mg/L		04/13/17 08:38	04/17/17 12:31	1
Nickel	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:31	1
Selenium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:31	1
Thallium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:31	1
Vanadium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:31	1
Zinc	ND		0.020		mg/L		04/13/17 08:38	04/17/17 12:31	1
Silver	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:31	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/13/17 12:00	04/14/17 11:12	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-2

Client Sample ID: MW-4
Date Collected: 03/28/17 15:10
Date Received: 03/29/17 12:15

Lab Sample ID: 440-180840-5
Matrix: Water

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:42	1
Arsenic	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:42	1
Barium	**0.075**		0.010		mg/L		04/13/17 08:38	04/17/17 12:42	1
Beryllium	ND		0.0020		mg/L		04/13/17 08:38	04/17/17 12:42	1
Cadmium	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:42	1
Chromium	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:42	1
Cobalt	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:42	1
Copper	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:42	1
Lead	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 15:27	1
Molybdenum	ND		0.020		mg/L		04/13/17 08:38	04/17/17 12:42	1
Nickel	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:42	1
Selenium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:42	1
Thallium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:42	1
Vanadium	**0.011**		0.010		mg/L		04/13/17 08:38	04/17/17 12:42	1
Zinc	ND		0.020		mg/L		04/13/17 08:38	04/17/17 12:42	1
Silver	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:42	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/13/17 12:00	04/14/17 11:14	1

Method Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL IRV
7470A	Mercury (CVAA)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-2

Client Sample ID: Northern Well

Lab Sample ID: 440-180840-1

Date Collected: 03/28/17 10:30

Matrix: Water

Date Received: 03/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			100 mL	100 mL	399786	04/12/17 16:50	JL	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	399903	04/13/17 08:38	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			400553	04/17/17 12:15	EN	TAL IRV
Dissolved	Filtration	FILTRATION			100 mL	100 mL	399786	04/12/17 16:50	JL	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	399982	04/13/17 12:00	B1H	TAL IRV
Dissolved	Analysis	7470A		1			400216	04/14/17 10:58	B1H	TAL IRV

Client Sample ID: MW-3

Lab Sample ID: 440-180840-2

Date Collected: 03/28/17 12:00

Matrix: Water

Date Received: 03/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			100 mL	100 mL	399786	04/12/17 16:50	JL	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	399903	04/13/17 08:38	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			400553	04/17/17 12:26	EN	TAL IRV
Dissolved	Filtration	FILTRATION			100 mL	100 mL	399786	04/12/17 16:50	JL	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	399982	04/13/17 12:00	B1H	TAL IRV
Dissolved	Analysis	7470A		1			400216	04/14/17 11:06	B1H	TAL IRV

Client Sample ID: SW-1

Lab Sample ID: 440-180840-3

Date Collected: 03/28/17 12:45

Matrix: Water

Date Received: 03/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			100 mL	100 mL	399786	04/12/17 16:50	JL	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	399903	04/13/17 08:38	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			400553	04/17/17 12:28	EN	TAL IRV
Dissolved	Filtration	FILTRATION			100 mL	100 mL	399786	04/12/17 16:50	JL	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	399982	04/13/17 12:00	B1H	TAL IRV
Dissolved	Analysis	7470A		1			400216	04/14/17 11:09	B1H	TAL IRV

Client Sample ID: SW-2

Lab Sample ID: 440-180840-4

Date Collected: 03/28/17 13:10

Matrix: Water

Date Received: 03/29/17 12:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			25 mL	25 mL	399786	04/12/17 16:50	JL	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	399903	04/13/17 08:38	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			400553	04/17/17 12:31	EN	TAL IRV
Dissolved	Filtration	FILTRATION			25 mL	25 mL	399786	04/12/17 16:50	JL	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	399982	04/13/17 12:00	B1H	TAL IRV
Dissolved	Analysis	7470A		1			400216	04/14/17 11:12	B1H	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-2

Client Sample ID: MW-4
Date Collected: 03/28/17 15:10
Date Received: 03/29/17 12:15

Lab Sample ID: 440-180840-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			25 mL	25 mL	399786	04/12/17 16:50	JL	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	399903	04/13/17 08:38	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			400601	04/17/17 15:27	EN	TAL IRV
Dissolved	Filtration	FILTRATION			25 mL	25 mL	399786	04/12/17 16:50	JL	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	399903	04/13/17 08:38	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			400553	04/17/17 12:42	EN	TAL IRV
Dissolved	Filtration	FILTRATION			25 mL	25 mL	399786	04/12/17 16:50	JL	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	399982	04/13/17 12:00	B1H	TAL IRV
Dissolved	Analysis	7470A		1			400216	04/14/17 11:14	B1H	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-2

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-399786/1-D
Matrix: Water
Analysis Batch: 400553

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 399903

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:11	1
Arsenic	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:11	1
Barium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:11	1
Beryllium	ND		0.0020		mg/L		04/13/17 08:38	04/17/17 12:11	1
Cadmium	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:11	1
Chromium	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 12:11	1
Cobalt	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:11	1
Copper	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:11	1
Lead	0.00570		0.0050		mg/L		04/13/17 08:38	04/17/17 12:11	1
Molybdenum	ND		0.020		mg/L		04/13/17 08:38	04/17/17 12:11	1
Nickel	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:11	1
Selenium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:11	1
Thallium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:11	1
Vanadium	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:11	1
Zinc	ND		0.020		mg/L		04/13/17 08:38	04/17/17 12:11	1
Silver	ND		0.010		mg/L		04/13/17 08:38	04/17/17 12:11	1

Lab Sample ID: MB 440-399786/1-D
Matrix: Water
Analysis Batch: 400601

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 399903

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050		mg/L		04/13/17 08:38	04/17/17 15:25	1

Lab Sample ID: LCS 440-399786/2-D
Matrix: Water
Analysis Batch: 400553

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 399903

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			1.00	0.988		mg/L		99	80 - 120		
Arsenic			1.00	0.962		mg/L		96	80 - 120		
Barium			1.00	0.978		mg/L		98	80 - 120		
Beryllium			1.00	0.995		mg/L		99	80 - 120		
Cadmium			1.00	0.980		mg/L		98	80 - 120		
Chromium			1.00	0.988		mg/L		99	80 - 120		
Cobalt			1.00	1.07		mg/L		107	80 - 120		
Copper			1.00	0.996		mg/L		100	80 - 120		
Lead			1.00	1.00		mg/L		100	80 - 120		
Molybdenum			1.00	0.989		mg/L		99	80 - 120		
Nickel			1.00	0.972		mg/L		97	80 - 120		
Selenium			1.00	0.911		mg/L		91	80 - 120		
Thallium			1.00	1.01		mg/L		101	80 - 120		
Vanadium			1.00	0.988		mg/L		99	80 - 120		
Zinc			1.00	0.951		mg/L		95	80 - 120		
Silver			0.500	0.487		mg/L		97	80 - 120		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-180840-1 MS
Matrix: Water
Analysis Batch: 400553

Client Sample ID: Northern Well
Prep Type: Dissolved
Prep Batch: 399903

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		1.00	1.01		mg/L		101	75 - 125
Arsenic	ND		1.00	1.00		mg/L		100	75 - 125
Barium	0.094		1.00	1.07		mg/L		98	75 - 125
Beryllium	ND		1.00	1.01		mg/L		101	75 - 125
Cadmium	ND		1.00	0.955		mg/L		95	75 - 125
Chromium	ND		1.00	0.987		mg/L		99	75 - 125
Cobalt	ND		1.00	1.05		mg/L		105	75 - 125
Copper	ND		1.00	1.03		mg/L		103	75 - 125
Lead	ND		1.00	0.988		mg/L		99	75 - 125
Molybdenum	ND		1.00	1.01		mg/L		101	75 - 125
Nickel	ND		1.00	0.962		mg/L		96	75 - 125
Selenium	ND		1.00	0.913		mg/L		91	75 - 125
Thallium	ND		1.00	0.976		mg/L		98	75 - 125
Vanadium	ND		1.00	1.00		mg/L		100	75 - 125
Zinc	ND		1.00	0.955		mg/L		96	75 - 125
Silver	ND		0.500	0.502		mg/L		100	75 - 125

Lab Sample ID: 440-180840-1 MSD
Matrix: Water
Analysis Batch: 400553

Client Sample ID: Northern Well
Prep Type: Dissolved
Prep Batch: 399903

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		1.00	0.969		mg/L		97	75 - 125	4	20
Arsenic	ND		1.00	0.946		mg/L		95	75 - 125	6	20
Barium	0.094		1.00	1.03		mg/L		93	75 - 125	4	20
Beryllium	ND		1.00	0.943		mg/L		94	75 - 125	7	20
Cadmium	ND		1.00	0.924		mg/L		92	75 - 125	3	20
Chromium	ND		1.00	0.946		mg/L		95	75 - 125	4	20
Cobalt	ND		1.00	1.00		mg/L		100	75 - 125	5	20
Copper	ND		1.00	0.993		mg/L		99	75 - 125	4	20
Lead	ND		1.00	0.947		mg/L		95	75 - 125	4	20
Molybdenum	ND		1.00	0.963		mg/L		96	75 - 125	5	20
Nickel	ND		1.00	0.916		mg/L		92	75 - 125	5	20
Selenium	ND		1.00	0.874		mg/L		87	75 - 125	4	20
Thallium	ND		1.00	0.943		mg/L		94	75 - 125	3	20
Vanadium	ND		1.00	0.959		mg/L		96	75 - 125	4	20
Zinc	ND		1.00	0.918		mg/L		92	75 - 125	4	20
Silver	ND		0.500	0.477		mg/L		95	75 - 125	5	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 440-399786/1-E
Matrix: Water
Analysis Batch: 400216

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 399982

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		04/13/17 12:00	04/14/17 10:53	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 440-399786/2-E
Matrix: Water
Analysis Batch: 400216

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 399982

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00800	0.00798		mg/L		100	80 - 120		

Lab Sample ID: 440-180840-1 MS
Matrix: Water
Analysis Batch: 400216

Client Sample ID: Northern Well
Prep Type: Dissolved
Prep Batch: 399982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00800	0.00784		mg/L		98	70 - 130		

Lab Sample ID: 440-180840-1 MSD
Matrix: Water
Analysis Batch: 400216

Client Sample ID: Northern Well
Prep Type: Dissolved
Prep Batch: 399982

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00800	0.00771		mg/L		96	70 - 130	2	20

Metals

Filtration Batch: 399786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Dissolved	Water	FILTRATION	
440-180840-2	MW-3	Dissolved	Water	FILTRATION	
440-180840-3	SW-1	Dissolved	Water	FILTRATION	
440-180840-4	SW-2	Dissolved	Water	FILTRATION	
440-180840-5	MW-4	Dissolved	Water	FILTRATION	
MB 440-399786/1-D	Method Blank	Dissolved	Water	FILTRATION	
MB 440-399786/1-E	Method Blank	Dissolved	Water	FILTRATION	
LCS 440-399786/2-D	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 440-399786/2-E	Lab Control Sample	Dissolved	Water	FILTRATION	
440-180840-1 MS	Northern Well	Dissolved	Water	FILTRATION	
440-180840-1 MSD	Northern Well	Dissolved	Water	FILTRATION	

Prep Batch: 399903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Dissolved	Water	3005A	399786
440-180840-2	MW-3	Dissolved	Water	3005A	399786
440-180840-3	SW-1	Dissolved	Water	3005A	399786
440-180840-4	SW-2	Dissolved	Water	3005A	399786
440-180840-5	MW-4	Dissolved	Water	3005A	399786
MB 440-399786/1-D	Method Blank	Dissolved	Water	3005A	399786
LCS 440-399786/2-D	Lab Control Sample	Dissolved	Water	3005A	399786
440-180840-1 MS	Northern Well	Dissolved	Water	3005A	399786
440-180840-1 MSD	Northern Well	Dissolved	Water	3005A	399786

Prep Batch: 399982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Dissolved	Water	7470A	399786
440-180840-2	MW-3	Dissolved	Water	7470A	399786
440-180840-3	SW-1	Dissolved	Water	7470A	399786
440-180840-4	SW-2	Dissolved	Water	7470A	399786
440-180840-5	MW-4	Dissolved	Water	7470A	399786
MB 440-399786/1-E	Method Blank	Dissolved	Water	7470A	399786
LCS 440-399786/2-E	Lab Control Sample	Dissolved	Water	7470A	399786
440-180840-1 MS	Northern Well	Dissolved	Water	7470A	399786
440-180840-1 MSD	Northern Well	Dissolved	Water	7470A	399786

Analysis Batch: 400216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Dissolved	Water	7470A	399982
440-180840-2	MW-3	Dissolved	Water	7470A	399982
440-180840-3	SW-1	Dissolved	Water	7470A	399982
440-180840-4	SW-2	Dissolved	Water	7470A	399982
440-180840-5	MW-4	Dissolved	Water	7470A	399982
MB 440-399786/1-E	Method Blank	Dissolved	Water	7470A	399982
LCS 440-399786/2-E	Lab Control Sample	Dissolved	Water	7470A	399982
440-180840-1 MS	Northern Well	Dissolved	Water	7470A	399982
440-180840-1 MSD	Northern Well	Dissolved	Water	7470A	399982

Analysis Batch: 400553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-1	Northern Well	Dissolved	Water	6010B	399903

Metals (Continued)

Analysis Batch: 400553 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-2	MW-3	Dissolved	Water	6010B	399903
440-180840-3	SW-1	Dissolved	Water	6010B	399903
440-180840-4	SW-2	Dissolved	Water	6010B	399903
440-180840-5	MW-4	Dissolved	Water	6010B	399903
MB 440-399786/1-D	Method Blank	Dissolved	Water	6010B	399903
LCS 440-399786/2-D	Lab Control Sample	Dissolved	Water	6010B	399903
440-180840-1 MS	Northern Well	Dissolved	Water	6010B	399903
440-180840-1 MSD	Northern Well	Dissolved	Water	6010B	399903

Analysis Batch: 400601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-180840-5	MW-4	Dissolved	Water	6010B	399903
MB 440-399786/1-D	Method Blank	Dissolved	Water	6010B	399903

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-180840-2

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

TestAmerica

Client Information	Sampler: Malcolm Thomas / Drew Lassen	Lab PM: Murray, Camille L	Carrier Tracking No(s):	COC No: 440-120307-19886.1
Client Contact: Drew Lassen	Phone: (805) 708-7200	E-Mail: camille.murray@testamericainc.com		Page: Page 1 of 1
Company: Langan Engineering & Environmental Srvcs				Job #:
Address: 32 Executive Park Suite 130	Due Date Requested:			
City: Irvine	TAT Requested (days): std.			
State, Zip: CA, 92614				
Phone: (805) 708-7200	PO #: ~~700045401~~ 721010301			
Email: dlassen@langan.com	WO #:			
Project Name: Soils/Groundwater	Project #: 44009948			
Site: Agua Mansa Commerce Park	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	7199 Cr (VI)	6010B - California Administrative Manual List-Me	8260B_LL - Default 8260B Volatiles	General Chemistry	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	D	A	Z		
Northern Well	3/28/17	1030	G	Water			X	X		X		
MW-3	3/28/17	1200	G	Water			X	X		X		
SW-1	3/28/17	1245	G	Water			X	X		X		
SW-2	3/28/17	1310	G	Water			X	X		X		
NW-4	3/28/17	1510	G	Water			X	X		X		
				Water								
				Water								
				Water								

440-180840 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3/29/17 1010					
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 3/29/17 1215	Company TA-I

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: IR78 5.0/5.0

L 11/2/16 CK

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Srvcs

Job Number: 440-180840-2

Login Number: 180840

List Source: TestAmerica Irvine

List Number: 1

Creator: Skinner, Alma D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-166509-1
Client Project/Site: Riverside Cement Plant

For:
Langan Engineering & Environmental Srvcs
32 Executive Park
Suite 130
Irvine, California 92614

Attn: Drew Lassen

Authorized for release by:
11/30/2016 2:31:02 PM

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

LINKS

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Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 19
Lab Chronicle 20
QC Sample Results 24
QC Association Summary 52
Definitions/Glossary 58
Certification Summary 59
Chain of Custody 60
Receipt Checklists 61

Sample Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-166509-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-166509-1	MW-3-20161118	Water	11/18/16 12:45	11/18/16 15:30
440-166509-2	MW-4-20161118	Water	11/18/16 10:20	11/18/16 15:30
440-166509-3	SW-1-20161118	Water	11/18/16 12:10	11/18/16 15:30
440-166509-4	SW-2-20161118	Water	11/18/16 13:40	11/18/16 15:30
440-166509-5	TB-1-20161118	Water	11/18/16 10:00	11/18/16 15:30
440-166509-6	MW-30-20161118	Water	11/18/16 12:46	11/18/16 15:30

Job ID: 440-166509-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-166509-1

Comments
No additional comments.

Receipt
The samples were received on 11/18/2016 3:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
Method(s) 300.0: Due to the high concentration of Chloride and/or Sulfate, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 440-370129 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 200.7 Rev 4.4: The laboratory control sample (LCS) for preparation batch 440-370992 and analytical batch 440-371810 recovered outside control limits for the following analytes: Iron, Manganese. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample ID: MW-3-20161118
Date Collected: 11/18/16 12:45
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			11/25/16 09:09	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			11/25/16 09:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			11/25/16 09:09	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			11/25/16 09:09	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/25/16 09:09	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Benzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Bromobenzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Bromochloromethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Bromodichloromethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Bromoform	ND		1.0	0.40	ug/L			11/25/16 09:09	1
Bromomethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Chlorobenzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Chloroethane	ND		1.0	0.40	ug/L			11/25/16 09:09	1
Chloroform	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Chloromethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Dibromochloromethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Dibromomethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			11/25/16 09:09	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Isopropylbenzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
m,p-Xylene	ND		1.0	0.50	ug/L			11/25/16 09:09	1
Methylene Chloride	ND		2.0	0.88	ug/L			11/25/16 09:09	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Naphthalene	ND		1.0	0.40	ug/L			11/25/16 09:09	1
n-Butylbenzene	ND		1.0	0.40	ug/L			11/25/16 09:09	1
N-Propylbenzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
o-Xylene	ND		0.50	0.25	ug/L			11/25/16 09:09	1

Client Sample ID: MW-3-20161118
Date Collected: 11/18/16 12:45
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Styrene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			11/25/16 09:09	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			11/25/16 09:09	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Tetrachloroethene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Toluene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
trans-1,2-Dichloroethene	**0.32**	**J**	0.50	0.25	ug/L			11/25/16 09:09	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Trichloroethene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Vinyl chloride	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Xylenes, Total	ND		1.0	0.50	ug/L			11/25/16 09:09	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1
Ethylbenzene	ND		0.50	0.25	ug/L			11/25/16 09:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*80 - 120*		*11/25/16 09:09*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*11/25/16 09:09*	*1*
Toluene-d8 (Surr)	*96*		*80 - 128*		*11/25/16 09:09*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**65**		25	13	mg/L			11/18/16 23:19	50
Nitrate as N	**19**		5.5	2.8	mg/L			11/18/16 23:19	50
Nitrite as N	ND		0.15	0.070	mg/L			11/18/16 23:06	1
Sulfate	**160**		25	13	mg/L			11/18/16 23:19	50
Nitrate as NO3	**82**		25	13	mg/L			11/18/16 23:19	50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**140**		0.10	0.050	mg/L		11/21/16 10:58	11/22/16 20:29	1
Copper	ND		0.010	0.0050	mg/L		11/21/16 10:58	11/22/16 20:29	1
Iron	**0.11**		0.040	0.010	mg/L		11/21/16 10:58	11/22/16 20:29	1
Potassium	**4.5**		0.50	0.25	mg/L		11/21/16 10:58	11/22/16 20:29	1
Magnesium	**17**		0.020	0.010	mg/L		11/21/16 10:58	11/22/16 20:29	1
Manganese	ND		0.020	0.010	mg/L		11/21/16 10:58	11/22/16 20:29	1
Sodium	**87**		0.50	0.25	mg/L		11/21/16 10:58	11/22/16 20:29	1
Zinc	**0.022**		0.020	0.010	mg/L		11/21/16 10:58	11/22/16 20:29	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/22/16 11:50	11/26/16 13:03	1
Arsenic	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:03	1
Barium	**0.097**		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:03	1
Beryllium	ND		0.0020	0.0010	mg/L		11/22/16 11:50	11/26/16 13:03	1
Cadmium	ND		0.0050	0.0020	mg/L		11/22/16 11:50	11/26/16 13:03	1
Chromium	**0.020**		0.0050	0.0025	mg/L		11/22/16 11:50	11/26/16 13:03	1
Cobalt	ND		0.010	0.0025	mg/L		11/22/16 11:50	11/26/16 13:03	1

Client Sample ID: MW-3-20161118
Date Collected: 11/18/16 12:45
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-1
Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:03	1
Lead	ND		0.0050	0.0025	mg/L		11/22/16 11:50	11/26/16 13:03	1
Molybdenum	ND		0.020	0.010	mg/L		11/22/16 11:50	11/26/16 13:03	1
Nickel	**0.0059**	**J**	0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:03	1
Selenium	**0.0094**	**J**	0.010	0.0061	mg/L		11/22/16 11:50	11/26/16 13:03	1
Thallium	**0.0079**	**J B**	0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:03	1
Vanadium	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:03	1
Zinc	**0.012**	**J**	0.020	0.010	mg/L		11/22/16 11:50	11/26/16 13:03	1
Silver	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:03	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/22/16 09:14	11/26/16 13:44	1
Selenium	**0.0081**	**J**	0.010	0.0061	mg/L		11/22/16 09:14	11/26/16 13:44	1
Molybdenum	ND		0.020	0.010	mg/L		11/22/16 09:14	11/26/16 13:44	1
Lead	**0.0036**	**J**	0.0050	0.0025	mg/L		11/22/16 09:14	11/26/16 13:44	1
Zinc	ND		0.020	0.010	mg/L		11/22/16 09:14	11/26/16 13:44	1
Vanadium	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:44	1
Thallium	**0.0082**	**J B**	0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:44	1
Nickel	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:44	1
Copper	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:44	1
Cobalt	ND		0.010	0.0025	mg/L		11/22/16 09:14	11/26/16 13:44	1
Chromium	**0.019**		0.0050	0.0025	mg/L		11/22/16 09:14	11/26/16 13:44	1
Cadmium	ND		0.0050	0.0020	mg/L		11/22/16 09:14	11/26/16 13:44	1
Beryllium	ND		0.0020	0.0010	mg/L		11/22/16 09:14	11/26/16 13:44	1
Barium	**0.10**		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:44	1
Arsenic	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:44	1
Silver	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/28/16 13:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		11/21/16 12:43	11/21/16 21:53	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		11/22/16 11:15	11/22/16 19:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**0.021**	**J**	0.025	0.0050	mg/L			11/18/16 20:58	1
Total Alkalinity as CaCO3	**250**		4.0	4.0	mg/L			11/19/16 12:15	1
Bicarbonate Alkalinity as CaCO3	**250**		4.0	4.0	mg/L			11/19/16 12:15	1
Carbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/19/16 12:15	1
Hydroxide Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/19/16 12:15	1
Specific Conductance	**1000**		1.0		umhos/cm			11/21/16 12:41	1
Total Dissolved Solids	**700**		10		mg/L			11/22/16 09:22	1
Fluoride	**0.20**		0.10	0.050	mg/L			11/21/16 09:21	1
pH	**7.5**	**HF**	0.1		SU			11/25/16 13:42	1
Methylene Blue Active Substances	ND		0.10	0.050	mg/L			11/18/16 22:45	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-166509-1

Client Sample ID: MW-4-20161118
Date Collected: 11/18/16 10:20
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			11/23/16 20:25	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			11/23/16 20:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			11/23/16 20:25	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			11/23/16 20:25	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/16 20:25	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Benzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Bromobenzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Bromochloromethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Bromodichloromethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Bromoform	ND		1.0	0.40	ug/L			11/23/16 20:25	1
Bromomethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Chlorobenzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Chloroethane	ND		1.0	0.40	ug/L			11/23/16 20:25	1
Chloroform	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Chloromethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Dibromochloromethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Dibromomethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			11/23/16 20:25	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Isopropylbenzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
m,p-Xylene	ND		1.0	0.50	ug/L			11/23/16 20:25	1
Methylene Chloride	ND		2.0	0.88	ug/L			11/23/16 20:25	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Naphthalene	ND		1.0	0.40	ug/L			11/23/16 20:25	1
n-Butylbenzene	ND		1.0	0.40	ug/L			11/23/16 20:25	1
N-Propylbenzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
o-Xylene	ND		0.50	0.25	ug/L			11/23/16 20:25	1

Client Sample ID: MW-4-20161118
Date Collected: 11/18/16 10:20
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Styrene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			11/23/16 20:25	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			11/23/16 20:25	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Tetrachloroethene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Toluene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
trans-1,2-Dichloroethene	**0.66**		0.50	0.25	ug/L			11/23/16 20:25	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Trichloroethene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Vinyl chloride	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Xylenes, Total	ND		1.0	0.50	ug/L			11/23/16 20:25	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1
Ethylbenzene	ND		0.50	0.25	ug/L			11/23/16 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*80 - 120*		*11/23/16 20:25*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*11/23/16 20:25*	*1*
Toluene-d8 (Surr)	*99*		*80 - 128*		*11/23/16 20:25*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**47**		10	5.0	mg/L			11/18/16 23:44	20
Nitrate as N	**15**		2.2	1.1	mg/L			11/18/16 23:44	20
Nitrite as N	ND		0.15	0.070	mg/L			11/18/16 23:32	1
Sulfate	**82**		10	5.0	mg/L			11/18/16 23:44	20
Nitrate as NO3	**67**		10	5.0	mg/L			11/18/16 23:44	20

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**84**		0.10	0.050	mg/L		11/21/16 10:58	11/22/16 20:27	1
Copper	**0.0091**	**J**	0.010	0.0050	mg/L		11/21/16 10:58	11/22/16 20:27	1
Iron	**0.84**		0.040	0.010	mg/L		11/21/16 10:58	11/22/16 20:27	1
Potassium	**8.6**		0.50	0.25	mg/L		11/21/16 10:58	11/22/16 20:27	1
Magnesium	**15**		0.020	0.010	mg/L		11/21/16 10:58	11/22/16 20:27	1
Manganese	**0.066**		0.020	0.010	mg/L		11/21/16 10:58	11/22/16 20:27	1
Sodium	**81**		0.50	0.25	mg/L		11/21/16 10:58	11/22/16 20:27	1
Zinc	**0.023**		0.020	0.010	mg/L		11/21/16 10:58	11/22/16 20:27	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/22/16 11:50	11/26/16 13:17	1
Arsenic	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:17	1
Barium	**0.11**		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:17	1
Beryllium	ND		0.0020	0.0010	mg/L		11/22/16 11:50	11/26/16 13:17	1
Cadmium	ND		0.0050	0.0020	mg/L		11/22/16 11:50	11/26/16 13:17	1
Chromium	**0.0029**	**J**	0.0050	0.0025	mg/L		11/22/16 11:50	11/26/16 13:17	1
Cobalt	ND		0.010	0.0025	mg/L		11/22/16 11:50	11/26/16 13:17	1

Client Sample ID: MW-4-20161118
Date Collected: 11/18/16 10:20
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-2
Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:17	1
Lead	**0.0033**	**J**	0.0050	0.0025	mg/L		11/22/16 11:50	11/26/16 13:17	1
Molybdenum	ND		0.020	0.010	mg/L		11/22/16 11:50	11/26/16 13:17	1
Nickel	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:17	1
Selenium	ND		0.010	0.0061	mg/L		11/22/16 11:50	11/26/16 13:17	1
Thallium	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:17	1
Vanadium	**0.013**		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:17	1
Zinc	**0.018**	**J**	0.020	0.010	mg/L		11/22/16 11:50	11/26/16 13:17	1
Silver	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:17	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/22/16 09:14	11/26/16 13:54	1
Selenium	ND		0.010	0.0061	mg/L		11/22/16 09:14	11/26/16 13:54	1
Molybdenum	ND		0.020	0.010	mg/L		11/22/16 09:14	11/26/16 13:54	1
Lead	ND		0.0050	0.0025	mg/L		11/22/16 09:14	11/26/16 13:54	1
Zinc	**0.016**	**J**	0.020	0.010	mg/L		11/22/16 09:14	11/26/16 13:54	1
Vanadium	**0.012**		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:54	1
Thallium	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:54	1
Nickel	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:54	1
Copper	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:54	1
Cobalt	ND		0.010	0.0025	mg/L		11/22/16 09:14	11/26/16 13:54	1
Chromium	ND		0.0050	0.0025	mg/L		11/22/16 09:14	11/26/16 13:54	1
Cadmium	ND		0.0050	0.0020	mg/L		11/22/16 09:14	11/26/16 13:54	1
Beryllium	ND		0.0020	0.0010	mg/L		11/22/16 09:14	11/26/16 13:54	1
Barium	**0.094**		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:54	1
Arsenic	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:54	1
Silver	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/28/16 13:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		11/21/16 12:43	11/21/16 21:49	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		11/22/16 11:15	11/22/16 19:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**0.020**	**J**	0.025	0.0050	mg/L			11/18/16 20:58	1
Total Alkalinity as CaCO3	**270**		4.0	4.0	mg/L			11/19/16 12:23	1
Bicarbonate Alkalinity as CaCO3	**270**		4.0	4.0	mg/L			11/19/16 12:23	1
Carbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/19/16 12:23	1
Hydroxide Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/19/16 12:23	1
Specific Conductance	**880**		1.0		umhos/cm			11/21/16 12:41	1
Total Dissolved Solids	**570**		10		mg/L			11/22/16 09:22	1
Fluoride	**0.25**		0.10	0.050	mg/L			11/21/16 09:39	1
pH	**7.7**	**HF**	0.1		SU			11/25/16 13:42	1
Methylene Blue Active Substances	ND		0.10	0.050	mg/L			11/18/16 22:45	1

Client Sample ID: SW-1-20161118

Date Collected: 11/18/16 12:10
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-3

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/22/16 11:50	11/26/16 13:14	1
Arsenic	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:14	1
Barium	**0.063**		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:14	1
Beryllium	ND		0.0020	0.0010	mg/L		11/22/16 11:50	11/26/16 13:14	1
Cadmium	ND		0.0050	0.0020	mg/L		11/22/16 11:50	11/26/16 13:14	1
Chromium	**0.0043**	**J**	0.0050	0.0025	mg/L		11/22/16 11:50	11/26/16 13:14	1
Cobalt	ND		0.010	0.0025	mg/L		11/22/16 11:50	11/26/16 13:14	1
Copper	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:14	1
Lead	ND		0.0050	0.0025	mg/L		11/22/16 11:50	11/26/16 13:14	1
Molybdenum	**0.013**	**J**	0.020	0.010	mg/L		11/22/16 11:50	11/26/16 13:14	1
Nickel	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:14	1
Selenium	ND		0.010	0.0061	mg/L		11/22/16 11:50	11/26/16 13:14	1
Thallium	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:14	1
Vanadium	**0.0074**	**J**	0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:14	1
Zinc	ND		0.020	0.010	mg/L		11/22/16 11:50	11/26/16 13:14	1
Silver	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:14	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/22/16 09:14	11/26/16 13:57	1
Selenium	ND		0.010	0.0061	mg/L		11/22/16 09:14	11/26/16 13:57	1
Molybdenum	**0.013**	**J**	0.020	0.010	mg/L		11/22/16 09:14	11/26/16 13:57	1
Lead	ND		0.0050	0.0025	mg/L		11/22/16 09:14	11/26/16 13:57	1
Zinc	ND		0.020	0.010	mg/L		11/22/16 09:14	11/26/16 13:57	1
Vanadium	**0.0071**	**J**	0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:57	1
Thallium	**0.0073**	**J B**	0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:57	1
Nickel	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:57	1
Copper	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:57	1
Cobalt	ND		0.010	0.0025	mg/L		11/22/16 09:14	11/26/16 13:57	1
Chromium	**0.0043**	**J**	0.0050	0.0025	mg/L		11/22/16 09:14	11/26/16 13:57	1
Cadmium	ND		0.0050	0.0020	mg/L		11/22/16 09:14	11/26/16 13:57	1
Beryllium	ND		0.0020	0.0010	mg/L		11/22/16 09:14	11/26/16 13:57	1
Barium	**0.059**		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:57	1
Arsenic	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:57	1
Silver	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/28/16 13:51	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		11/21/16 12:43	11/21/16 21:46	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		11/22/16 11:15	11/22/16 19:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**0.018**	**J**	0.025	0.0050	mg/L			11/18/16 20:58	1
Total Dissolved Solids	**460**		10		mg/L			11/22/16 09:22	1
pH	**8.1**	**HF**	0.1		SU			11/25/16 13:42	1

Client Sample ID: SW-2-20161118

Date Collected: 11/18/16 13:40
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**58**		5.0	2.5	mg/L			11/19/16 01:00	10
Nitrate as N	**4.5**		0.11	0.055	mg/L			11/19/16 00:47	1
Nitrite as N	ND		0.15	0.070	mg/L			11/19/16 00:47	1
Sulfate	**150**		5.0	2.5	mg/L			11/19/16 01:00	10
Nitrate as NO3	**20**		0.50	0.25	mg/L			11/19/16 00:47	1

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**34**		0.10	0.050	mg/L		11/22/16 11:49	11/29/16 14:57	1
Copper	ND		0.010	0.0050	mg/L		11/22/16 11:49	11/26/16 15:35	1
Iron	**0.015**	**J ***	0.040	0.010	mg/L		11/22/16 11:49	11/26/16 15:35	1
Potassium	**37**		0.50	0.25	mg/L		11/22/16 11:49	11/26/16 15:35	1
Magnesium	**15**		0.020	0.010	mg/L		11/22/16 11:49	11/26/16 15:35	1
Manganese	ND	*	0.020	0.010	mg/L		11/22/16 11:49	11/26/16 15:35	1
Sodium	**82**		0.50	0.25	mg/L		11/22/16 11:49	11/26/16 15:35	1
Zinc	ND		0.020	0.010	mg/L		11/22/16 11:49	11/26/16 15:35	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/22/16 11:50	11/26/16 13:19	1
Arsenic	**0.0051**	**J**	0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:19	1
Barium	**0.059**		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:19	1
Beryllium	ND		0.0020	0.0010	mg/L		11/22/16 11:50	11/26/16 13:19	1
Cadmium	ND		0.0050	0.0020	mg/L		11/22/16 11:50	11/26/16 13:19	1
Chromium	**0.0044**	**J**	0.0050	0.0025	mg/L		11/22/16 11:50	11/26/16 13:19	1
Cobalt	ND		0.010	0.0025	mg/L		11/22/16 11:50	11/26/16 13:19	1
Copper	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:19	1
Lead	ND		0.0050	0.0025	mg/L		11/22/16 11:50	11/26/16 13:19	1
Molybdenum	**0.011**	**J**	0.020	0.010	mg/L		11/22/16 11:50	11/26/16 13:19	1
Nickel	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:19	1
Selenium	ND		0.010	0.0061	mg/L		11/22/16 11:50	11/26/16 13:19	1
Thallium	**0.0064**	**J B**	0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:19	1
Vanadium	**0.0069**	**J**	0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:19	1
Zinc	ND		0.020	0.010	mg/L		11/22/16 11:50	11/26/16 13:19	1
Silver	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 13:19	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/22/16 09:14	11/26/16 14:00	1
Selenium	ND		0.010	0.0061	mg/L		11/22/16 09:14	11/26/16 14:00	1
Molybdenum	**0.014**	**J**	0.020	0.010	mg/L		11/22/16 09:14	11/26/16 14:00	1
Lead	**0.0033**	**J**	0.0050	0.0025	mg/L		11/22/16 09:14	11/26/16 14:00	1
Zinc	ND		0.020	0.010	mg/L		11/22/16 09:14	11/26/16 14:00	1
Vanadium	**0.0071**	**J**	0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 14:00	1
Thallium	**0.0065**	**J B**	0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 14:00	1
Nickel	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 14:00	1
Copper	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 14:00	1
Cobalt	ND		0.010	0.0025	mg/L		11/22/16 09:14	11/26/16 14:00	1
Chromium	**0.0043**	**J**	0.0050	0.0025	mg/L		11/22/16 09:14	11/26/16 14:00	1
Cadmium	ND		0.0050	0.0020	mg/L		11/22/16 09:14	11/26/16 14:00	1

Client Sample ID: SW-2-20161118
Lab Sample ID: 440-166509-4
Date Collected: 11/18/16 13:40
Matrix: Water
Date Received: 11/18/16 15:30

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0020	0.0010	mg/L		11/22/16 09:14	11/26/16 14:00	1
Barium	**0.059**		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 14:00	1
Arsenic	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 14:00	1
Silver	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/28/16 13:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		11/21/16 12:43	11/21/16 21:43	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		11/22/16 11:15	11/22/16 19:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**0.039**		0.025	0.0050	mg/L			11/18/16 20:58	1
Total Alkalinity as CaCO3	**89**		4.0	4.0	mg/L			11/19/16 12:37	1
Bicarbonate Alkalinity as CaCO3	**89**		4.0	4.0	mg/L			11/19/16 12:37	1
Carbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/19/16 12:37	1
Hydroxide Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/19/16 12:37	1
Specific Conductance	**720**		1.0		umhos/cm			11/21/16 12:41	1
Total Dissolved Solids	**460**		10		mg/L			11/22/16 09:22	1
Fluoride	**0.28**		0.10	0.050	mg/L			11/21/16 09:41	1
pH	**7.8**	**HF**	0.1		SU			11/25/16 13:42	1
Methylene Blue Active Substances	ND		0.10	0.050	mg/L			11/18/16 22:45	1

Client Sample ID: TB-1-20161118
Lab Sample ID: 440-166509-5
Date Collected: 11/18/16 10:00
Matrix: Water
Date Received: 11/18/16 15:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			11/23/16 22:23	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			11/23/16 22:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			11/23/16 22:23	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			11/23/16 22:23	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			11/23/16 22:23	1

Client Sample ID: TB-1-20161118
Date Collected: 11/18/16 10:00
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/16 22:23	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Benzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Bromobenzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Bromochloromethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Bromodichloromethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Bromoform	ND		1.0	0.40	ug/L			11/23/16 22:23	1
Bromomethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Chlorobenzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Chloroethane	ND		1.0	0.40	ug/L			11/23/16 22:23	1
Chloroform	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Chloromethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Dibromochloromethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Dibromomethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			11/23/16 22:23	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Isopropylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
m,p-Xylene	ND		1.0	0.50	ug/L			11/23/16 22:23	1
Methylene Chloride	ND		2.0	0.88	ug/L			11/23/16 22:23	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Naphthalene	ND		1.0	0.40	ug/L			11/23/16 22:23	1
n-Butylbenzene	ND		1.0	0.40	ug/L			11/23/16 22:23	1
N-Propylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
o-Xylene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Styrene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			11/23/16 22:23	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			11/23/16 22:23	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Tetrachloroethene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Toluene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Trichloroethene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Vinyl chloride	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Xylenes, Total	ND		1.0	0.50	ug/L			11/23/16 22:23	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1
Ethylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*80 - 120*		*11/23/16 22:23*	*1*

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-166509-1

Client Sample ID: TB-1-20161118

Lab Sample ID: 440-166509-5

Date Collected: 11/18/16 10:00
Matrix: Water
Date Received: 11/18/16 15:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*11/23/16 22:23*	*1*
Toluene-d8 (Surr)	*98*		*80 - 128*		*11/23/16 22:23*	*1*

Client Sample ID: MW-30-20161118

Lab Sample ID: 440-166509-6

Date Collected: 11/18/16 12:46
Matrix: Water
Date Received: 11/18/16 15:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			11/23/16 22:53	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			11/23/16 22:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			11/23/16 22:53	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			11/23/16 22:53	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/16 22:53	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Benzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Bromobenzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Bromochloromethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Bromodichloromethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Bromoform	ND		1.0	0.40	ug/L			11/23/16 22:53	1
Bromomethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Chlorobenzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Chloroethane	ND		1.0	0.40	ug/L			11/23/16 22:53	1
Chloroform	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Chloromethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Dibromochloromethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Dibromomethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			11/23/16 22:53	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			11/23/16 22:53	1

Client Sample ID: MW-30-20161118
Date Collected: 11/18/16 12:46
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Isopropylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
m,p-Xylene	ND		1.0	0.50	ug/L			11/23/16 22:53	1
Methylene Chloride	ND		2.0	0.88	ug/L			11/23/16 22:53	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Naphthalene	ND		1.0	0.40	ug/L			11/23/16 22:53	1
n-Butylbenzene	ND		1.0	0.40	ug/L			11/23/16 22:53	1
N-Propylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
o-Xylene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Styrene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			11/23/16 22:53	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			11/23/16 22:53	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Tetrachloroethene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Toluene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
trans-1,2-Dichloroethene	**0.43**	**J**	0.50	0.25	ug/L			11/23/16 22:53	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Trichloroethene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Vinyl chloride	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Xylenes, Total	ND		1.0	0.50	ug/L			11/23/16 22:53	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1
Ethylbenzene	ND		0.50	0.25	ug/L			11/23/16 22:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*80 - 120*		*11/23/16 22:53*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*11/23/16 22:53*	*1*
Toluene-d8 (Surr)	*97*		*80 - 128*		*11/23/16 22:53*	*1*

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**64**		25	13	mg/L			11/19/16 01:25	50
Nitrate as N	**18**		5.5	2.8	mg/L			11/19/16 01:25	50
Nitrite as N	ND		0.15	0.070	mg/L			11/19/16 01:12	1
Sulfate	**160**		25	13	mg/L			11/19/16 01:25	50
Nitrate as NO3	**81**		25	13	mg/L			11/19/16 01:25	50

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**130**		0.10	0.050	mg/L		11/21/16 10:58	11/22/16 20:31	1
Copper	ND		0.010	0.0050	mg/L		11/21/16 10:58	11/22/16 20:31	1
Iron	**0.044**		0.040	0.010	mg/L		11/21/16 10:58	11/22/16 20:31	1
Potassium	**4.2**		0.50	0.25	mg/L		11/21/16 10:58	11/22/16 20:31	1
Magnesium	**16**		0.020	0.010	mg/L		11/21/16 10:58	11/22/16 20:31	1
Manganese	ND		0.020	0.010	mg/L		11/21/16 10:58	11/22/16 20:31	1
Sodium	**81**		0.50	0.25	mg/L		11/21/16 10:58	11/22/16 20:31	1
Zinc	**0.017**	**J**	0.020	0.010	mg/L		11/21/16 10:58	11/22/16 20:31	1

Client Sample ID: MW-30-20161118

Date Collected: 11/18/16 12:46
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-6

Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/21/16 10:08	11/23/16 00:40	1
Arsenic	ND		0.010	0.0050	mg/L		11/21/16 10:08	11/23/16 00:40	1
Barium	**0.10**		0.010	0.0050	mg/L		11/21/16 10:08	11/23/16 00:40	1
Beryllium	ND		0.0020	0.0010	mg/L		11/21/16 10:08	11/23/16 00:40	1
Cadmium	ND		0.0050	0.0020	mg/L		11/21/16 10:08	11/23/16 00:40	1
Chromium	**0.020**		0.0050	0.0025	mg/L		11/21/16 10:08	11/23/16 00:40	1
Cobalt	ND		0.010	0.0025	mg/L		11/21/16 10:08	11/23/16 00:40	1
Copper	ND		0.010	0.0050	mg/L		11/21/16 10:08	11/23/16 00:40	1
Lead	ND		0.0050	0.0025	mg/L		11/21/16 10:08	11/23/16 00:40	1
Molybdenum	ND		0.020	0.010	mg/L		11/21/16 10:08	11/23/16 00:40	1
Nickel	ND		0.010	0.0050	mg/L		11/21/16 10:08	11/23/16 00:40	1
Selenium	**0.0066**	**J ^**	0.010	0.0061	mg/L		11/21/16 10:08	11/23/16 00:40	1
Thallium	ND		0.010	0.0050	mg/L		11/21/16 10:08	11/23/16 00:40	1
Vanadium	**0.0055**	**J**	0.010	0.0050	mg/L		11/21/16 10:08	11/23/16 00:40	1
Zinc	**0.017**	**J**	0.020	0.010	mg/L		11/21/16 10:08	11/23/16 00:40	1
Silver	ND		0.010	0.0050	mg/L		11/21/16 10:08	11/23/16 00:40	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/22/16 09:14	11/26/16 14:22	1
Selenium	ND		0.010	0.0061	mg/L		11/22/16 09:14	11/26/16 14:22	1
Molybdenum	ND		0.020	0.010	mg/L		11/22/16 09:14	11/26/16 14:22	1
Lead	ND		0.0050	0.0025	mg/L		11/22/16 09:14	11/26/16 14:22	1
Zinc	**0.013**	**J**	0.020	0.010	mg/L		11/22/16 09:14	11/26/16 14:22	1
Vanadium	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 14:22	1
Thallium	**0.0068**	**J B**	0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 14:22	1
Nickel	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 14:22	1
Copper	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 14:22	1
Cobalt	ND		0.010	0.0025	mg/L		11/22/16 09:14	11/28/16 14:04	1
Chromium	**0.019**		0.0050	0.0025	mg/L		11/22/16 09:14	11/26/16 14:22	1
Cadmium	ND		0.0050	0.0020	mg/L		11/22/16 09:14	11/26/16 14:22	1
Beryllium	ND		0.0020	0.0010	mg/L		11/22/16 09:14	11/26/16 14:22	1
Barium	**0.095**		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 14:22	1
Arsenic	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 14:22	1
Silver	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/28/16 14:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		11/21/16 12:43	11/21/16 21:32	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		11/22/16 11:15	11/22/16 19:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**0.030**		0.025	0.0050	mg/L			11/18/16 20:58	1
Total Alkalinity as CaCO3	**240**		4.0	4.0	mg/L			11/21/16 06:02	1
Bicarbonate Alkalinity as CaCO3	**240**		4.0	4.0	mg/L			11/21/16 06:02	1
Carbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/21/16 06:02	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-166509-1

Client Sample ID: MW-30-20161118
Date Collected: 11/18/16 12:46
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-6
Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hydroxide Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/21/16 06:02	1
Specific Conductance	**1000**		1.0		umhos/cm			11/21/16 12:41	1
Total Dissolved Solids	**700**		10		mg/L			11/22/16 09:22	1
Fluoride	**0.18**		0.10	0.050	mg/L			11/21/16 09:42	1
pH	**7.5**	**HF**	0.1		SU			11/25/16 13:42	1
Methylene Blue Active Substances	ND		0.10	0.050	mg/L			11/18/16 22:45	1

Method Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-166509-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
300.0	Anions, Ion Chromatography	MCAWW	TAL IRV
200.7 Rev 4.4	Metals (ICP)	EPA	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
7470A	Mercury (CVAA)	SW846	TAL IRV
7196A	Chromium, Hexavalent	SW846	TAL IRV
SM 2320B	Alkalinity	SM	TAL IRV
SM 2510B	Conductivity, Specific Conductance	SM	TAL IRV
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL IRV
SM 4500 F C	Fluoride	SM	TAL IRV
SM 4500 H+ B	pH	SM	TAL IRV
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	TAL IRV

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client Sample ID: MW-3-20161118

Date Collected: 11/18/16 12:45
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	371501	11/25/16 09:09	AYL	TAL IRV
Total/NA	Analysis	300.0		1			370130	11/18/16 23:06	NN	TAL IRV
Total/NA	Analysis	300.0		50			370129	11/18/16 23:19	NN	TAL IRV
Total/NA	Analysis	300.0		50			370130	11/18/16 23:19	NN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	370634	11/21/16 10:58	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			371213	11/22/16 20:29	VS	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	370911	11/22/16 09:14	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			371801	11/26/16 13:44	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	370911	11/22/16 09:14	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			372054	11/28/16 13:38	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	370994	11/22/16 11:50	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			371800	11/26/16 13:03	K1E	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	370977	11/22/16 11:15	DB	TAL IRV
Dissolved	Analysis	7470A		1			371151	11/22/16 19:07	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	370671	11/21/16 12:43	DB	TAL IRV
Total/NA	Analysis	7470A		1			370823	11/21/16 21:53	DB	TAL IRV
Total/NA	Analysis	7196A		1	10 mL	10 mL	370315	11/18/16 20:58	RW	TAL IRV
Total/NA	Analysis	SM 2320B		1			370444	11/19/16 12:15	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			370603	11/21/16 12:41	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	370916	11/22/16 09:22	XL	TAL IRV
Total/NA	Analysis	SM 4500 F C		1			370611	11/21/16 09:21	MN	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			371602	11/25/16 13:42	RB	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	370331	11/18/16 22:45	EN	TAL IRV

Client Sample ID: MW-4-20161118

Date Collected: 11/18/16 10:20
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	371412	11/23/16 20:25	K1S	TAL IRV
Total/NA	Analysis	300.0		1			370130	11/18/16 23:32	NN	TAL IRV
Total/NA	Analysis	300.0		20			370129	11/18/16 23:44	NN	TAL IRV
Total/NA	Analysis	300.0		20			370130	11/18/16 23:44	NN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	370634	11/21/16 10:58	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			371213	11/22/16 20:27	VS	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	370911	11/22/16 09:14	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			371801	11/26/16 13:54	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	370911	11/22/16 09:14	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			372054	11/28/16 13:49	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	370994	11/22/16 11:50	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			371800	11/26/16 13:17	K1E	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	370977	11/22/16 11:15	DB	TAL IRV

Client Sample ID: MW-4-20161118

Date Collected: 11/18/16 10:20
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	7470A		1			371151	11/22/16 19:10	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	370671	11/21/16 12:43	DB	TAL IRV
Total/NA	Analysis	7470A		1			370823	11/21/16 21:49	DB	TAL IRV
Total/NA	Analysis	7196A		1	10 mL	10 mL	370315	11/18/16 20:58	RW	TAL IRV
Total/NA	Analysis	SM 2320B		1			370444	11/19/16 12:23	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			370603	11/21/16 12:41	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	370916	11/22/16 09:22	XL	TAL IRV
Total/NA	Analysis	SM 4500 F C		1			370611	11/21/16 09:39	MN	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			371602	11/25/16 13:42	RB	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	370331	11/18/16 22:45	EN	TAL IRV

Client Sample ID: SW-1-20161118

Date Collected: 11/18/16 12:10
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			25 mL	25 mL	370911	11/22/16 09:14	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			371801	11/26/16 13:57	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	370911	11/22/16 09:14	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			372054	11/28/16 13:51	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	370994	11/22/16 11:50	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			371800	11/26/16 13:14	K1E	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	370977	11/22/16 11:15	DB	TAL IRV
Dissolved	Analysis	7470A		1			371151	11/22/16 19:14	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	370671	11/21/16 12:43	DB	TAL IRV
Total/NA	Analysis	7470A		1			370823	11/21/16 21:46	DB	TAL IRV
Total/NA	Analysis	7196A		1	10 mL	10 mL	370315	11/18/16 20:58	RW	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	370916	11/22/16 09:22	XL	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			371602	11/25/16 13:42	RB	TAL IRV

Client Sample ID: SW-2-20161118

Date Collected: 11/18/16 13:40
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			370130	11/19/16 00:47	NN	TAL IRV
Total/NA	Analysis	300.0		10			370129	11/19/16 01:00	NN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	370992	11/22/16 11:49	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			372359	11/29/16 14:57	K1E	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	370992	11/22/16 11:49	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			371810	11/26/16 15:35	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	370911	11/22/16 09:14	Q1N	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-166509-1

Client Sample ID: SW-2-20161118

Lab Sample ID: 440-166509-4

Date Collected: 11/18/16 13:40
Matrix: Water
Date Received: 11/18/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	6010B		1			371801	11/26/16 14:00	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	370911	11/22/16 09:14	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			372054	11/28/16 13:54	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	370994	11/22/16 11:50	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			371800	11/26/16 13:19	K1E	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	370977	11/22/16 11:15	DB	TAL IRV
Dissolved	Analysis	7470A		1			371151	11/22/16 19:17	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	370671	11/21/16 12:43	DB	TAL IRV
Total/NA	Analysis	7470A		1			370823	11/21/16 21:43	DB	TAL IRV
Total/NA	Analysis	7196A		1	10 mL	10 mL	370315	11/18/16 20:58	RW	TAL IRV
Total/NA	Analysis	SM 2320B		1			370444	11/19/16 12:37	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			370603	11/21/16 12:41	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	370916	11/22/16 09:22	XL	TAL IRV
Total/NA	Analysis	SM 4500 F C		1			370611	11/21/16 09:41	MN	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			371602	11/25/16 13:42	RB	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	370331	11/18/16 22:45	EN	TAL IRV

Client Sample ID: TB-1-20161118

Lab Sample ID: 440-166509-5

Date Collected: 11/18/16 10:00
Matrix: Water
Date Received: 11/18/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	371412	11/23/16 22:23	K1S	TAL IRV

Client Sample ID: MW-30-20161118

Lab Sample ID: 440-166509-6

Date Collected: 11/18/16 12:46
Matrix: Water
Date Received: 11/18/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	371412	11/23/16 22:53	K1S	TAL IRV
Total/NA	Analysis	300.0		1			370130	11/19/16 01:12	NN	TAL IRV
Total/NA	Analysis	300.0		50			370129	11/19/16 01:25	NN	TAL IRV
Total/NA	Analysis	300.0		50			370130	11/19/16 01:25	NN	TAL IRV
Total Recoverable	Prep	200.2			25 mL	25 mL	370634	11/21/16 10:58	Q1N	TAL IRV
Total Recoverable	Analysis	200.7 Rev 4.4		1			371213	11/22/16 20:31	VS	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	370911	11/22/16 09:14	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			371801	11/26/16 14:22	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	370911	11/22/16 09:14	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			372054	11/28/16 14:04	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	370616	11/21/16 10:08	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			371216	11/23/16 00:40	VS	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	370977	11/22/16 11:15	DB	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-166509-1

Client Sample ID: MW-30-20161118
Date Collected: 11/18/16 12:46
Date Received: 11/18/16 15:30

Lab Sample ID: 440-166509-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Analysis	7470A		1			371151	11/22/16 19:21	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	370671	11/21/16 12:43	DB	TAL IRV
Total/NA	Analysis	7470A		1			370823	11/21/16 21:32	DB	TAL IRV
Total/NA	Analysis	7196A		1	10 mL	10 mL	370315	11/18/16 20:58	RW	TAL IRV
Total/NA	Analysis	SM 2320B		1			370551	11/21/16 06:02	YZ	TAL IRV
Total/NA	Analysis	SM 2510B		1			370603	11/21/16 12:41	XL	TAL IRV
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	370916	11/22/16 09:22	XL	TAL IRV
Total/NA	Analysis	SM 4500 F C		1			370611	11/21/16 09:42	MN	TAL IRV
Total/NA	Analysis	SM 4500 H+ B		1			371602	11/25/16 13:42	RB	TAL IRV
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	370331	11/18/16 22:45	EN	TAL IRV

Laboratory References:
TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-166509-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-371412/4
Matrix: Water
Analysis Batch: 371412

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			11/23/16 19:26	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			11/23/16 19:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			11/23/16 19:26	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			11/23/16 19:26	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/23/16 19:26	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Benzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Bromobenzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Bromochloromethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Bromodichloromethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Bromoform	ND		1.0	0.40	ug/L			11/23/16 19:26	1
Bromomethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Chlorobenzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Chloroethane	ND		1.0	0.40	ug/L			11/23/16 19:26	1
Chloroform	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Chloromethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Dibromochloromethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Dibromomethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			11/23/16 19:26	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Isopropylbenzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
m,p-Xylene	ND		1.0	0.50	ug/L			11/23/16 19:26	1
Methylene Chloride	ND		2.0	0.88	ug/L			11/23/16 19:26	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Naphthalene	ND		1.0	0.40	ug/L			11/23/16 19:26	1
n-Butylbenzene	ND		1.0	0.40	ug/L			11/23/16 19:26	1
N-Propylbenzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-371412/4
Matrix: Water
Analysis Batch: 371412

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Styrene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			11/23/16 19:26	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			11/23/16 19:26	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Tetrachloroethene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Toluene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Trichloroethene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Vinyl chloride	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Xylenes, Total	ND		1.0	0.50	ug/L			11/23/16 19:26	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1
Ethylbenzene	ND		0.50	0.25	ug/L			11/23/16 19:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*80 - 120*		*11/23/16 19:26*	*1*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*11/23/16 19:26*	*1*
Toluene-d8 (Surr)	*97*		*80 - 128*		*11/23/16 19:26*	*1*

Lab Sample ID: LCS 440-371412/5
Matrix: Water
Analysis Batch: 371412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	25.7		ug/L		103	60 - 141
1,1,1-Trichloroethane	25.0	28.2		ug/L		113	70 - 130
1,1,2,2-Tetrachloroethane	25.0	20.8		ug/L		83	63 - 130
1,1,2-Trichloroethane	25.0	20.9		ug/L		84	70 - 130
1,1-Dichloroethane	25.0	22.2		ug/L		89	64 - 130
1,1-Dichloroethene	25.0	23.8		ug/L		95	70 - 130
1,1-Dichloropropene	25.0	23.3		ug/L		93	70 - 130
1,2,3-Trichlorobenzene	25.0	23.5		ug/L		94	60 - 140
1,2,3-Trichloropropane	25.0	23.5		ug/L		94	63 - 130
1,2,4-Trichlorobenzene	25.0	24.6		ug/L		98	60 - 140
1,2,4-Trimethylbenzene	25.0	25.0		ug/L		100	70 - 135
1,2-Dibromo-3-Chloropropane	25.0	23.6		ug/L		94	52 - 140
1,2-Dibromoethane (EDB)	25.0	24.7		ug/L		99	70 - 130
1,2-Dichlorobenzene	25.0	23.8		ug/L		95	70 - 130
1,2-Dichloroethane	25.0	27.5		ug/L		110	57 - 138
1,2-Dichloropropane	25.0	22.2		ug/L		89	67 - 130
1,3-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130
1,3-Dichloropropane	25.0	20.8		ug/L		83	70 - 130
1,4-Dichlorobenzene	25.0	24.1		ug/L		97	70 - 130
2,2-Dichloropropane	25.0	25.5		ug/L		102	68 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-371412/5
Matrix: Water
Analysis Batch: 371412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	25.0	21.7		ug/L		87	70 - 130
4-Chlorotoluene	25.0	22.3		ug/L		89	70 - 130
Benzene	25.0	22.4		ug/L		90	68 - 130
Bromobenzene	25.0	22.9		ug/L		92	70 - 130
Bromochloromethane	25.0	26.4		ug/L		106	70 - 130
Bromodichloromethane	25.0	26.9		ug/L		108	70 - 132
Bromoform	25.0	27.8		ug/L		111	60 - 148
Bromomethane	25.0	25.1		ug/L		100	64 - 139
Carbon tetrachloride	25.0	31.4		ug/L		125	60 - 150
Chlorobenzene	25.0	22.5		ug/L		90	70 - 130
Chloroethane	25.0	23.1		ug/L		92	64 - 135
Chloroform	25.0	25.7		ug/L		103	70 - 130
Chloromethane	25.0	20.9		ug/L		84	47 - 140
cis-1,2-Dichloroethene	25.0	25.0		ug/L		100	70 - 133
cis-1,3-Dichloropropene	25.0	22.0		ug/L		88	70 - 133
Dibromochloromethane	25.0	26.9		ug/L		107	69 - 145
Dibromomethane	25.0	25.7		ug/L		103	70 - 130
Dichlorodifluoromethane	25.0	25.7		ug/L		103	29 - 150
Isopropyl Ether (DIPE)	25.0	22.2		ug/L		89	58 - 139
Ethyl-t-butyl ether (ETBE)	25.0	23.8		ug/L		95	60 - 136
Hexachlorobutadiene	25.0	23.9		ug/L		95	10 - 150
Isopropylbenzene	25.0	26.4		ug/L		106	70 - 136
m,p-Xylene	25.0	24.5		ug/L		98	70 - 130
Methylene Chloride	25.0	23.0		ug/L		92	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	23.8		ug/L		95	63 - 131
Naphthalene	25.0	25.2		ug/L		101	60 - 140
n-Butylbenzene	25.0	24.6		ug/L		98	65 - 150
N-Propylbenzene	25.0	22.2		ug/L		89	67 - 139
o-Xylene	25.0	24.7		ug/L		99	70 - 130
p-Isopropyltoluene	25.0	25.8		ug/L		103	70 - 132
sec-Butylbenzene	25.0	24.7		ug/L		99	70 - 138
Styrene	25.0	23.7		ug/L		95	70 - 134
Tert-amyl-methyl ether (TAME)	25.0	23.2		ug/L		93	57 - 139
tert-Butyl alcohol (TBA)	250	257		ug/L		103	70 - 130
tert-Butylbenzene	25.0	24.5		ug/L		98	70 - 130
Tetrachloroethene	25.0	23.6		ug/L		94	70 - 130
Toluene	25.0	21.8		ug/L		87	70 - 130
trans-1,2-Dichloroethene	25.0	24.6		ug/L		99	70 - 130
trans-1,3-Dichloropropene	25.0	22.7		ug/L		91	70 - 132
Trichloroethene	25.0	28.6		ug/L		114	70 - 130
Trichlorofluoromethane	25.0	30.0		ug/L		120	60 - 150
Vinyl chloride	25.0	23.7		ug/L		95	59 - 133
1,3,5-Trimethylbenzene	25.0	24.8		ug/L		99	70 - 136
Ethylbenzene	25.0	22.2		ug/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*76 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-371412/5
Matrix: Water
Analysis Batch: 371412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	91		80 - 128

Lab Sample ID: 440-166509-2 MS
Matrix: Water
Analysis Batch: 371412

Client Sample ID: MW-4-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	27.5		ug/L		110	60 - 149
1,1,1-Trichloroethane	ND		25.0	29.1		ug/L		117	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	20.9		ug/L		84	63 - 130
1,1,2-Trichloroethane	ND		25.0	22.3		ug/L		89	70 - 130
1,1-Dichloroethane	ND		25.0	23.1		ug/L		92	65 - 130
1,1-Dichloroethene	ND		25.0	24.7		ug/L		99	70 - 130
1,1-Dichloropropene	ND		25.0	24.1		ug/L		97	64 - 130
1,2,3-Trichlorobenzene	ND		25.0	23.7		ug/L		95	60 - 140
1,2,3-Trichloropropane	ND		25.0	23.4		ug/L		94	60 - 130
1,2,4-Trichlorobenzene	ND		25.0	25.4		ug/L		102	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	25.8		ug/L		103	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	22.9		ug/L		92	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	26.2		ug/L		105	70 - 131
1,2-Dichlorobenzene	ND		25.0	24.3		ug/L		97	70 - 130
1,2-Dichloroethane	ND		25.0	27.5		ug/L		110	56 - 146
1,2-Dichloropropane	ND		25.0	22.7		ug/L		91	69 - 130
1,3-Dichlorobenzene	ND		25.0	24.7		ug/L		99	70 - 130
1,3-Dichloropropane	ND		25.0	22.3		ug/L		89	70 - 130
1,4-Dichlorobenzene	ND		25.0	24.7		ug/L		99	70 - 130
2,2-Dichloropropane	ND		25.0	27.2		ug/L		109	69 - 138
2-Chlorotoluene	ND		25.0	22.3		ug/L		89	70 - 130
4-Chlorotoluene	ND		25.0	23.3		ug/L		93	70 - 130
Benzene	ND		25.0	23.2		ug/L		93	66 - 130
Bromobenzene	ND		25.0	23.3		ug/L		93	70 - 130
Bromochloromethane	ND		25.0	26.3		ug/L		105	70 - 130
Bromodichloromethane	ND		25.0	27.2		ug/L		109	70 - 138
Bromoform	ND		25.0	30.2		ug/L		121	59 - 150
Bromomethane	ND		25.0	25.1		ug/L		101	62 - 131
Carbon tetrachloride	ND		25.0	32.3		ug/L		129	60 - 150
Chlorobenzene	ND		25.0	24.5		ug/L		98	70 - 130
Chloroethane	ND		25.0	24.0		ug/L		96	68 - 130
Chloroform	ND		25.0	26.2		ug/L		105	70 - 130
Chloromethane	ND		25.0	22.4		ug/L		90	39 - 144
cis-1,2-Dichloroethene	ND		25.0	25.0		ug/L		100	70 - 130
cis-1,3-Dichloropropene	ND		25.0	23.9		ug/L		95	70 - 133
Dibromochloromethane	ND		25.0	28.7		ug/L		115	70 - 148
Dibromomethane	ND		25.0	25.3		ug/L		101	70 - 130
Dichlorodifluoromethane	ND		25.0	27.5		ug/L		110	25 - 142
Isopropyl Ether (DIPE)	ND		25.0	22.7		ug/L		91	64 - 138
Ethyl-t-butyl ether (ETBE)	ND		25.0	23.7		ug/L		95	70 - 130
Hexachlorobutadiene	ND		25.0	24.2		ug/L		97	10 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-166509-2 MS
Matrix: Water
Analysis Batch: 371412

Client Sample ID: MW-4-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	ND		25.0	29.1		ug/L		116	70 - 132
m,p-Xylene	ND		25.0	26.9		ug/L		108	70 - 133
Methylene Chloride	ND		25.0	23.6		ug/L		95	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	23.7		ug/L		95	70 - 130
Naphthalene	ND		25.0	25.3		ug/L		101	60 - 140
n-Butylbenzene	ND		25.0	25.9		ug/L		104	61 - 149
N-Propylbenzene	ND		25.0	23.1		ug/L		93	66 - 135
o-Xylene	ND		25.0	26.8		ug/L		107	70 - 133
p-Isopropyltoluene	ND		25.0	26.7		ug/L		107	70 - 130
sec-Butylbenzene	ND		25.0	25.3		ug/L		101	67 - 134
Styrene	ND		25.0	25.9		ug/L		104	29 - 150
Tert-amyl-methyl ether (TAME)	ND		25.0	23.1		ug/L		92	68 - 133
tert-Butyl alcohol (TBA)	ND		250	266		ug/L		107	70 - 130
tert-Butylbenzene	ND		25.0	25.2		ug/L		101	70 - 130
Tetrachloroethene	ND		25.0	26.0		ug/L		104	70 - 137
Toluene	ND		25.0	23.8		ug/L		95	70 - 130
trans-1,2-Dichloroethene	0.66		25.0	26.1		ug/L		102	70 - 130
trans-1,3-Dichloropropene	ND		25.0	24.7		ug/L		99	70 - 138
Trichloroethene	ND		25.0	28.4		ug/L		114	70 - 130
Trichlorofluoromethane	ND		25.0	31.1		ug/L		125	60 - 150
Vinyl chloride	ND		25.0	25.8		ug/L		103	50 - 137
1,3,5-Trimethylbenzene	ND		25.0	25.4		ug/L		102	70 - 130
Ethylbenzene	ND		25.0	24.0		ug/L		96	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*83*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*76 - 132*
Toluene-d8 (Surr)	*96*		*80 - 128*

Lab Sample ID: 440-166509-2 MSD
Matrix: Water
Analysis Batch: 371412

Client Sample ID: MW-4-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	26.5		ug/L		106	60 - 149	4	20
1,1,1-Trichloroethane	ND		25.0	29.4		ug/L		118	70 - 130	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	21.0		ug/L		84	63 - 130	0	30
1,1,2-Trichloroethane	ND		25.0	21.3		ug/L		85	70 - 130	4	25
1,1-Dichloroethane	ND		25.0	22.8		ug/L		91	65 - 130	1	20
1,1-Dichloroethene	ND		25.0	25.4		ug/L		102	70 - 130	3	20
1,1-Dichloropropene	ND		25.0	24.7		ug/L		99	64 - 130	2	20
1,2,3-Trichlorobenzene	ND		25.0	24.0		ug/L		96	60 - 140	1	20
1,2,3-Trichloropropane	ND		25.0	24.0		ug/L		96	60 - 130	2	30
1,2,4-Trichlorobenzene	ND		25.0	24.9		ug/L		100	60 - 140	2	20
1,2,4-Trimethylbenzene	ND		25.0	25.6		ug/L		102	70 - 130	1	25
1,2-Dibromo-3-Chloropropane	ND		25.0	23.6		ug/L		94	48 - 140	3	30
1,2-Dibromoethane (EDB)	ND		25.0	25.3		ug/L		101	70 - 131	3	25
1,2-Dichlorobenzene	ND		25.0	24.1		ug/L		97	70 - 130	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-166509-2 MSD
Matrix: Water
Analysis Batch: 371412

Client Sample ID: MW-4-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	ND		25.0	27.2		ug/L		109	56 - 146	1	20
1,2-Dichloropropane	ND		25.0	22.7		ug/L		91	69 - 130	0	20
1,3-Dichlorobenzene	ND		25.0	24.6		ug/L		98	70 - 130	1	20
1,3-Dichloropropane	ND		25.0	20.6		ug/L		82	70 - 130	8	25
1,4-Dichlorobenzene	ND		25.0	24.7		ug/L		99	70 - 130	0	20
2,2-Dichloropropane	ND		25.0	27.2		ug/L		109	69 - 138	0	25
2-Chlorotoluene	ND		25.0	22.3		ug/L		89	70 - 130	0	20
4-Chlorotoluene	ND		25.0	22.7		ug/L		91	70 - 130	3	20
Benzene	ND		25.0	23.0		ug/L		92	66 - 130	1	20
Bromobenzene	ND		25.0	23.0		ug/L		92	70 - 130	1	20
Bromochloromethane	ND		25.0	25.8		ug/L		103	70 - 130	2	25
Bromodichloromethane	ND		25.0	26.9		ug/L		107	70 - 138	1	20
Bromoform	ND		25.0	28.7		ug/L		115	59 - 150	5	25
Bromomethane	ND		25.0	26.4		ug/L		106	62 - 131	5	25
Carbon tetrachloride	ND		25.0	32.4		ug/L		130	60 - 150	1	25
Chlorobenzene	ND		25.0	23.2		ug/L		93	70 - 130	5	20
Chloroethane	ND		25.0	25.1		ug/L		100	68 - 130	4	25
Chloroform	ND		25.0	25.9		ug/L		104	70 - 130	1	20
Chloromethane	ND		25.0	23.7		ug/L		95	39 - 144	6	25
cis-1,2-Dichloroethene	ND		25.0	25.5		ug/L		102	70 - 130	2	20
cis-1,3-Dichloropropene	ND		25.0	22.7		ug/L		91	70 - 133	5	20
Dibromochloromethane	ND		25.0	27.2		ug/L		109	70 - 148	5	25
Dibromomethane	ND		25.0	25.6		ug/L		103	70 - 130	2	25
Dichlorodifluoromethane	ND		25.0	29.0		ug/L		116	25 - 142	5	30
Isopropyl Ether (DIPE)	ND		25.0	22.7		ug/L		91	64 - 138	0	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	24.1		ug/L		96	70 - 130	2	25
Hexachlorobutadiene	ND		25.0	24.6		ug/L		98	10 - 150	1	20
Isopropylbenzene	ND		25.0	27.7		ug/L		111	70 - 132	5	20
m,p-Xylene	ND		25.0	25.6		ug/L		102	70 - 133	5	25
Methylene Chloride	ND		25.0	23.3		ug/L		93	52 - 130	1	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	23.8		ug/L		95	70 - 130	0	25
Naphthalene	ND		25.0	25.6		ug/L		103	60 - 140	1	30
n-Butylbenzene	ND		25.0	25.9		ug/L		104	61 - 149	0	20
N-Propylbenzene	ND		25.0	23.1		ug/L		93	66 - 135	0	20
o-Xylene	ND		25.0	25.7		ug/L		103	70 - 133	4	20
p-Isopropyltoluene	ND		25.0	26.8		ug/L		107	70 - 130	0	20
sec-Butylbenzene	ND		25.0	25.6		ug/L		102	67 - 134	1	20
Styrene	ND		25.0	24.4		ug/L		98	29 - 150	6	35
Tert-amyl-methyl ether (TAME)	ND		25.0	23.3		ug/L		93	68 - 133	1	30
tert-Butyl alcohol (TBA)	ND		250	268		ug/L		107	70 - 130	1	25
tert-Butylbenzene	ND		25.0	25.5		ug/L		102	70 - 130	1	20
Tetrachloroethene	ND		25.0	25.2		ug/L		101	70 - 137	3	20
Toluene	ND		25.0	22.5		ug/L		90	70 - 130	6	20
trans-1,2-Dichloroethene	0.66		25.0	26.2		ug/L		102	70 - 130	0	20
trans-1,3-Dichloropropene	ND		25.0	23.7		ug/L		95	70 - 138	4	25
Trichloroethene	ND		25.0	28.8		ug/L		115	70 - 130	1	20
Trichlorofluoromethane	ND		25.0	31.3		ug/L		125	60 - 150	1	25
Vinyl chloride	ND		25.0	26.4		ug/L		106	50 - 137	2	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-166509-2 MSD
Matrix: Water
Analysis Batch: 371412

Client Sample ID: MW-4-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	ND		25.0	25.5		ug/L		102	70 - 130	1	20
Ethylbenzene	ND		25.0	23.1		ug/L		92	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*76 - 132*
Toluene-d8 (Surr)	*92*		*80 - 128*

Lab Sample ID: MB 440-371501/4
Matrix: Water
Analysis Batch: 371501

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			11/25/16 08:10	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			11/25/16 08:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			11/25/16 08:10	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			11/25/16 08:10	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			11/25/16 08:10	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Benzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Bromobenzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Bromochloromethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Bromodichloromethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Bromoform	ND		1.0	0.40	ug/L			11/25/16 08:10	1
Bromomethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Chlorobenzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Chloroethane	ND		1.0	0.40	ug/L			11/25/16 08:10	1
Chloroform	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Chloromethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			11/25/16 08:10	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-371501/4
Matrix: Water
Analysis Batch: 371501

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Dibromomethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			11/25/16 08:10	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Isopropylbenzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
m,p-Xylene	ND		1.0	0.50	ug/L			11/25/16 08:10	1
Methylene Chloride	ND		2.0	0.88	ug/L			11/25/16 08:10	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Naphthalene	ND		1.0	0.40	ug/L			11/25/16 08:10	1
n-Butylbenzene	ND		1.0	0.40	ug/L			11/25/16 08:10	1
N-Propylbenzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
o-Xylene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Styrene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			11/25/16 08:10	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			11/25/16 08:10	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Tetrachloroethene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Toluene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Trichloroethene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Vinyl chloride	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Xylenes, Total	ND		1.0	0.50	ug/L			11/25/16 08:10	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1
Ethylbenzene	ND		0.50	0.25	ug/L			11/25/16 08:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*80 - 120*		*11/25/16 08:10*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*11/25/16 08:10*	*1*
Toluene-d8 (Surr)	*98*		*80 - 128*		*11/25/16 08:10*	*1*

Lab Sample ID: LCS 440-371501/5
Matrix: Water
Analysis Batch: 371501

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	26.5		ug/L		106	60 - 141
1,1,1-Trichloroethane	25.0	28.9		ug/L		115	70 - 130
1,1,2,2-Tetrachloroethane	25.0	22.7		ug/L		91	63 - 130
1,1,2-Trichloroethane	25.0	22.2		ug/L		89	70 - 130
1,1-Dichloroethane	25.0	22.5		ug/L		90	64 - 130
1,1-Dichloroethene	25.0	24.4		ug/L		98	70 - 130
1,1-Dichloropropene	25.0	23.9		ug/L		96	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-371501/5
Matrix: Water
Analysis Batch: 371501

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichlorobenzene	25.0	24.5		ug/L		98	60 - 140
1,2,3-Trichloropropane	25.0	26.3		ug/L		105	63 - 130
1,2,4-Trichlorobenzene	25.0	25.4		ug/L		102	60 - 140
1,2,4-Trimethylbenzene	25.0	25.8		ug/L		103	70 - 135
1,2-Dibromo-3-Chloropropane	25.0	26.7		ug/L		107	52 - 140
1,2-Dibromoethane (EDB)	25.0	25.9		ug/L		103	70 - 130
1,2-Dichlorobenzene	25.0	24.2		ug/L		97	70 - 130
1,2-Dichloroethane	25.0	27.7		ug/L		111	57 - 138
1,2-Dichloropropane	25.0	22.3		ug/L		89	67 - 130
1,3-Dichlorobenzene	25.0	25.1		ug/L		101	70 - 130
1,3-Dichloropropane	25.0	21.7		ug/L		87	70 - 130
1,4-Dichlorobenzene	25.0	24.6		ug/L		99	70 - 130
2,2-Dichloropropane	25.0	26.9		ug/L		108	68 - 141
2-Chlorotoluene	25.0	22.6		ug/L		90	70 - 130
4-Chlorotoluene	25.0	23.3		ug/L		93	70 - 130
Benzene	25.0	22.6		ug/L		91	68 - 130
Bromobenzene	25.0	23.8		ug/L		95	70 - 130
Bromochloromethane	25.0	25.5		ug/L		102	70 - 130
Bromodichloromethane	25.0	26.9		ug/L		108	70 - 132
Bromoform	25.0	30.2		ug/L		121	60 - 148
Bromomethane	25.0	25.0		ug/L		100	64 - 139
Carbon tetrachloride	25.0	32.3		ug/L		129	60 - 150
Chlorobenzene	25.0	23.5		ug/L		94	70 - 130
Chloroethane	25.0	24.2		ug/L		97	64 - 135
Chloroform	25.0	25.8		ug/L		103	70 - 130
Chloromethane	25.0	21.4		ug/L		86	47 - 140
cis-1,2-Dichloroethene	25.0	25.1		ug/L		100	70 - 133
cis-1,3-Dichloropropene	25.0	22.7		ug/L		91	70 - 133
Dibromochloromethane	25.0	27.9		ug/L		112	69 - 145
Dibromomethane	25.0	25.5		ug/L		102	70 - 130
Dichlorodifluoromethane	25.0	26.6		ug/L		106	29 - 150
Isopropyl Ether (DIPE)	25.0	22.1		ug/L		89	58 - 139
Ethyl-t-butyl ether (ETBE)	25.0	23.6		ug/L		94	60 - 136
Hexachlorobutadiene	25.0	24.6		ug/L		99	10 - 150
Isopropylbenzene	25.0	28.1		ug/L		112	70 - 136
m,p-Xylene	25.0	25.9		ug/L		104	70 - 130
Methylene Chloride	25.0	23.0		ug/L		92	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	23.8		ug/L		95	63 - 131
Naphthalene	25.0	27.2		ug/L		109	60 - 140
n-Butylbenzene	25.0	26.0		ug/L		104	65 - 150
N-Propylbenzene	25.0	23.3		ug/L		93	67 - 139
o-Xylene	25.0	25.6		ug/L		102	70 - 130
p-Isopropyltoluene	25.0	26.9		ug/L		108	70 - 132
sec-Butylbenzene	25.0	25.7		ug/L		103	70 - 138
Styrene	25.0	24.6		ug/L		98	70 - 134
Tert-amyl-methyl ether (TAME)	25.0	23.0		ug/L		92	57 - 139
tert-Butyl alcohol (TBA)	250	266		ug/L		107	70 - 130
tert-Butylbenzene	25.0	25.4		ug/L		102	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-371501/5
Matrix: Water
Analysis Batch: 371501

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tetrachloroethene	25.0	24.7		ug/L		99	70 - 130
Toluene	25.0	22.4		ug/L		90	70 - 130
trans-1,2-Dichloroethene	25.0	25.3		ug/L		101	70 - 130
trans-1,3-Dichloropropene	25.0	23.1		ug/L		92	70 - 132
Trichloroethene	25.0	28.6		ug/L		115	70 - 130
Trichlorofluoromethane	25.0	31.5		ug/L		126	60 - 150
Vinyl chloride	25.0	24.5		ug/L		98	59 - 133
1,3,5-Trimethylbenzene	25.0	25.6		ug/L		102	70 - 136
Ethylbenzene	25.0	23.2		ug/L		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*84*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*76 - 132*
Toluene-d8 (Surr)	*91*		*80 - 128*

Lab Sample ID: 440-166509-1 MS
Matrix: Water
Analysis Batch: 371501

Client Sample ID: MW-3-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	28.0		ug/L		112	60 - 149
1,1,1-Trichloroethane	ND		25.0	29.0		ug/L		116	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	22.5		ug/L		90	63 - 130
1,1,2-Trichloroethane	ND		25.0	23.1		ug/L		93	70 - 130
1,1-Dichloroethane	ND		25.0	23.1		ug/L		92	65 - 130
1,1-Dichloroethene	ND		25.0	24.3		ug/L		97	70 - 130
1,1-Dichloropropene	ND		25.0	24.2		ug/L		97	64 - 130
1,2,3-Trichlorobenzene	ND		25.0	25.6		ug/L		102	60 - 140
1,2,3-Trichloropropane	ND		25.0	25.7		ug/L		103	60 - 130
1,2,4-Trichlorobenzene	ND		25.0	26.6		ug/L		106	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	26.0		ug/L		104	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	25.1		ug/L		100	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	27.4		ug/L		109	70 - 131
1,2-Dichlorobenzene	ND		25.0	25.1		ug/L		101	70 - 130
1,2-Dichloroethane	ND		25.0	28.9		ug/L		116	56 - 146
1,2-Dichloropropane	ND		25.0	23.7		ug/L		95	69 - 130
1,3-Dichlorobenzene	ND		25.0	25.5		ug/L		102	70 - 130
1,3-Dichloropropane	ND		25.0	22.2		ug/L		89	70 - 130
1,4-Dichlorobenzene	ND		25.0	25.5		ug/L		102	70 - 130
2,2-Dichloropropane	ND		25.0	27.1		ug/L		109	69 - 138
2-Chlorotoluene	ND		25.0	22.4		ug/L		90	70 - 130
4-Chlorotoluene	ND		25.0	23.3		ug/L		93	70 - 130
Benzene	ND		25.0	23.3		ug/L		93	66 - 130
Bromobenzene	ND		25.0	23.9		ug/L		96	70 - 130
Bromochloromethane	ND		25.0	28.1		ug/L		113	70 - 130
Bromodichloromethane	ND		25.0	27.7		ug/L		111	70 - 138
Bromoform	ND		25.0	31.0		ug/L		124	59 - 150
Bromomethane	ND		25.0	25.8		ug/L		103	62 - 131

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-166509-1 MS
Matrix: Water
Analysis Batch: 371501

Client Sample ID: MW-3-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	ND		25.0	31.9		ug/L		127	60 - 150
Chlorobenzene	ND		25.0	24.1		ug/L		96	70 - 130
Chloroethane	ND		25.0	23.6		ug/L		94	68 - 130
Chloroform	ND		25.0	27.0		ug/L		108	70 - 130
Chloromethane	ND		25.0	21.8		ug/L		87	39 - 144
cis-1,2-Dichloroethene	ND		25.0	25.9		ug/L		104	70 - 130
cis-1,3-Dichloropropene	ND		25.0	23.4		ug/L		94	70 - 133
Dibromochloromethane	ND		25.0	29.3		ug/L		117	70 - 148
Dibromomethane	ND		25.0	27.1		ug/L		108	70 - 130
Dichlorodifluoromethane	ND		25.0	25.7		ug/L		103	25 - 142
Isopropyl Ether (DIPE)	ND		25.0	24.0		ug/L		96	64 - 138
Ethyl-t-butyl ether (ETBE)	ND		25.0	25.9		ug/L		103	70 - 130
Hexachlorobutadiene	ND		25.0	24.5		ug/L		98	10 - 150
Isopropylbenzene	ND		25.0	28.1		ug/L		113	70 - 132
m,p-Xylene	ND		25.0	26.1		ug/L		104	70 - 133
Methylene Chloride	ND		25.0	20.9		ug/L		84	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	25.7		ug/L		103	70 - 130
Naphthalene	ND		25.0	26.9		ug/L		107	60 - 140
n-Butylbenzene	ND		25.0	25.5		ug/L		102	61 - 149
N-Propylbenzene	ND		25.0	22.8		ug/L		91	66 - 135
o-Xylene	ND		25.0	25.9		ug/L		103	70 - 133
p-Isopropyltoluene	ND		25.0	26.4		ug/L		106	70 - 130
sec-Butylbenzene	ND		25.0	25.1		ug/L		100	67 - 134
Styrene	ND		25.0	25.6		ug/L		102	29 - 150
Tert-amyl-methyl ether (TAME)	ND		25.0	24.9		ug/L		99	68 - 133
tert-Butyl alcohol (TBA)	ND		250	278		ug/L		111	70 - 130
tert-Butylbenzene	ND		25.0	25.0		ug/L		100	70 - 130
Tetrachloroethene	ND		25.0	24.3		ug/L		97	70 - 137
Toluene	ND		25.0	22.7		ug/L		91	70 - 130
trans-1,2-Dichloroethene	0.32	J	25.0	25.6		ug/L		101	70 - 130
trans-1,3-Dichloropropene	ND		25.0	25.0		ug/L		100	70 - 138
Trichloroethene	ND		25.0	28.8		ug/L		115	70 - 130
Trichlorofluoromethane	ND		25.0	30.9		ug/L		124	60 - 150
Vinyl chloride	ND		25.0	25.2		ug/L		101	50 - 137
1,3,5-Trimethylbenzene	ND		25.0	25.8		ug/L		103	70 - 130
Ethylbenzene	ND		25.0	23.2		ug/L		93	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*76 - 132*
Toluene-d8 (Surr)	*92*		*80 - 128*

Lab Sample ID: 440-166509-1 MSD
Matrix: Water
Analysis Batch: 371501

Client Sample ID: MW-3-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	28.5		ug/L		114	60 - 149	2	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-166509-1 MSD
Matrix: Water
Analysis Batch: 371501

Client Sample ID: MW-3-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	28.9		ug/L		116	70 - 130	0	20
1,1,2,2-Tetrachloroethane	ND		25.0	21.8		ug/L		87	63 - 130	3	30
1,1,2-Trichloroethane	ND		25.0	22.6		ug/L		90	70 - 130	2	25
1,1-Dichloroethane	ND		25.0	22.9		ug/L		91	65 - 130	1	20
1,1-Dichloroethene	ND		25.0	24.8		ug/L		99	70 - 130	2	20
1,1-Dichloropropene	ND		25.0	24.1		ug/L		96	64 - 130	0	20
1,2,3-Trichlorobenzene	ND		25.0	24.9		ug/L		100	60 - 140	3	20
1,2,3-Trichloropropane	ND		25.0	24.4		ug/L		98	60 - 130	5	30
1,2,4-Trichlorobenzene	ND		25.0	25.9		ug/L		104	60 - 140	2	20
1,2,4-Trimethylbenzene	ND		25.0	25.5		ug/L		102	70 - 130	2	25
1,2-Dibromo-3-Chloropropane	ND		25.0	24.2		ug/L		97	48 - 140	4	30
1,2-Dibromoethane (EDB)	ND		25.0	27.2		ug/L		109	70 - 131	0	25
1,2-Dichlorobenzene	ND		25.0	24.5		ug/L		98	70 - 130	2	20
1,2-Dichloroethane	ND		25.0	28.8		ug/L		115	56 - 146	0	20
1,2-Dichloropropane	ND		25.0	23.2		ug/L		93	69 - 130	2	20
1,3-Dichlorobenzene	ND		25.0	24.8		ug/L		99	70 - 130	3	20
1,3-Dichloropropane	ND		25.0	22.0		ug/L		88	70 - 130	1	25
1,4-Dichlorobenzene	ND		25.0	25.1		ug/L		100	70 - 130	2	20
2,2-Dichloropropane	ND		25.0	27.3		ug/L		109	69 - 138	1	25
2-Chlorotoluene	ND		25.0	22.3		ug/L		89	70 - 130	0	20
4-Chlorotoluene	ND		25.0	23.1		ug/L		92	70 - 130	1	20
Benzene	ND		25.0	23.1		ug/L		93	66 - 130	1	20
Bromobenzene	ND		25.0	23.6		ug/L		94	70 - 130	2	20
Bromochloromethane	ND		25.0	27.7		ug/L		111	70 - 130	1	25
Bromodichloromethane	ND		25.0	27.7		ug/L		111	70 - 138	0	20
Bromoform	ND		25.0	30.5		ug/L		122	59 - 150	1	25
Bromomethane	ND		25.0	25.8		ug/L		103	62 - 131	0	25
Carbon tetrachloride	ND		25.0	31.8		ug/L		127	60 - 150	0	25
Chlorobenzene	ND		25.0	24.5		ug/L		98	70 - 130	2	20
Chloroethane	ND		25.0	23.7		ug/L		95	68 - 130	0	25
Chloroform	ND		25.0	26.7		ug/L		107	70 - 130	1	20
Chloromethane	ND		25.0	22.6		ug/L		91	39 - 144	4	25
cis-1,2-Dichloroethene	ND		25.0	25.3		ug/L		101	70 - 130	2	20
cis-1,3-Dichloropropene	ND		25.0	23.9		ug/L		96	70 - 133	2	20
Dibromochloromethane	ND		25.0	29.7		ug/L		119	70 - 148	1	25
Dibromomethane	ND		25.0	26.3		ug/L		105	70 - 130	3	25
Dichlorodifluoromethane	ND		25.0	26.9		ug/L		108	25 - 142	5	30
Isopropyl Ether (DIPE)	ND		25.0	23.3		ug/L		93	64 - 138	3	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	25.2		ug/L		101	70 - 130	3	25
Hexachlorobutadiene	ND		25.0	24.6		ug/L		98	10 - 150	1	20
Isopropylbenzene	ND		25.0	28.7		ug/L		115	70 - 132	2	20
m,p-Xylene	ND		25.0	26.4		ug/L		106	70 - 133	1	25
Methylene Chloride	ND		25.0	24.1		ug/L		96	52 - 130	14	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	25.4		ug/L		102	70 - 130	1	25
Naphthalene	ND		25.0	27.0		ug/L		108	60 - 140	1	30
n-Butylbenzene	ND		25.0	25.5		ug/L		102	61 - 149	0	20
N-Propylbenzene	ND		25.0	22.8		ug/L		91	66 - 135	0	20
o-Xylene	ND		25.0	26.8		ug/L		107	70 - 133	3	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-166509-1 MSD
Matrix: Water
Analysis Batch: 371501

Client Sample ID: MW-3-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
p-Isopropyltoluene	ND		25.0	26.4		ug/L		105	70 - 130	0	20
sec-Butylbenzene	ND		25.0	25.1		ug/L		100	67 - 134	0	20
Styrene	ND		25.0	26.0		ug/L		104	29 - 150	2	35
Tert-amyl-methyl ether (TAME)	ND		25.0	24.6		ug/L		98	68 - 133	1	30
tert-Butyl alcohol (TBA)	ND		250	272		ug/L		109	70 - 130	2	25
tert-Butylbenzene	ND		25.0	24.8		ug/L		99	70 - 130	1	20
Tetrachloroethene	ND		25.0	25.7		ug/L		103	70 - 137	6	20
Toluene	ND		25.0	23.1		ug/L		92	70 - 130	2	20
trans-1,2-Dichloroethene	0.32	J	25.0	25.7		ug/L		101	70 - 130	1	20
trans-1,3-Dichloropropene	ND		25.0	25.0		ug/L		100	70 - 138	0	25
Trichloroethene	ND		25.0	28.7		ug/L		115	70 - 130	0	20
Trichlorofluoromethane	ND		25.0	30.5		ug/L		122	60 - 150	1	25
Vinyl chloride	ND		25.0	25.8		ug/L		103	50 - 137	3	30
1,3,5-Trimethylbenzene	ND		25.0	25.2		ug/L		101	70 - 130	3	20
Ethylbenzene	ND		25.0	23.9		ug/L		96	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*82*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*76 - 132*
Toluene-d8 (Surr)	*94*		*80 - 128*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 440-370129/14
Matrix: Water
Analysis Batch: 370129

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50	0.25	mg/L			11/18/16 14:40	1
Sulfate	ND		0.50	0.25	mg/L			11/18/16 14:40	1

Lab Sample ID: LCS 440-370129/12
Matrix: Water
Analysis Batch: 370129

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	5.00	4.82		mg/L		96	90 - 110
Sulfate	5.00	5.05		mg/L		101	90 - 110

Lab Sample ID: MB 440-370130/14
Matrix: Water
Analysis Batch: 370130

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.11	0.055	mg/L			11/18/16 14:40	1
Nitrite as N	ND		0.15	0.070	mg/L			11/18/16 14:40	1
Nitrate as NO3	ND		0.50	0.25	mg/L			11/18/16 14:40	1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 440-370130/12
Matrix: Water
Analysis Batch: 370130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.13	1.11		mg/L		98	90 - 110
Nitrite as N	1.52	1.52		mg/L		100	90 - 110
Nitrate as NO3	5.00	4.90		mg/L		98	90 - 110

Lab Sample ID: 440-166397-B-2 MS
Matrix: Water
Analysis Batch: 370130

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	4.2		1.13	5.48		mg/L		113	80 - 120
Nitrite as N	ND	F1	1.52	2.07	F1	mg/L		136	80 - 120
Nitrate as NO3	19		5.00	24.2		mg/L		113	80 - 120

Lab Sample ID: 440-166397-B-2 MSD
Matrix: Water
Analysis Batch: 370130

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	4.2		1.13	5.43		mg/L		109	80 - 120	1	20
Nitrite as N	ND	F1	1.52	2.03	F1	mg/L		134	80 - 120	2	20
Nitrate as NO3	19		5.00	24.0		mg/L		109	80 - 120	1	20

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 440-370634/1-A
Matrix: Water
Analysis Batch: 371213

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 370634

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.10	0.050	mg/L		11/21/16 10:58	11/22/16 19:43	1
Copper	ND		0.010	0.0050	mg/L		11/21/16 10:58	11/22/16 19:43	1
Iron	ND		0.040	0.010	mg/L		11/21/16 10:58	11/22/16 19:43	1
Potassium	ND		0.50	0.25	mg/L		11/21/16 10:58	11/22/16 19:43	1
Magnesium	ND		0.020	0.010	mg/L		11/21/16 10:58	11/22/16 19:43	1
Manganese	ND		0.020	0.010	mg/L		11/21/16 10:58	11/22/16 19:43	1
Sodium	ND		0.50	0.25	mg/L		11/21/16 10:58	11/22/16 19:43	1
Zinc	ND		0.020	0.010	mg/L		11/21/16 10:58	11/22/16 19:43	1

Lab Sample ID: LCS 440-370634/2-A
Matrix: Water
Analysis Batch: 371213

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370634

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.500	0.523		mg/L		105	85 - 115
Copper	0.500	0.523		mg/L		105	85 - 115
Iron	0.500	0.498		mg/L		100	85 - 115
Potassium	5.00	5.01		mg/L		100	85 - 115
Magnesium	0.500	0.509		mg/L		102	85 - 115
Manganese	0.500	0.542		mg/L		108	85 - 115

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-370634/2-A
Matrix: Water
Analysis Batch: 371213

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370634

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	5.00	5.12		mg/L		102	85 - 115
Zinc	0.500	0.507		mg/L		101	85 - 115

Lab Sample ID: 440-166509-6 MS
Matrix: Water
Analysis Batch: 371213

Client Sample ID: MW-30-20161118
Prep Type: Total Recoverable
Prep Batch: 370634

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	130		0.500	131	4	mg/L		197	70 - 130
Copper	ND		0.500	0.553		mg/L		111	70 - 130
Iron	0.044		0.500	0.587		mg/L		109	70 - 130
Potassium	4.2		5.00	9.54		mg/L		107	70 - 130
Magnesium	16		0.500	16.3	4	mg/L		35	70 - 130
Manganese	ND		0.500	0.548		mg/L		110	70 - 130
Sodium	81		5.00	86.9	4	mg/L		120	70 - 130
Zinc	0.017	J	0.500	0.533		mg/L		103	70 - 130

Lab Sample ID: 440-166509-6 MSD
Matrix: Water
Analysis Batch: 371213

Client Sample ID: MW-30-20161118
Prep Type: Total Recoverable
Prep Batch: 370634

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	130		0.500	130	4	mg/L		180	70 - 130	0	20
Copper	ND		0.500	0.553		mg/L		111	70 - 130	0	20
Iron	0.044		0.500	0.581		mg/L		107	70 - 130	1	20
Potassium	4.2		5.00	9.48		mg/L		106	70 - 130	1	20
Magnesium	16		0.500	16.0	4	mg/L		-11	70 - 130	1	20
Manganese	ND		0.500	0.548		mg/L		110	70 - 130	0	20
Sodium	81		5.00	85.8	4	mg/L		97	70 - 130	1	20
Zinc	0.017	J	0.500	0.533		mg/L		103	70 - 130	0	20

Lab Sample ID: MB 440-370992/1-A
Matrix: Water
Analysis Batch: 371810

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 370992

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		0.010	0.0050	mg/L		11/22/16 11:49	11/26/16 15:23	1
Iron	ND		0.040	0.010	mg/L		11/22/16 11:49	11/26/16 15:23	1
Potassium	ND		0.50	0.25	mg/L		11/22/16 11:49	11/26/16 15:23	1
Magnesium	ND		0.020	0.010	mg/L		11/22/16 11:49	11/26/16 15:23	1
Manganese	ND		0.020	0.010	mg/L		11/22/16 11:49	11/26/16 15:23	1
Sodium	ND		0.50	0.25	mg/L		11/22/16 11:49	11/26/16 15:23	1
Zinc	ND		0.020	0.010	mg/L		11/22/16 11:49	11/26/16 15:23	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: MB 440-370992/1-A
Matrix: Water
Analysis Batch: 372359

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 370992

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.10	0.050	mg/L		11/22/16 11:49	11/29/16 14:47	1

Lab Sample ID: LCS 440-370992/2-A
Matrix: Water
Analysis Batch: 371810

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370992

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.500	0.551		mg/L		110	85 - 115
Iron	0.500	0.586	*	mg/L		117	85 - 115
Potassium	5.00	5.72		mg/L		114	85 - 115
Magnesium	0.500	0.561		mg/L		112	85 - 115
Manganese	0.500	0.600	*	mg/L		120	85 - 115
Sodium	5.00	5.37		mg/L		107	85 - 115
Zinc	0.500	0.552		mg/L		110	85 - 115

Lab Sample ID: LCS 440-370992/2-A
Matrix: Water
Analysis Batch: 372359

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370992

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	0.500	0.560		mg/L		112	85 - 115

Lab Sample ID: 440-166075-F-1-B MS ^2
Matrix: Water
Analysis Batch: 371810

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 370992

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	93	*	0.500	99.8	4	mg/L		1273	70 - 130
Potassium	31		5.00	38.2	4	mg/L		146	70 - 130
Magnesium	160		0.500	170	4	mg/L		1250	70 - 130
Manganese	2.1	*	0.500	2.71	4	mg/L		115	70 - 130
Sodium	390		5.00	398	4	mg/L		171	70 - 130
Zinc	0.55		0.500	1.05		mg/L		100	70 - 130

Lab Sample ID: 440-166075-F-1-B MS ^2
Matrix: Water
Analysis Batch: 372359

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 370992

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	790		0.500	810	4	mg/L		3084	70 - 130

Lab Sample ID: 440-166075-F-1-C MSD ^2
Matrix: Water
Analysis Batch: 371810

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 370992

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	93	*	0.500	109	4	mg/L		3156	70 - 130	9	20
Potassium	31		5.00	41.0	4	mg/L		203	70 - 130	7	20
Magnesium	160		0.500	192	4	mg/L		5565	70 - 130	12	20

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 440-166075-F-1-C MSD ^2
Matrix: Water
Analysis Batch: 371810

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 370992

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Manganese	2.1	*	0.500	2.90	4	mg/L		154	70 - 130	7	20
Sodium	390		5.00	436	4	mg/L		915	70 - 130	9	20
Zinc	0.55		0.500	1.15		mg/L		119	70 - 130	9	20

Lab Sample ID: 440-166075-F-1-C MSD ^2
Matrix: Water
Analysis Batch: 372359

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 370992

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	790		0.500	761	4	mg/L		-6668	70 - 130	6	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-370616/1-A
Matrix: Water
Analysis Batch: 371216

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 370616

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/21/16 10:08	11/22/16 23:36	1
Copper	ND		0.010	0.0050	mg/L		11/21/16 10:08	11/22/16 23:36	1
Lead	ND		0.0050	0.0025	mg/L		11/21/16 10:08	11/22/16 23:36	1
Cobalt	ND		0.010	0.0025	mg/L		11/21/16 10:08	11/22/16 23:36	1
Molybdenum	ND		0.020	0.010	mg/L		11/21/16 10:08	11/22/16 23:36	1
Chromium	ND		0.0050	0.0025	mg/L		11/21/16 10:08	11/22/16 23:36	1
Nickel	ND		0.010	0.0050	mg/L		11/21/16 10:08	11/22/16 23:36	1
Cadmium	ND		0.0050	0.0020	mg/L		11/21/16 10:08	11/22/16 23:36	1
Selenium	ND	^	0.010	0.0061	mg/L		11/21/16 10:08	11/22/16 23:36	1
Beryllium	ND		0.0020	0.0010	mg/L		11/21/16 10:08	11/22/16 23:36	1
Thallium	ND		0.010	0.0050	mg/L		11/21/16 10:08	11/22/16 23:36	1
Barium	ND		0.010	0.0050	mg/L		11/21/16 10:08	11/22/16 23:36	1
Vanadium	ND		0.010	0.0050	mg/L		11/21/16 10:08	11/22/16 23:36	1
Arsenic	ND		0.010	0.0050	mg/L		11/21/16 10:08	11/22/16 23:36	1
Zinc	ND		0.020	0.010	mg/L		11/21/16 10:08	11/22/16 23:36	1
Silver	ND		0.010	0.0050	mg/L		11/21/16 10:08	11/22/16 23:36	1

Lab Sample ID: LCS 440-370616/2-A
Matrix: Water
Analysis Batch: 371216

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	0.956		mg/L		96	80 - 120
Copper	1.00	1.01		mg/L		101	80 - 120
Lead	1.00	0.946		mg/L		95	80 - 120
Cobalt	1.00	0.956		mg/L		96	80 - 120
Molybdenum	1.00	0.938		mg/L		94	80 - 120
Chromium	1.00	0.973		mg/L		97	80 - 120
Nickel	1.00	0.973		mg/L		97	80 - 120
Cadmium	1.00	0.951		mg/L		95	80 - 120
Selenium	1.00	0.932	^	mg/L		93	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-370616/2-A
Matrix: Water
Analysis Batch: 371216

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370616

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	1.00	0.983		mg/L		98	80 - 120
Thallium	1.00	0.995		mg/L		100	80 - 120
Barium	1.00	0.954		mg/L		95	80 - 120
Vanadium	1.00	0.964		mg/L		96	80 - 120
Arsenic	1.00	0.965		mg/L		96	80 - 120
Zinc	1.00	0.947		mg/L		95	80 - 120
Silver	0.500	0.472		mg/L		94	80 - 120

Lab Sample ID: 440-166084-A-1-B MS
Matrix: Water
Analysis Batch: 371216

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 370616

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.050		1.00	1.01		mg/L		96	75 - 125
Copper	1.7		1.00	2.73		mg/L		103	75 - 125
Lead	0.086		1.00	1.04		mg/L		95	75 - 125
Cobalt	0.12		1.00	1.09		mg/L		97	75 - 125
Molybdenum	0.44		1.00	1.39		mg/L		94	75 - 125
Chromium	12		1.00	12.4	4	mg/L		85	75 - 125
Nickel	7.2		1.00	8.13	4	mg/L		90	75 - 125
Cadmium	0.47		1.00	1.39		mg/L		93	75 - 125
Selenium	ND	F1 ^ L	1.00	0.814	^	mg/L		81	75 - 125
Beryllium	ND		1.00	0.982		mg/L		98	75 - 125
Thallium	ND		1.00	1.01		mg/L		101	75 - 125
Barium	0.10		1.00	1.10		mg/L		100	75 - 125
Vanadium	0.12		1.00	1.18		mg/L		106	75 - 125
Arsenic	ND		1.00	0.961		mg/L		96	75 - 125
Zinc	2.3		1.00	3.22		mg/L		91	75 - 125
Silver	0.085		0.500	0.572		mg/L		97	75 - 125

Lab Sample ID: 440-166084-A-1-C MSD
Matrix: Water
Analysis Batch: 371216

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 370616

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.050		1.00	0.907		mg/L		86	75 - 125	11	20
Copper	1.7		1.00	2.62		mg/L		91	75 - 125	4	20
Lead	0.086		1.00	0.933		mg/L		85	75 - 125	10	20
Cobalt	0.12		1.00	0.988		mg/L		87	75 - 125	10	20
Molybdenum	0.44		1.00	1.29		mg/L		84	75 - 125	7	20
Chromium	12		1.00	12.5	4	mg/L		87	75 - 125	0	20
Nickel	7.2		1.00	8.07	4	mg/L		84	75 - 125	1	20
Cadmium	0.47		1.00	1.29		mg/L		82	75 - 125	8	20
Selenium	ND	F1 ^ L	1.00	0.721	^ F1	mg/L		72	75 - 125	12	20
Beryllium	ND		1.00	0.867		mg/L		87	75 - 125	12	20
Thallium	ND		1.00	0.882		mg/L		88	75 - 125	14	20
Barium	0.10		1.00	1.11		mg/L		101	75 - 125	1	20
Vanadium	0.12		1.00	1.06		mg/L		94	75 - 125	10	20
Arsenic	ND		1.00	0.851		mg/L		85	75 - 125	12	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-166084-A-1-C MSD
Matrix: Water
Analysis Batch: 371216

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 370616

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Zinc	2.3		1.00	3.13		mg/L		82	75 - 125	3	20
Silver	0.085		0.500	0.573		mg/L		98	75 - 125	0	20

Lab Sample ID: MB 440-370911/1-A
Matrix: Water
Analysis Batch: 371801

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 370911

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/22/16 09:14	11/26/16 13:39	1
Copper	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:39	1
Lead	ND		0.0050	0.0025	mg/L		11/22/16 09:14	11/26/16 13:39	1
Cobalt	ND		0.010	0.0025	mg/L		11/22/16 09:14	11/26/16 13:39	1
Molybdenum	ND		0.020	0.010	mg/L		11/22/16 09:14	11/26/16 13:39	1
Chromium	ND		0.0050	0.0025	mg/L		11/22/16 09:14	11/26/16 13:39	1
Nickel	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:39	1
Cadmium	ND		0.0050	0.0020	mg/L		11/22/16 09:14	11/26/16 13:39	1
Selenium	ND		0.010	0.0061	mg/L		11/22/16 09:14	11/26/16 13:39	1
Beryllium	ND		0.0020	0.0010	mg/L		11/22/16 09:14	11/26/16 13:39	1
Thallium	0.00560	J	0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:39	1
Barium	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:39	1
Vanadium	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:39	1
Arsenic	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/26/16 13:39	1
Zinc	ND		0.020	0.010	mg/L		11/22/16 09:14	11/26/16 13:39	1

Lab Sample ID: MB 440-370911/1-A
Matrix: Water
Analysis Batch: 372054

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 370911

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.010	0.0050	mg/L		11/22/16 09:14	11/28/16 13:33	1

Lab Sample ID: LCS 440-370911/2-A
Matrix: Water
Analysis Batch: 371801

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	1.06		mg/L		106	80 - 120
Copper	1.00	1.10		mg/L		110	80 - 120
Lead	1.00	1.09		mg/L		109	80 - 120
Cobalt	1.00	0.987		mg/L		99	80 - 120
Molybdenum	1.00	0.991		mg/L		99	80 - 120
Chromium	1.00	1.07		mg/L		107	80 - 120
Nickel	1.00	1.07		mg/L		107	80 - 120
Cadmium	1.00	1.05		mg/L		105	80 - 120
Selenium	1.00	1.01		mg/L		101	80 - 120
Beryllium	1.00	1.04		mg/L		104	80 - 120
Thallium	1.00	1.09		mg/L		109	80 - 120
Barium	1.00	1.03		mg/L		103	80 - 120
Vanadium	1.00	1.05		mg/L		105	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-370911/2-A
Matrix: Water
Analysis Batch: 371801

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.06		mg/L		106	80 - 120
Zinc	1.00	1.06		mg/L		106	80 - 120

Lab Sample ID: LCS 440-370911/2-A
Matrix: Water
Analysis Batch: 372054

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	0.500	0.517		mg/L		103	80 - 120

Lab Sample ID: MB 440-370994/1-A
Matrix: Water
Analysis Batch: 371800

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 370994

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		11/22/16 11:50	11/26/16 12:59	1
Copper	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 12:59	1
Lead	ND		0.0050	0.0025	mg/L		11/22/16 11:50	11/26/16 12:59	1
Cobalt	ND		0.010	0.0025	mg/L		11/22/16 11:50	11/26/16 12:59	1
Molybdenum	ND		0.020	0.010	mg/L		11/22/16 11:50	11/26/16 12:59	1
Chromium	ND		0.0050	0.0025	mg/L		11/22/16 11:50	11/26/16 12:59	1
Nickel	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 12:59	1
Cadmium	ND		0.0050	0.0020	mg/L		11/22/16 11:50	11/26/16 12:59	1
Selenium	ND		0.010	0.0061	mg/L		11/22/16 11:50	11/26/16 12:59	1
Beryllium	ND		0.0020	0.0010	mg/L		11/22/16 11:50	11/26/16 12:59	1
Thallium	0.00686	J	0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 12:59	1
Barium	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 12:59	1
Vanadium	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 12:59	1
Arsenic	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 12:59	1
Zinc	ND		0.020	0.010	mg/L		11/22/16 11:50	11/26/16 12:59	1
Silver	ND		0.010	0.0050	mg/L		11/22/16 11:50	11/26/16 12:59	1

Lab Sample ID: LCS 440-370994/2-A
Matrix: Water
Analysis Batch: 371800

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370994

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	1.02		mg/L		102	80 - 120
Copper	1.00	1.06		mg/L		106	80 - 120
Lead	1.00	1.03		mg/L		103	80 - 120
Cobalt	1.00	0.999		mg/L		100	80 - 120
Molybdenum	1.00	1.00		mg/L		100	80 - 120
Chromium	1.00	1.03		mg/L		103	80 - 120
Nickel	1.00	1.03		mg/L		103	80 - 120
Cadmium	1.00	1.00		mg/L		100	80 - 120
Selenium	1.00	0.965		mg/L		97	80 - 120
Beryllium	1.00	1.02		mg/L		102	80 - 120
Thallium	1.00	1.05		mg/L		105	80 - 120
Barium	1.00	1.00		mg/L		100	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-370994/2-A
Matrix: Water
Analysis Batch: 371800

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 370994

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vanadium	1.00	1.01		mg/L		101	80 - 120
Arsenic	1.00	1.03		mg/L		103	80 - 120
Zinc	1.00	1.01		mg/L		101	80 - 120
Silver	0.500	0.493		mg/L		99	80 - 120

Lab Sample ID: 440-166509-1 MS
Matrix: Water
Analysis Batch: 371800

Client Sample ID: MW-3-20161118
Prep Type: Total Recoverable
Prep Batch: 370994

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		1.00	1.03		mg/L		103	75 - 125
Copper	ND		1.00	1.09		mg/L		109	75 - 125
Lead	ND		1.00	1.03		mg/L		103	75 - 125
Cobalt	ND		1.00	0.980		mg/L		98	75 - 125
Molybdenum	ND		1.00	1.01		mg/L		101	75 - 125
Chromium	0.020		1.00	1.03		mg/L		101	75 - 125
Nickel	0.0059	J	1.00	1.00		mg/L		99	75 - 125
Cadmium	ND		1.00	0.968		mg/L		97	75 - 125
Selenium	0.0094	J	1.00	0.980		mg/L		97	75 - 125
Beryllium	ND		1.00	1.02		mg/L		102	75 - 125
Thallium	0.0079	J B	1.00	1.03		mg/L		102	75 - 125
Barium	0.097		1.00	1.07		mg/L		97	75 - 125
Vanadium	ND		1.00	1.01		mg/L		101	75 - 125
Arsenic	ND		1.00	1.07		mg/L		107	75 - 125
Zinc	0.012	J	1.00	1.02		mg/L		100	75 - 125
Silver	ND		0.500	0.496		mg/L		99	75 - 125

Lab Sample ID: 440-166509-1 MSD
Matrix: Water
Analysis Batch: 371800

Client Sample ID: MW-3-20161118
Prep Type: Total Recoverable
Prep Batch: 370994

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		1.00	1.00		mg/L		100	75 - 125	2	20
Copper	ND		1.00	1.08		mg/L		108	75 - 125	1	20
Lead	ND		1.00	1.01		mg/L		101	75 - 125	2	20
Cobalt	ND		1.00	0.957		mg/L		96	75 - 125	2	20
Molybdenum	ND		1.00	0.990		mg/L		99	75 - 125	2	20
Chromium	0.020		1.00	1.03		mg/L		101	75 - 125	1	20
Nickel	0.0059	J	1.00	0.994		mg/L		99	75 - 125	1	20
Cadmium	ND		1.00	0.963		mg/L		96	75 - 125	0	20
Selenium	0.0094	J	1.00	0.956		mg/L		95	75 - 125	2	20
Beryllium	ND		1.00	1.00		mg/L		100	75 - 125	2	20
Thallium	0.0079	J B	1.00	1.01		mg/L		100	75 - 125	2	20
Barium	0.097		1.00	1.06		mg/L		96	75 - 125	1	20
Vanadium	ND		1.00	1.00		mg/L		100	75 - 125	1	20
Arsenic	ND		1.00	1.04		mg/L		104	75 - 125	3	20
Zinc	0.012	J	1.00	1.01		mg/L		99	75 - 125	1	20
Silver	ND		0.500	0.495		mg/L		99	75 - 125	0	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-166509-1 MS
Matrix: Water
Analysis Batch: 371801

Client Sample ID: MW-3-20161118
Prep Type: Dissolved
Prep Batch: 370911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		1.00	0.972		mg/L		97	75 - 125
Copper	ND		1.00	1.04		mg/L		104	75 - 125
Lead	0.0036	J	1.00	0.994		mg/L		99	75 - 125
Cobalt	ND		1.00	0.930		mg/L		93	75 - 125
Molybdenum	ND		1.00	0.963		mg/L		96	75 - 125
Chromium	0.019		1.00	1.01		mg/L		99	75 - 125
Nickel	ND		1.00	0.973		mg/L		97	75 - 125
Cadmium	ND		1.00	0.942		mg/L		94	75 - 125
Selenium	0.0081	J	1.00	0.934		mg/L		93	75 - 125
Beryllium	ND		1.00	0.969		mg/L		97	75 - 125
Thallium	0.0082	J B	1.00	0.989		mg/L		98	75 - 125
Barium	0.10		1.00	1.03		mg/L		93	75 - 125
Vanadium	ND		1.00	0.977		mg/L		98	75 - 125
Arsenic	ND		1.00	1.02		mg/L		102	75 - 125
Zinc	ND		1.00	0.981		mg/L		98	75 - 125

Lab Sample ID: 440-166509-1 MS
Matrix: Water
Analysis Batch: 372054

Client Sample ID: MW-3-20161118
Prep Type: Dissolved
Prep Batch: 370911

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	ND		0.500	0.508		mg/L		102	75 - 125

Lab Sample ID: 440-166509-1 MSD
Matrix: Water
Analysis Batch: 371801

Client Sample ID: MW-3-20161118
Prep Type: Dissolved
Prep Batch: 370911

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		1.00	1.02		mg/L		102	75 - 125	5	20
Copper	ND		1.00	1.09		mg/L		109	75 - 125	5	20
Lead	0.0036	J	1.00	1.06		mg/L		105	75 - 125	6	20
Cobalt	ND		1.00	0.986		mg/L		99	75 - 125	6	20
Molybdenum	ND		1.00	1.02		mg/L		102	75 - 125	6	20
Chromium	0.019		1.00	1.05		mg/L		103	75 - 125	4	20
Nickel	ND		1.00	1.02		mg/L		102	75 - 125	4	20
Cadmium	ND		1.00	0.993		mg/L		99	75 - 125	5	20
Selenium	0.0081	J	1.00	0.985		mg/L		98	75 - 125	5	20
Beryllium	ND		1.00	1.02		mg/L		102	75 - 125	5	20
Thallium	0.0082	J B	1.00	1.04		mg/L		104	75 - 125	5	20
Barium	0.10		1.00	1.08		mg/L		98	75 - 125	5	20
Vanadium	ND		1.00	1.02		mg/L		102	75 - 125	5	20
Arsenic	ND		1.00	1.08		mg/L		108	75 - 125	6	20
Zinc	ND		1.00	1.03		mg/L		103	75 - 125	5	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-166509-1 MSD — **Client Sample ID: MW-3-20161118**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 372054 — **Prep Batch: 370911**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	ND		0.500	0.525		mg/L		105	75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 440-370671/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 370823 — **Prep Batch: 370671**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		11/21/16 12:43	11/21/16 21:02	1

Lab Sample ID: LCS 440-370671/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 370823 — **Prep Batch: 370671**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00800	0.00653		mg/L		82	80 - 120

Lab Sample ID: 720-75910-A-1-I MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 370823 — **Prep Batch: 370671**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00800	0.00789		mg/L		99	70 - 130

Lab Sample ID: 720-75910-A-1-J MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 370823 — **Prep Batch: 370671**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00800	0.00841		mg/L		105	70 - 130	6	20

Lab Sample ID: MB 440-370977/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371151 — **Prep Batch: 370977**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		11/22/16 11:15	11/22/16 18:33	1

Lab Sample ID: LCS 440-370977/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 371151 — **Prep Batch: 370977**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00800	0.00876		mg/L		109	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 440-166693-H-4-B MS
Matrix: Water
Analysis Batch: 371151

Client Sample ID: Matrix Spike
Prep Type: Dissolved
Prep Batch: 370977

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND	F1	0.00800	0.00521	F1	mg/L		65	70 - 130

Lab Sample ID: 440-166693-H-4-C MSD
Matrix: Water
Analysis Batch: 371151

Client Sample ID: Matrix Spike Duplicate
Prep Type: Dissolved
Prep Batch: 370977

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND	F1	0.00800	0.00508	F1	mg/L		63	70 - 130	3	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 440-370315/10
Matrix: Water
Analysis Batch: 370315

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.025	0.0050	mg/L			11/18/16 20:58	1

Lab Sample ID: LCS 440-370315/8
Matrix: Water
Analysis Batch: 370315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.100	0.102		mg/L		102	90 - 110

Lab Sample ID: 440-166509-1 MS
Matrix: Water
Analysis Batch: 370315

Client Sample ID: MW-3-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.021	J	0.300	0.317		mg/L		99	85 - 115

Lab Sample ID: 440-166509-1 MSD
Matrix: Water
Analysis Batch: 370315

Client Sample ID: MW-3-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	0.021	J	0.300	0.315		mg/L		98	85 - 115	0	20

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 440-370444/3
Matrix: Water
Analysis Batch: 370444

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/19/16 10:33	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/19/16 10:33	1
Carbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/19/16 10:33	1

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 440-370444/3
Matrix: Water
Analysis Batch: 370444

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hydroxide Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/19/16 10:33	1

Lab Sample ID: LCS 440-370444/2
Matrix: Water
Analysis Batch: 370444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3	85.8	86.2		mg/L		101	80 - 120

Lab Sample ID: 440-166208-A-1 DU
Matrix: Water
Analysis Batch: 370444

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3	170		169		mg/L		0.05	20
Bicarbonate Alkalinity as CaCO3	170		169		mg/L		0.05	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Lab Sample ID: MB 440-370551/3
Matrix: Water
Analysis Batch: 370551

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/21/16 05:54	1
Bicarbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/21/16 05:54	1
Carbonate Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/21/16 05:54	1
Hydroxide Alkalinity as CaCO3	ND		4.0	4.0	mg/L			11/21/16 05:54	1

Lab Sample ID: LCS 440-370551/2
Matrix: Water
Analysis Batch: 370551

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3	85.8	86.1		mg/L		100	80 - 120

Lab Sample ID: 440-166509-6 DU
Matrix: Water
Analysis Batch: 370551

Client Sample ID: MW-30-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3	240		245		mg/L		0.7	20
Bicarbonate Alkalinity as CaCO3	240		245		mg/L		0.7	20
Carbonate Alkalinity as CaCO3	ND		ND		mg/L		NC	20
Hydroxide Alkalinity as CaCO3	ND		ND		mg/L		NC	20

Method: SM 2510B - Conductivity, Specific Conductance

Lab Sample ID: MB 440-370603/3
Matrix: Water
Analysis Batch: 370603

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	ND		1.0		umhos/cm			11/21/16 09:20	1

Lab Sample ID: LCS 440-370603/4
Matrix: Water
Analysis Batch: 370603

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Specific Conductance	1060	1120		umhos/cm		106	90 - 110

Lab Sample ID: 440-166509-1 DU
Matrix: Water
Analysis Batch: 370603

Client Sample ID: MW-3-20161118
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Specific Conductance	1000		1000		umhos/cm		0.6	5

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 440-370916/1
Matrix: Water
Analysis Batch: 370916

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			11/22/16 09:21	1

Lab Sample ID: LCS 440-370916/2
Matrix: Water
Analysis Batch: 370916

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	992		mg/L		99	90 - 110

Lab Sample ID: 440-166006-I-7 DU
Matrix: Water
Analysis Batch: 370916

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	2800		2830		mg/L		0.5	5

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 440-370611/10
Matrix: Water
Analysis Batch: 370611

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.10	0.050	mg/L			11/21/16 09:08	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 440-370611/9
Matrix: Water
Analysis Batch: 370611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			1.00	0.977		mg/L		98	90 - 110		

Lab Sample ID: MRL 440-370611/11
Matrix: Water
Analysis Batch: 370611

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			0.100	0.0983	J	mg/L		98	10 - 200		

Lab Sample ID: 440-165760-D-1 MS
Matrix: Water
Analysis Batch: 370611

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.70		1.00	1.75		mg/L		105	80 - 120		

Lab Sample ID: 440-165760-D-1 MSD
Matrix: Water
Analysis Batch: 370611

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.70		1.00	1.68		mg/L		98	80 - 120	4	20

Method: SM 4500 H+ B - pH

Lab Sample ID: 440-166205-A-1 DU
Matrix: Water
Analysis Batch: 371602

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.5			7.5		SU				0	2

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 440-370331/4
Matrix: Water
Analysis Batch: 370331

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Blue Active Substances	ND		0.10	0.050	mg/L			11/18/16 22:43	1

Lab Sample ID: LCS 440-370331/5
Matrix: Water
Analysis Batch: 370331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methylene Blue Active Substances			0.250	0.226		mg/L		90	90 - 110		

Method: SM 5540C - Methylene Blue Active Substances (MBAS) (Continued)

Lab Sample ID: MRL 440-370331/26
Matrix: Water
Analysis Batch: 370331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Blue Active Substances	0.100	0.109		mg/L		109	50 - 150

Lab Sample ID: MRL 440-370331/3
Matrix: Water
Analysis Batch: 370331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Blue Active Substances	0.100	0.117		mg/L		117	50 - 150

Lab Sample ID: 440-166505-C-1 MS
Matrix: Water
Analysis Batch: 370331

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Blue Active Substances	ND		0.250	0.281		mg/L		112	50 - 125

Lab Sample ID: 440-166505-C-1 MSD
Matrix: Water
Analysis Batch: 370331

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methylene Blue Active Substances	ND		0.250	0.272		mg/L		109	50 - 125	3	20

Lab Sample ID: 440-166482-A-1 DU
Matrix: Water
Analysis Batch: 370331

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Methylene Blue Active Substances	ND		ND		mg/L		NC	20

QC Association Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-166509-1

GC/MS VOA

Analysis Batch: 371412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-2	MW-4-20161118	Total/NA	Water	8260B	
440-166509-5	TB-1-20161118	Total/NA	Water	8260B	
440-166509-6	MW-30-20161118	Total/NA	Water	8260B	
MB 440-371412/4	Method Blank	Total/NA	Water	8260B	
LCS 440-371412/5	Lab Control Sample	Total/NA	Water	8260B	
440-166509-2 MS	MW-4-20161118	Total/NA	Water	8260B	
440-166509-2 MSD	MW-4-20161118	Total/NA	Water	8260B	

Analysis Batch: 371501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total/NA	Water	8260B	
MB 440-371501/4	Method Blank	Total/NA	Water	8260B	
LCS 440-371501/5	Lab Control Sample	Total/NA	Water	8260B	
440-166509-1 MS	MW-3-20161118	Total/NA	Water	8260B	
440-166509-1 MSD	MW-3-20161118	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 370129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total/NA	Water	300.0	
440-166509-2	MW-4-20161118	Total/NA	Water	300.0	
440-166509-4	SW-2-20161118	Total/NA	Water	300.0	
440-166509-6	MW-30-20161118	Total/NA	Water	300.0	
MB 440-370129/14	Method Blank	Total/NA	Water	300.0	
LCS 440-370129/12	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 370130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total/NA	Water	300.0	
440-166509-1	MW-3-20161118	Total/NA	Water	300.0	
440-166509-2	MW-4-20161118	Total/NA	Water	300.0	
440-166509-2	MW-4-20161118	Total/NA	Water	300.0	
440-166509-4	SW-2-20161118	Total/NA	Water	300.0	
440-166509-6	MW-30-20161118	Total/NA	Water	300.0	
440-166509-6	MW-30-20161118	Total/NA	Water	300.0	
MB 440-370130/14	Method Blank	Total/NA	Water	300.0	
LCS 440-370130/12	Lab Control Sample	Total/NA	Water	300.0	
440-166397-B-2 MS	Matrix Spike	Total/NA	Water	300.0	
440-166397-B-2 MSD	Matrix Spike Duplicate	Total/NA	Water	300.0	

Metals

Prep Batch: 370616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-6	MW-30-20161118	Total Recoverable	Water	3005A	
MB 440-370616/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-370616/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-166084-A-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
440-166084-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 370634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total Recoverable	Water	200.2	
440-166509-2	MW-4-20161118	Total Recoverable	Water	200.2	
440-166509-6	MW-30-20161118	Total Recoverable	Water	200.2	
MB 440-370634/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-370634/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-166509-6 MS	MW-30-20161118	Total Recoverable	Water	200.2	
440-166509-6 MSD	MW-30-20161118	Total Recoverable	Water	200.2	

Prep Batch: 370671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total/NA	Water	7470A	
440-166509-2	MW-4-20161118	Total/NA	Water	7470A	
440-166509-3	SW-1-20161118	Total/NA	Water	7470A	
440-166509-4	SW-2-20161118	Total/NA	Water	7470A	
440-166509-6	MW-30-20161118	Total/NA	Water	7470A	
MB 440-370671/1-A	Method Blank	Total/NA	Water	7470A	
LCS 440-370671/2-A	Lab Control Sample	Total/NA	Water	7470A	
720-75910-A-1-I MS	Matrix Spike	Total/NA	Water	7470A	
720-75910-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 370823

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total/NA	Water	7470A	370671
440-166509-2	MW-4-20161118	Total/NA	Water	7470A	370671
440-166509-3	SW-1-20161118	Total/NA	Water	7470A	370671
440-166509-4	SW-2-20161118	Total/NA	Water	7470A	370671
440-166509-6	MW-30-20161118	Total/NA	Water	7470A	370671
MB 440-370671/1-A	Method Blank	Total/NA	Water	7470A	370671
LCS 440-370671/2-A	Lab Control Sample	Total/NA	Water	7470A	370671
720-75910-A-1-I MS	Matrix Spike	Total/NA	Water	7470A	370671
720-75910-A-1-J MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	370671

Prep Batch: 370911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Dissolved	Water	3005A	
440-166509-2	MW-4-20161118	Dissolved	Water	3005A	
440-166509-3	SW-1-20161118	Dissolved	Water	3005A	
440-166509-4	SW-2-20161118	Dissolved	Water	3005A	
440-166509-6	MW-30-20161118	Dissolved	Water	3005A	
MB 440-370911/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-370911/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-166509-1 MS	MW-3-20161118	Dissolved	Water	3005A	
440-166509-1 MSD	MW-3-20161118	Dissolved	Water	3005A	

Prep Batch: 370977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Dissolved	Water	7470A	
440-166509-2	MW-4-20161118	Dissolved	Water	7470A	
440-166509-3	SW-1-20161118	Dissolved	Water	7470A	
440-166509-4	SW-2-20161118	Dissolved	Water	7470A	
440-166509-6	MW-30-20161118	Dissolved	Water	7470A	

Metals (Continued)

Prep Batch: 370977 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-370977/1-A	Method Blank	Total/NA	Water	7470A	
LCS 440-370977/2-A	Lab Control Sample	Total/NA	Water	7470A	
440-166693-H-4-B MS	Matrix Spike	Dissolved	Water	7470A	
440-166693-H-4-C MSD	Matrix Spike Duplicate	Dissolved	Water	7470A	

Prep Batch: 370992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-4	SW-2-20161118	Total Recoverable	Water	200.2	
MB 440-370992/1-A	Method Blank	Total Recoverable	Water	200.2	
LCS 440-370992/2-A	Lab Control Sample	Total Recoverable	Water	200.2	
440-166075-F-1-B MS ^2	Matrix Spike	Total Recoverable	Water	200.2	
440-166075-F-1-C MSD ^2	Matrix Spike Duplicate	Total Recoverable	Water	200.2	

Prep Batch: 370994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total Recoverable	Water	3005A	
440-166509-2	MW-4-20161118	Total Recoverable	Water	3005A	
440-166509-3	SW-1-20161118	Total Recoverable	Water	3005A	
440-166509-4	SW-2-20161118	Total Recoverable	Water	3005A	
MB 440-370994/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-370994/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-166509-1 MS	MW-3-20161118	Total Recoverable	Water	3005A	
440-166509-1 MSD	MW-3-20161118	Total Recoverable	Water	3005A	

Analysis Batch: 371151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Dissolved	Water	7470A	370977
440-166509-2	MW-4-20161118	Dissolved	Water	7470A	370977
440-166509-3	SW-1-20161118	Dissolved	Water	7470A	370977
440-166509-4	SW-2-20161118	Dissolved	Water	7470A	370977
440-166509-6	MW-30-20161118	Dissolved	Water	7470A	370977
MB 440-370977/1-A	Method Blank	Total/NA	Water	7470A	370977
LCS 440-370977/2-A	Lab Control Sample	Total/NA	Water	7470A	370977
440-166693-H-4-B MS	Matrix Spike	Dissolved	Water	7470A	370977
440-166693-H-4-C MSD	Matrix Spike Duplicate	Dissolved	Water	7470A	370977

Analysis Batch: 371213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total Recoverable	Water	200.7 Rev 4.4	370634
440-166509-2	MW-4-20161118	Total Recoverable	Water	200.7 Rev 4.4	370634
440-166509-6	MW-30-20161118	Total Recoverable	Water	200.7 Rev 4.4	370634
MB 440-370634/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	370634
LCS 440-370634/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	370634
440-166509-6 MS	MW-30-20161118	Total Recoverable	Water	200.7 Rev 4.4	370634
440-166509-6 MSD	MW-30-20161118	Total Recoverable	Water	200.7 Rev 4.4	370634

Analysis Batch: 371216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-6	MW-30-20161118	Total Recoverable	Water	6010B	370616
MB 440-370616/1-A	Method Blank	Total Recoverable	Water	6010B	370616
LCS 440-370616/2-A	Lab Control Sample	Total Recoverable	Water	6010B	370616

Metals (Continued)

Analysis Batch: 371216 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166084-A-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	370616
440-166084-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	370616

Analysis Batch: 371800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total Recoverable	Water	6010B	370994
440-166509-2	MW-4-20161118	Total Recoverable	Water	6010B	370994
440-166509-3	SW-1-20161118	Total Recoverable	Water	6010B	370994
440-166509-4	SW-2-20161118	Total Recoverable	Water	6010B	370994
MB 440-370994/1-A	Method Blank	Total Recoverable	Water	6010B	370994
LCS 440-370994/2-A	Lab Control Sample	Total Recoverable	Water	6010B	370994
440-166509-1 MS	MW-3-20161118	Total Recoverable	Water	6010B	370994
440-166509-1 MSD	MW-3-20161118	Total Recoverable	Water	6010B	370994

Analysis Batch: 371801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Dissolved	Water	6010B	370911
440-166509-2	MW-4-20161118	Dissolved	Water	6010B	370911
440-166509-3	SW-1-20161118	Dissolved	Water	6010B	370911
440-166509-4	SW-2-20161118	Dissolved	Water	6010B	370911
440-166509-6	MW-30-20161118	Dissolved	Water	6010B	370911
MB 440-370911/1-A	Method Blank	Total Recoverable	Water	6010B	370911
LCS 440-370911/2-A	Lab Control Sample	Total Recoverable	Water	6010B	370911
440-166509-1 MS	MW-3-20161118	Dissolved	Water	6010B	370911
440-166509-1 MSD	MW-3-20161118	Dissolved	Water	6010B	370911

Analysis Batch: 371810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-4	SW-2-20161118	Total Recoverable	Water	200.7 Rev 4.4	370992
MB 440-370992/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	370992
LCS 440-370992/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	370992
440-166075-F-1-B MS ^2	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	370992
440-166075-F-1-C MSD ^2	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	370992

Analysis Batch: 372054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Dissolved	Water	6010B	370911
440-166509-2	MW-4-20161118	Dissolved	Water	6010B	370911
440-166509-3	SW-1-20161118	Dissolved	Water	6010B	370911
440-166509-4	SW-2-20161118	Dissolved	Water	6010B	370911
440-166509-6	MW-30-20161118	Dissolved	Water	6010B	370911
MB 440-370911/1-A	Method Blank	Total Recoverable	Water	6010B	370911
LCS 440-370911/2-A	Lab Control Sample	Total Recoverable	Water	6010B	370911
440-166509-1 MS	MW-3-20161118	Dissolved	Water	6010B	370911
440-166509-1 MSD	MW-3-20161118	Dissolved	Water	6010B	370911

Analysis Batch: 372359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-4	SW-2-20161118	Total Recoverable	Water	200.7 Rev 4.4	370992
MB 440-370992/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	370992
LCS 440-370992/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	370992

Metals (Continued)

Analysis Batch: 372359 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166075-F-1-B MS ^2	Matrix Spike	Total Recoverable	Water	200.7 Rev 4.4	370992
440-166075-F-1-C MSD ^2	Matrix Spike Duplicate	Total Recoverable	Water	200.7 Rev 4.4	370992

General Chemistry

Analysis Batch: 370315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total/NA	Water	7196A	
440-166509-2	MW-4-20161118	Total/NA	Water	7196A	
440-166509-3	SW-1-20161118	Total/NA	Water	7196A	
440-166509-4	SW-2-20161118	Total/NA	Water	7196A	
440-166509-6	MW-30-20161118	Total/NA	Water	7196A	
MB 440-370315/10	Method Blank	Total/NA	Water	7196A	
LCS 440-370315/8	Lab Control Sample	Total/NA	Water	7196A	
440-166509-1 MS	MW-3-20161118	Total/NA	Water	7196A	
440-166509-1 MSD	MW-3-20161118	Total/NA	Water	7196A	

Analysis Batch: 370331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total/NA	Water	SM 5540C	
440-166509-2	MW-4-20161118	Total/NA	Water	SM 5540C	
440-166509-4	SW-2-20161118	Total/NA	Water	SM 5540C	
440-166509-6	MW-30-20161118	Total/NA	Water	SM 5540C	
MB 440-370331/4	Method Blank	Total/NA	Water	SM 5540C	
LCS 440-370331/5	Lab Control Sample	Total/NA	Water	SM 5540C	
MRL 440-370331/26	Lab Control Sample	Total/NA	Water	SM 5540C	
MRL 440-370331/3	Lab Control Sample	Total/NA	Water	SM 5540C	
440-166505-C-1 MS	Matrix Spike	Total/NA	Water	SM 5540C	
440-166505-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 5540C	
440-166482-A-1 DU	Duplicate	Total/NA	Water	SM 5540C	

Analysis Batch: 370444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total/NA	Water	SM 2320B	
440-166509-2	MW-4-20161118	Total/NA	Water	SM 2320B	
440-166509-4	SW-2-20161118	Total/NA	Water	SM 2320B	
MB 440-370444/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-370444/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-166208-A-1 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 370551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-6	MW-30-20161118	Total/NA	Water	SM 2320B	
MB 440-370551/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 440-370551/2	Lab Control Sample	Total/NA	Water	SM 2320B	
440-166509-6 DU	MW-30-20161118	Total/NA	Water	SM 2320B	

Analysis Batch: 370603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total/NA	Water	SM 2510B	

General Chemistry (Continued)

Analysis Batch: 370603 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-2	MW-4-20161118	Total/NA	Water	SM 2510B	
440-166509-4	SW-2-20161118	Total/NA	Water	SM 2510B	
440-166509-6	MW-30-20161118	Total/NA	Water	SM 2510B	
MB 440-370603/3	Method Blank	Total/NA	Water	SM 2510B	
LCS 440-370603/4	Lab Control Sample	Total/NA	Water	SM 2510B	
440-166509-1 DU	MW-3-20161118	Total/NA	Water	SM 2510B	

Analysis Batch: 370611

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total/NA	Water	SM 4500 F C	
440-166509-2	MW-4-20161118	Total/NA	Water	SM 4500 F C	
440-166509-4	SW-2-20161118	Total/NA	Water	SM 4500 F C	
440-166509-6	MW-30-20161118	Total/NA	Water	SM 4500 F C	
MB 440-370611/10	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 440-370611/9	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MRL 440-370611/11	Lab Control Sample	Total/NA	Water	SM 4500 F C	
440-165760-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
440-165760-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 370916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total/NA	Water	SM 2540C	
440-166509-2	MW-4-20161118	Total/NA	Water	SM 2540C	
440-166509-3	SW-1-20161118	Total/NA	Water	SM 2540C	
440-166509-4	SW-2-20161118	Total/NA	Water	SM 2540C	
440-166509-6	MW-30-20161118	Total/NA	Water	SM 2540C	
MB 440-370916/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 440-370916/2	Lab Control Sample	Total/NA	Water	SM 2540C	
440-166006-I-7 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 371602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-166509-1	MW-3-20161118	Total/NA	Water	SM 4500 H+ B	
440-166509-2	MW-4-20161118	Total/NA	Water	SM 4500 H+ B	
440-166509-3	SW-1-20161118	Total/NA	Water	SM 4500 H+ B	
440-166509-4	SW-2-20161118	Total/NA	Water	SM 4500 H+ B	
440-166509-6	MW-30-20161118	Total/NA	Water	SM 4500 H+ B	
440-166205-A-1 DU	Duplicate	Total/NA	Water	SM 4500 H+ B	

Definitions/Glossary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-166509-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
*	LCS or LCSD is outside acceptance limits.

General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-166509-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 16-001r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Rachel Prohoroff	Date: 11/18/2016	COC No:
Langan Engineering and Environmental Services	Tel/Fax: 949-255-8643	Lab Contact: Camille Murray	Carrier:	___1___ of ___1___ COCs
32 Executive Park	Analysis Turnaround Time			For Lab Use Only:
Irvine, CA 92614	Calendar (C) or Work Days (W) __W_____			Walk-in Client:
(949) 255-8640 Phone	TAT if different from Below _____			Lab Sampling:
(949) 255-8641 FAX	☐ 2 weeks			
Project Name: Riverside Cement Plant	☑ 1 week			Job / SDG No.:
Site: 1500 Rubidoux Boulevard	☐ 2 days			
P O # 700045401	☐ 1 day			Sampler:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample (Y / N)	Composite = C / Grab = G	Title 22 Metals (field-filtered)	Title 22 Metals (unfiltered)	Hexavalent Chromium (field-filte	Hexavalent Chromium (unfiltered	pH	Total Dissolved Solids	VOCs (EPA 8260)	General Minerals	Sample Specific Notes:
MW-3-20161118	11/18/2016	~~1245~~ 1020 MS	Water	GW	8	Y		X	X	X	X	X	X	X	X	48-hour TAT
MW-4-20161118	11/18/2016	1020	Water	GW	8	Y		X	X	X	X	X	X	X	X	48-hour TAT
SW-1-20161118	11/18/2016	1210	Water	SW	5	Y		X	X	X	X	X	X			
SW-2-20161118	11/18/2016	1340	Water	SW	5	Y		X	X	X	X	X	X		X	
~~SW-3-20161118~~	~~11/18/2016~~		~~Water~~	~~SW~~	~~5~~	~~Y~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~			
~~SW-4-20161118~~	~~11/18/2016~~		~~Water~~	~~SW~~	~~5~~	~~Y~~		~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~			
TB-1-20161118	11/18/2016	1600	Water	Water	3	N								X		
MW-30-20161118	11/18/2016	1246	Water	GW	8	Y		X	X	X	X	X	X	X	X	48-hour TAT

440-166509 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other __1, 2, 4_____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

IR 78 4.9/4.9°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	Langan	11-18-16 1530			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA-I	Date/Time: 11/18/16 1530

Form No. CA-C-WI-002, Rev. 4, dated 10/25/2012

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Srvcs

Job Number: 440-166509-1

Login Number: 166509
List Number: 1
Creator: Avila, Stephanie 1

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-168978-1
Client Project/Site: Soils/Groundwater

For:
Langan Engineering & Environmental Srvcs
32 Executive Park
Suite 130
Irvine, California 92614

Attn: Drew Lassen

Authorized for release by:
12/20/2016 5:19:55 PM
Patty Mata, Senior Project Manager
patty.mata@testamericainc.com

Designee for

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 15
Lab Chronicle 16
QC Sample Results 19
QC Association Summary 32
Definitions/Glossary 36
Certification Summary 37
Chain of Custody 38
Receipt Checklists 39

Sample Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-168978-1	MW-3-20161212	Water	12/12/16 14:25	12/12/16 18:30
440-168978-2	MW-4-20161212	Water	12/12/16 16:55	12/12/16 18:30
440-168978-3	MW-40-20161212	Water	12/12/16 16:57	12/12/16 18:30
440-168978-4	SW-1-20161212	Water	12/12/16 08:40	12/12/16 18:30
440-168978-5	SW-2-20161212	Water	12/12/16 08:10	12/12/16 18:30

Job ID: 440-168978-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-168978-1

Comments
No additional comments.

Receipt
The samples were received on 12/12/2016 6:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.8º C.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
Method(s) 7199: The following samples were analyzed outside of 24-hour analytical holding time due to laboratory oversight: SW-1-20161212 (440-168978-4) and SW-2-20161212 (440-168978-5). The samples were originally analyzed by EPA method 7196 within hold time, but with higher detection limits. The results from both methods are reported for the two affected samples.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 6010B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 440-376367. The laboratory control sample was performed in duplicate to provide precision data.

Method(s) 6010B: The continuing calibration blank (CCB) for analytical batch 440-376586 contained Selenium above the reporting limit (RL). The following sample associated with this CCB was ND for this analyte; therefore, re-analysis of samples was not performed: MW-4-20161212 (440-168978-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

Client Sample ID: MW-3-20161212
Date Collected: 12/12/16 14:25
Date Received: 12/12/16 18:30

Lab Sample ID: 440-168978-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			12/15/16 04:44	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/15/16 04:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/15/16 04:44	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/15/16 04:44	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/15/16 04:44	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Benzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Bromobenzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Bromoform	ND		1.0	0.40	ug/L			12/15/16 04:44	1
Bromomethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Chloroethane	ND		1.0	0.40	ug/L			12/15/16 04:44	1
Chloroform	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Chloromethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Dibromomethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/15/16 04:44	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Isopropylbenzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/15/16 04:44	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/15/16 04:44	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Naphthalene	ND		1.0	0.40	ug/L			12/15/16 04:44	1
n-Butylbenzene	ND		1.0	0.40	ug/L			12/15/16 04:44	1
N-Propylbenzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
o-Xylene	ND		0.50	0.25	ug/L			12/15/16 04:44	1

Client Sample ID: MW-3-20161212
Date Collected: 12/12/16 14:25
Date Received: 12/12/16 18:30

Lab Sample ID: 440-168978-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Styrene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			12/15/16 04:44	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			12/15/16 04:44	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Toluene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Trichloroethene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Xylenes, Total	ND		1.0	0.50	ug/L			12/15/16 04:44	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/15/16 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*		*12/15/16 04:44*	*1*
Dibromofluoromethane (Surr)	*114*		*76 - 132*		*12/15/16 04:44*	*1*
Toluene-d8 (Surr)	*111*		*80 - 128*		*12/15/16 04:44*	*1*

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**19**		2.0	0.25	ug/L			12/13/16 09:38	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		12/15/16 13:13	12/16/16 07:25	1
Arsenic	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:25	1
Barium	**0.11**		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 09:16	1
Beryllium	ND		0.0020	0.0010	mg/L		12/15/16 13:13	12/16/16 07:25	1
Cadmium	ND		0.0050	0.0020	mg/L		12/15/16 13:13	12/16/16 07:25	1
Chromium	**0.029**		0.0050	0.0025	mg/L		12/15/16 13:13	12/16/16 07:25	1
Cobalt	ND		0.010	0.0025	mg/L		12/15/16 13:13	12/16/16 07:25	1
Copper	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:25	1
Lead	ND		0.0050	0.0025	mg/L		12/15/16 13:13	12/16/16 07:25	1
Molybdenum	ND		0.020	0.010	mg/L		12/15/16 13:13	12/16/16 07:25	1
Nickel	**0.0058**	**J**	0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:25	1
Selenium	ND		0.010	0.0061	mg/L		12/15/16 13:13	12/16/16 09:16	1
Thallium	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:25	1
Vanadium	**0.0050**	**J**	0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:25	1
Zinc	ND		0.020	0.010	mg/L		12/15/16 13:13	12/16/16 09:16	1
Silver	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:25	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		12/16/16 14:16	12/17/16 19:35	1
Arsenic	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:35	1
Barium	**0.097**		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:35	1

Client Sample ID: MW-3-20161212

Lab Sample ID: 440-168978-1

Date Collected: 12/12/16 14:25

Matrix: Water

Date Received: 12/12/16 18:30

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0020	0.0010	mg/L		12/16/16 14:16	12/17/16 19:35	1
Cadmium	ND		0.0050	0.0020	mg/L		12/16/16 14:16	12/17/16 19:35	1
Chromium	**0.017**		0.0050	0.0025	mg/L		12/16/16 14:16	12/17/16 19:35	1
Cobalt	ND		0.010	0.0025	mg/L		12/16/16 14:16	12/17/16 19:35	1
Copper	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:35	1
Lead	ND		0.0050	0.0025	mg/L		12/16/16 14:16	12/17/16 19:35	1
Molybdenum	ND		0.020	0.010	mg/L		12/16/16 14:16	12/17/16 19:35	1
Nickel	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:35	1
Selenium	ND		0.010	0.0061	mg/L		12/16/16 14:16	12/19/16 15:31	1
Thallium	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:35	1
Vanadium	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:35	1
Zinc	ND		0.020	0.010	mg/L		12/16/16 14:16	12/17/16 19:35	1
Silver	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:35	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		12/13/16 11:26	12/14/16 02:17	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		12/16/16 11:34	12/16/16 19:52	1

Client Sample ID: MW-4-20161212

Lab Sample ID: 440-168978-2

Date Collected: 12/12/16 16:55

Matrix: Water

Date Received: 12/12/16 18:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			12/15/16 05:11	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/15/16 05:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/15/16 05:11	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/15/16 05:11	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/15/16 05:11	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			12/15/16 05:11	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

Client Sample ID: MW-4-20161212
Date Collected: 12/12/16 16:55
Date Received: 12/12/16 18:30

Lab Sample ID: 440-168978-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Bromobenzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Bromoform	ND		1.0	0.40	ug/L			12/15/16 05:11	1
Bromomethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Chloroethane	ND		1.0	0.40	ug/L			12/15/16 05:11	1
Chloroform	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Chloromethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Dibromomethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/15/16 05:11	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Isopropylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/15/16 05:11	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/15/16 05:11	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Naphthalene	ND		1.0	0.40	ug/L			12/15/16 05:11	1
n-Butylbenzene	ND		1.0	0.40	ug/L			12/15/16 05:11	1
N-Propylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
o-Xylene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Styrene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			12/15/16 05:11	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			12/15/16 05:11	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Toluene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Trichloroethene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Xylenes, Total	ND		1.0	0.50	ug/L			12/15/16 05:11	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*12/15/16 05:11*	*1*
Dibromofluoromethane (Surr)	*115*		*76 - 132*		*12/15/16 05:11*	*1*
Toluene-d8 (Surr)	*111*		*80 - 128*		*12/15/16 05:11*	*1*

Client Sample ID: MW-4-20161212
Date Collected: 12/12/16 16:55
Date Received: 12/12/16 18:30

Lab Sample ID: 440-168978-2
Matrix: Water

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	1.2	J	2.0	0.25	ug/L			12/13/16 09:51	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		12/15/16 13:13	12/16/16 07:28	1
Arsenic	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:28	1
Barium	0.067		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 09:18	1
Beryllium	ND		0.0020	0.0010	mg/L		12/15/16 13:13	12/16/16 07:28	1
Cadmium	ND		0.0050	0.0020	mg/L		12/15/16 13:13	12/16/16 07:28	1
Chromium	ND		0.0050	0.0025	mg/L		12/15/16 13:13	12/16/16 07:28	1
Cobalt	ND		0.010	0.0025	mg/L		12/15/16 13:13	12/16/16 07:28	1
Copper	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:28	1
Lead	ND		0.0050	0.0025	mg/L		12/15/16 13:13	12/16/16 07:28	1
Molybdenum	ND		0.020	0.010	mg/L		12/15/16 13:13	12/16/16 07:28	1
Nickel	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:28	1
Selenium	ND		0.010	0.0061	mg/L		12/15/16 13:13	12/16/16 09:18	1
Thallium	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:28	1
Vanadium	0.0093	J	0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:28	1
Zinc	ND		0.020	0.010	mg/L		12/15/16 13:13	12/16/16 09:18	1
Silver	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:28	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		12/16/16 14:16	12/17/16 19:37	1
Arsenic	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:37	1
Barium	0.058		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:37	1
Beryllium	ND		0.0020	0.0010	mg/L		12/16/16 14:16	12/17/16 19:37	1
Cadmium	ND		0.0050	0.0020	mg/L		12/16/16 14:16	12/17/16 19:37	1
Chromium	ND		0.0050	0.0025	mg/L		12/16/16 14:16	12/17/16 19:37	1
Cobalt	ND		0.010	0.0025	mg/L		12/16/16 14:16	12/17/16 19:37	1
Copper	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:37	1
Lead	ND		0.0050	0.0025	mg/L		12/16/16 14:16	12/17/16 19:37	1
Molybdenum	ND		0.020	0.010	mg/L		12/16/16 14:16	12/17/16 19:37	1
Nickel	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:37	1
Selenium	ND		0.010	0.0061	mg/L		12/16/16 14:16	12/17/16 19:37	1
Thallium	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:37	1
Vanadium	0.0079	J	0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:37	1
Zinc	ND		0.020	0.010	mg/L		12/16/16 14:16	12/17/16 19:37	1
Silver	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:37	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		12/13/16 11:26	12/14/16 02:25	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		12/16/16 11:34	12/16/16 20:02	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

Client Sample ID: MW-40-20161212
Date Collected: 12/12/16 16:57
Date Received: 12/12/16 18:30

Lab Sample ID: 440-168978-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			12/15/16 05:39	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/15/16 05:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/15/16 05:39	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/15/16 05:39	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/15/16 05:39	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Benzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Bromobenzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Bromoform	ND		1.0	0.40	ug/L			12/15/16 05:39	1
Bromomethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Chloroethane	ND		1.0	0.40	ug/L			12/15/16 05:39	1
Chloroform	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Chloromethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Dibromomethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/15/16 05:39	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Isopropylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/15/16 05:39	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/15/16 05:39	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Naphthalene	ND		1.0	0.40	ug/L			12/15/16 05:39	1
n-Butylbenzene	ND		1.0	0.40	ug/L			12/15/16 05:39	1
N-Propylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
o-Xylene	ND		0.50	0.25	ug/L			12/15/16 05:39	1

Client Sample ID: MW-40-20161212

Date Collected: 12/12/16 16:57
Date Received: 12/12/16 18:30

Lab Sample ID: 440-168978-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Styrene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			12/15/16 05:39	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			12/15/16 05:39	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Toluene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Trichloroethene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Xylenes, Total	ND		1.0	0.50	ug/L			12/15/16 05:39	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/15/16 05:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*		*12/15/16 05:39*	*1*
Dibromofluoromethane (Surr)	*117*		*76 - 132*		*12/15/16 05:39*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*12/15/16 05:39*	*1*

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**1.2**	**J**	2.0	0.25	ug/L			12/13/16 10:02	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		12/15/16 13:13	12/16/16 07:38	1
Arsenic	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:38	1
Barium	**0.067**		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 09:21	1
Beryllium	ND		0.0020	0.0010	mg/L		12/15/16 13:13	12/16/16 07:38	1
Cadmium	ND		0.0050	0.0020	mg/L		12/15/16 13:13	12/16/16 07:38	1
Chromium	ND		0.0050	0.0025	mg/L		12/15/16 13:13	12/16/16 07:38	1
Cobalt	ND		0.010	0.0025	mg/L		12/15/16 13:13	12/16/16 07:38	1
Copper	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:38	1
Lead	ND		0.0050	0.0025	mg/L		12/15/16 13:13	12/16/16 07:38	1
Molybdenum	ND		0.020	0.010	mg/L		12/15/16 13:13	12/16/16 07:38	1
Nickel	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:38	1
Selenium	ND		0.010	0.0061	mg/L		12/15/16 13:13	12/16/16 09:21	1
Thallium	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:38	1
Vanadium	**0.0086**	**J**	0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:38	1
Zinc	ND		0.020	0.010	mg/L		12/15/16 13:13	12/16/16 09:21	1
Silver	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:38	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		12/16/16 14:16	12/17/16 19:40	1
Arsenic	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:40	1
Barium	**0.055**		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:40	1

Client Sample ID: MW-40-20161212

Lab Sample ID: 440-168978-3

Date Collected: 12/12/16 16:57

Matrix: Water

Date Received: 12/12/16 18:30

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0020	0.0010	mg/L		12/16/16 14:16	12/17/16 19:40	1
Cadmium	ND		0.0050	0.0020	mg/L		12/16/16 14:16	12/17/16 19:40	1
Chromium	ND		0.0050	0.0025	mg/L		12/16/16 14:16	12/17/16 19:40	1
Cobalt	ND		0.010	0.0025	mg/L		12/16/16 14:16	12/17/16 19:40	1
Copper	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:40	1
Lead	ND		0.0050	0.0025	mg/L		12/16/16 14:16	12/17/16 19:40	1
Molybdenum	ND		0.020	0.010	mg/L		12/16/16 14:16	12/17/16 19:40	1
Nickel	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:40	1
Selenium	ND		0.010	0.0061	mg/L		12/16/16 14:16	12/19/16 15:33	1
Thallium	**0.0095**	**J B**	0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:40	1
Vanadium	**0.0081**	**J**	0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:40	1
Zinc	ND		0.020	0.010	mg/L		12/16/16 14:16	12/17/16 19:40	1
Silver	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:40	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		12/13/16 11:26	12/14/16 02:28	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		12/16/16 11:34	12/16/16 20:06	1

Client Sample ID: SW-1-20161212

Lab Sample ID: 440-168978-4

Date Collected: 12/12/16 08:40

Matrix: Water

Date Received: 12/12/16 18:30

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**6.1**	**H**	2.0	0.25	ug/L			12/13/16 10:14	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		12/15/16 13:13	12/16/16 07:40	1
Arsenic	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:40	1
Barium	**0.062**		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 09:23	1
Beryllium	ND		0.0020	0.0010	mg/L		12/15/16 13:13	12/16/16 07:40	1
Cadmium	ND		0.0050	0.0020	mg/L		12/15/16 13:13	12/16/16 07:40	1
Chromium	**0.0061**		0.0050	0.0025	mg/L		12/15/16 13:13	12/16/16 07:40	1
Cobalt	ND		0.010	0.0025	mg/L		12/15/16 13:13	12/16/16 07:40	1
Copper	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:40	1
Lead	ND		0.0050	0.0025	mg/L		12/15/16 13:13	12/16/16 07:40	1
Molybdenum	**0.015**	**J**	0.020	0.010	mg/L		12/15/16 13:13	12/16/16 07:40	1
Nickel	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:40	1
Selenium	**0.0078**	**J**	0.010	0.0061	mg/L		12/15/16 13:13	12/16/16 09:23	1
Thallium	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:40	1
Vanadium	**0.0073**	**J**	0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:40	1
Zinc	ND		0.020	0.010	mg/L		12/15/16 13:13	12/16/16 09:23	1
Silver	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:40	1

Client Sample ID: SW-1-20161212

Lab Sample ID: 440-168978-4

Date Collected: 12/12/16 08:40

Matrix: Water

Date Received: 12/12/16 18:30

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		12/16/16 14:16	12/17/16 19:42	1
Arsenic	**0.0056**	**J**	0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:42	1
Barium	**0.058**		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:42	1
Beryllium	ND		0.0020	0.0010	mg/L		12/16/16 14:16	12/17/16 19:42	1
Cadmium	ND		0.0050	0.0020	mg/L		12/16/16 14:16	12/17/16 19:42	1
Chromium	**0.0061**		0.0050	0.0025	mg/L		12/16/16 14:16	12/17/16 19:42	1
Cobalt	ND		0.010	0.0025	mg/L		12/16/16 14:16	12/17/16 19:42	1
Copper	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:42	1
Lead	ND		0.0050	0.0025	mg/L		12/16/16 14:16	12/17/16 19:42	1
Molybdenum	**0.015**	**J**	0.020	0.010	mg/L		12/16/16 14:16	12/17/16 19:42	1
Nickel	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:42	1
Selenium	ND		0.010	0.0061	mg/L		12/16/16 14:16	12/19/16 15:36	1
Thallium	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:42	1
Vanadium	**0.0072**	**J**	0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:42	1
Zinc	ND		0.020	0.010	mg/L		12/16/16 14:16	12/17/16 19:42	1
Silver	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		12/13/16 11:26	12/14/16 02:30	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		12/16/16 11:34	12/16/16 20:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.025	0.0050	mg/L			12/13/16 01:16	1

Client Sample ID: SW-2-20161212

Lab Sample ID: 440-168978-5

Date Collected: 12/12/16 08:10

Matrix: Water

Date Received: 12/12/16 18:30

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**6.2**	**H**	2.0	0.25	ug/L			12/13/16 10:26	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		12/15/16 13:13	12/16/16 07:42	1
Arsenic	**0.0071**	**J**	0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:42	1
Barium	**0.061**		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 09:26	1
Beryllium	ND		0.0020	0.0010	mg/L		12/15/16 13:13	12/16/16 07:42	1
Cadmium	ND		0.0050	0.0020	mg/L		12/15/16 13:13	12/16/16 07:42	1
Chromium	**0.0060**		0.0050	0.0025	mg/L		12/15/16 13:13	12/16/16 07:42	1
Cobalt	ND		0.010	0.0025	mg/L		12/15/16 13:13	12/16/16 07:42	1
Copper	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:42	1
Lead	ND		0.0050	0.0025	mg/L		12/15/16 13:13	12/16/16 07:42	1
Molybdenum	**0.015**	**J**	0.020	0.010	mg/L		12/15/16 13:13	12/16/16 07:42	1
Nickel	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:42	1
Selenium	ND		0.010	0.0061	mg/L		12/15/16 13:13	12/16/16 09:26	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

Client Sample ID: SW-2-20161212
Date Collected: 12/12/16 08:10
Date Received: 12/12/16 18:30

Lab Sample ID: 440-168978-5
Matrix: Water

Method: 6010B - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:42	1
Vanadium	**0.0072**	**J**	0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:42	1
Zinc	ND		0.020	0.010	mg/L		12/15/16 13:13	12/16/16 09:26	1
Silver	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:42	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		12/16/16 14:16	12/17/16 19:45	1
Arsenic	**0.0086**	**J**	0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:45	1
Barium	**0.056**		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:45	1
Beryllium	ND		0.0020	0.0010	mg/L		12/16/16 14:16	12/17/16 19:45	1
Cadmium	ND		0.0050	0.0020	mg/L		12/16/16 14:16	12/17/16 19:45	1
Chromium	**0.0055**		0.0050	0.0025	mg/L		12/16/16 14:16	12/17/16 19:45	1
Cobalt	ND		0.010	0.0025	mg/L		12/16/16 14:16	12/17/16 19:45	1
Copper	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:45	1
Lead	ND		0.0050	0.0025	mg/L		12/16/16 14:16	12/17/16 19:45	1
Molybdenum	**0.015**	**J**	0.020	0.010	mg/L		12/16/16 14:16	12/17/16 19:45	1
Nickel	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:45	1
Selenium	ND		0.010	0.0061	mg/L		12/16/16 14:16	12/19/16 15:38	1
Thallium	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:45	1
Vanadium	**0.0059**	**J**	0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:45	1
Zinc	ND		0.020	0.010	mg/L		12/16/16 14:16	12/17/16 19:45	1
Silver	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		12/13/16 11:26	12/14/16 02:33	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		12/16/16 11:34	12/16/16 20:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.025	0.0050	mg/L			12/13/16 01:16	1

Method Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
7199	Chromium, Hexavalent (IC)	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
7470A	Mercury (CVAA)	SW846	TAL IRV
7196A	Chromium, Hexavalent	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client Sample ID: MW-3-20161212

Lab Sample ID: 440-168978-1

Date Collected: 12/12/16 14:25

Matrix: Water

Date Received: 12/12/16 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	375859	12/15/16 04:44	WC	TAL IRV
Total/NA	Analysis	7199		1			375352	12/13/16 09:38	MN	TAL IRV
Total/NA	Analysis	7199		1			375352	12/13/16 10:37	MN	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	376367	12/16/16 14:16	IH1	TAL IRV
Dissolved	Analysis	6010B		1			376586	12/17/16 19:35	K1E	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	376367	12/16/16 14:16	IH1	TAL IRV
Dissolved	Analysis	6010B		1			376838	12/19/16 15:31	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	376072	12/15/16 13:13	K1E	TAL IRV
Total Recoverable	Analysis	6010B		1			376261	12/16/16 07:25	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	376072	12/15/16 13:13	K1E	TAL IRV
Total Recoverable	Analysis	6010B		1			376320	12/16/16 09:16	EN	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	376311	12/16/16 11:34	DB	TAL IRV
Dissolved	Analysis	7470A		1			376908	12/16/16 19:52	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	375427	12/13/16 11:26	DB	TAL IRV
Total/NA	Analysis	7470A		1			375758	12/14/16 02:17	DB	TAL IRV

Client Sample ID: MW-4-20161212

Lab Sample ID: 440-168978-2

Date Collected: 12/12/16 16:55

Matrix: Water

Date Received: 12/12/16 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	375859	12/15/16 05:11	WC	TAL IRV
Total/NA	Analysis	7199		1			375352	12/13/16 09:51	MN	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	376367	12/16/16 14:16	IH1	TAL IRV
Dissolved	Analysis	6010B		1			376586	12/17/16 19:37	K1E	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	376072	12/15/16 13:13	K1E	TAL IRV
Total Recoverable	Analysis	6010B		1			376261	12/16/16 07:28	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	376072	12/15/16 13:13	K1E	TAL IRV
Total Recoverable	Analysis	6010B		1			376320	12/16/16 09:18	EN	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	376311	12/16/16 11:34	DB	TAL IRV
Dissolved	Analysis	7470A		1			376908	12/16/16 20:02	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	375427	12/13/16 11:26	DB	TAL IRV
Total/NA	Analysis	7470A		1			375758	12/14/16 02:25	DB	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

Client Sample ID: MW-40-20161212

Lab Sample ID: 440-168978-3

Date Collected: 12/12/16 16:57
Date Received: 12/12/16 18:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	375859	12/15/16 05:39	WC	TAL IRV
Total/NA	Analysis	7199		1			375352	12/13/16 10:02	MN	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	376367	12/16/16 14:16	IH1	TAL IRV
Dissolved	Analysis	6010B		1			376586	12/17/16 19:40	K1E	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	376367	12/16/16 14:16	IH1	TAL IRV
Dissolved	Analysis	6010B		1			376838	12/19/16 15:33	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	376072	12/15/16 13:13	K1E	TAL IRV
Total Recoverable	Analysis	6010B		1			376261	12/16/16 07:38	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	376072	12/15/16 13:13	K1E	TAL IRV
Total Recoverable	Analysis	6010B		1			376320	12/16/16 09:21	EN	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	376311	12/16/16 11:34	DB	TAL IRV
Dissolved	Analysis	7470A		1			376908	12/16/16 20:06	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	375427	12/13/16 11:26	DB	TAL IRV
Total/NA	Analysis	7470A		1			375758	12/14/16 02:28	DB	TAL IRV

Client Sample ID: SW-1-20161212

Lab Sample ID: 440-168978-4

Date Collected: 12/12/16 08:40
Date Received: 12/12/16 18:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7199		1			375352	12/13/16 10:14	MN	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	376367	12/16/16 14:16	IH1	TAL IRV
Dissolved	Analysis	6010B		1			376586	12/17/16 19:42	K1E	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	376367	12/16/16 14:16	IH1	TAL IRV
Dissolved	Analysis	6010B		1			376838	12/19/16 15:36	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	376072	12/15/16 13:13	K1E	TAL IRV
Total Recoverable	Analysis	6010B		1			376261	12/16/16 07:40	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	376072	12/15/16 13:13	K1E	TAL IRV
Total Recoverable	Analysis	6010B		1			376320	12/16/16 09:23	EN	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	376311	12/16/16 11:34	DB	TAL IRV
Dissolved	Analysis	7470A		1			376908	12/16/16 20:09	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	375427	12/13/16 11:26	DB	TAL IRV
Total/NA	Analysis	7470A		1			375758	12/14/16 02:30	DB	TAL IRV
Total/NA	Analysis	7196A		1	10 mL	10 mL	375333	12/13/16 01:16	RW	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

Client Sample ID: SW-2-20161212
Date Collected: 12/12/16 08:10
Date Received: 12/12/16 18:30

Lab Sample ID: 440-168978-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7199		1			375352	12/13/16 10:26	MN	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	376367	12/16/16 14:16	IH1	TAL IRV
Dissolved	Analysis	6010B		1			376586	12/17/16 19:45	K1E	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	376367	12/16/16 14:16	IH1	TAL IRV
Dissolved	Analysis	6010B		1			376838	12/19/16 15:38	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	376072	12/15/16 13:13	K1E	TAL IRV
Total Recoverable	Analysis	6010B		1			376261	12/16/16 07:42	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	376072	12/15/16 13:13	K1E	TAL IRV
Total Recoverable	Analysis	6010B		1			376320	12/16/16 09:26	EN	TAL IRV
Dissolved	Filtration	FILTRATION			150 mL	150 mL	376076	12/15/16 13:17	K1E	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	376311	12/16/16 11:34	DB	TAL IRV
Dissolved	Analysis	7470A		1			376908	12/16/16 20:13	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	375427	12/13/16 11:26	DB	TAL IRV
Total/NA	Analysis	7470A		1			375758	12/14/16 02:33	DB	TAL IRV
Total/NA	Analysis	7196A		1	10 mL	10 mL	375333	12/13/16 01:16	RW	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-375859/4
Matrix: Water
Analysis Batch: 375859

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,1,1-Trichloroethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,1,2-Trichloroethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,1-Dichloroethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,1-Dichloroethene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,1-Dichloropropene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.40	ug/L			12/14/16 20:16	1
1,2,3-Trichloropropane	ND		1.0	0.40	ug/L			12/14/16 20:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.40	ug/L			12/14/16 20:16	1
1,2,4-Trimethylbenzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.50	ug/L			12/14/16 20:16	1
1,2-Dibromoethane (EDB)	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,2-Dichlorobenzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,2-Dichloroethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,2-Dichloropropane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,3-Dichlorobenzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,3-Dichloropropane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
1,4-Dichlorobenzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
2,2-Dichloropropane	ND		1.0	0.40	ug/L			12/14/16 20:16	1
2-Chlorotoluene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
4-Chlorotoluene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Benzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Bromobenzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Bromochloromethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Bromodichloromethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Bromoform	ND		1.0	0.40	ug/L			12/14/16 20:16	1
Bromomethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Carbon tetrachloride	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Chlorobenzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Chloroethane	ND		1.0	0.40	ug/L			12/14/16 20:16	1
Chloroform	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Chloromethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
cis-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
cis-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Dibromochloromethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Dibromomethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Dichlorodifluoromethane	ND		1.0	0.40	ug/L			12/14/16 20:16	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Hexachlorobutadiene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Isopropylbenzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
m,p-Xylene	ND		1.0	0.50	ug/L			12/14/16 20:16	1
Methylene Chloride	ND		2.0	0.88	ug/L			12/14/16 20:16	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Naphthalene	ND		1.0	0.40	ug/L			12/14/16 20:16	1
n-Butylbenzene	ND		1.0	0.40	ug/L			12/14/16 20:16	1
N-Propylbenzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-375859/4
Matrix: Water
Analysis Batch: 375859

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
p-Isopropyltoluene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Styrene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.25	ug/L			12/14/16 20:16	1
tert-Butyl alcohol (TBA)	ND		10	5.0	ug/L			12/14/16 20:16	1
tert-Butylbenzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Tetrachloroethene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Toluene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
trans-1,2-Dichloroethene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
trans-1,3-Dichloropropene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Trichloroethene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Trichlorofluoromethane	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Vinyl chloride	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Xylenes, Total	ND		1.0	0.50	ug/L			12/14/16 20:16	1
1,3,5-Trimethylbenzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1
Ethylbenzene	ND		0.50	0.25	ug/L			12/14/16 20:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*12/14/16 20:16*	*1*
Dibromofluoromethane (Surr)	*110*		*76 - 132*		*12/14/16 20:16*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*12/14/16 20:16*	*1*

Lab Sample ID: LCS 440-375859/5
Matrix: Water
Analysis Batch: 375859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	27.8		ug/L		111	60 - 141
1,1,1-Trichloroethane	25.0	30.4		ug/L		122	70 - 130
1,1,2,2-Tetrachloroethane	25.0	26.0		ug/L		104	63 - 130
1,1,2-Trichloroethane	25.0	25.0		ug/L		100	70 - 130
1,1-Dichloroethane	25.0	26.3		ug/L		105	64 - 130
1,1-Dichloroethene	25.0	28.1		ug/L		112	70 - 130
1,1-Dichloropropene	25.0	28.5		ug/L		114	70 - 130
1,2,3-Trichlorobenzene	25.0	27.8		ug/L		111	60 - 140
1,2,3-Trichloropropane	25.0	27.9		ug/L		112	63 - 130
1,2,4-Trichlorobenzene	25.0	28.5		ug/L		114	60 - 140
1,2,4-Trimethylbenzene	25.0	29.2		ug/L		117	70 - 135
1,2-Dibromo-3-Chloropropane	25.0	31.3		ug/L		125	52 - 140
1,2-Dibromoethane (EDB)	25.0	28.0		ug/L		112	70 - 130
1,2-Dichlorobenzene	25.0	26.6		ug/L		106	70 - 130
1,2-Dichloroethane	25.0	28.8		ug/L		115	57 - 138
1,2-Dichloropropane	25.0	26.1		ug/L		104	67 - 130
1,3-Dichlorobenzene	25.0	26.9		ug/L		107	70 - 130
1,3-Dichloropropane	25.0	26.1		ug/L		104	70 - 130
1,4-Dichlorobenzene	25.0	26.7		ug/L		107	70 - 130
2,2-Dichloropropane	25.0	32.0		ug/L		128	68 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-375859/5
Matrix: Water
Analysis Batch: 375859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chlorotoluene	25.0	27.8		ug/L		111	70 - 130
4-Chlorotoluene	25.0	28.0		ug/L		112	70 - 130
Benzene	25.0	25.8		ug/L		103	68 - 130
Bromobenzene	25.0	26.8		ug/L		107	70 - 130
Bromochloromethane	25.0	26.6		ug/L		106	70 - 130
Bromodichloromethane	25.0	27.9		ug/L		112	70 - 132
Bromoform	25.0	30.6		ug/L		122	60 - 148
Bromomethane	25.0	32.5		ug/L		130	64 - 139
Carbon tetrachloride	25.0	31.7		ug/L		127	60 - 150
Chlorobenzene	25.0	25.9		ug/L		103	70 - 130
Chloroethane	25.0	31.5		ug/L		126	64 - 135
Chloroform	25.0	28.0		ug/L		112	70 - 130
Chloromethane	25.0	30.6		ug/L		122	47 - 140
cis-1,2-Dichloroethene	25.0	27.3		ug/L		109	70 - 133
cis-1,3-Dichloropropene	25.0	29.1		ug/L		116	70 - 133
Dibromochloromethane	25.0	29.3		ug/L		117	69 - 145
Dibromomethane	25.0	27.1		ug/L		108	70 - 130
Dichlorodifluoromethane	25.0	31.4		ug/L		126	29 - 150
Isopropyl Ether (DIPE)	25.0	26.6		ug/L		107	58 - 139
Ethyl-t-butyl ether (ETBE)	25.0	26.0		ug/L		104	60 - 136
Hexachlorobutadiene	25.0	30.6		ug/L		122	10 - 150
Isopropylbenzene	25.0	29.2		ug/L		117	70 - 136
m,p-Xylene	25.0	27.6		ug/L		110	70 - 130
Methylene Chloride	25.0	25.7		ug/L		103	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	26.6		ug/L		107	63 - 131
Naphthalene	25.0	29.8		ug/L		119	60 - 140
n-Butylbenzene	25.0	29.8		ug/L		119	65 - 150
N-Propylbenzene	25.0	29.6		ug/L		118	67 - 139
o-Xylene	25.0	27.2		ug/L		109	70 - 130
p-Isopropyltoluene	25.0	29.4		ug/L		118	70 - 132
sec-Butylbenzene	25.0	29.0		ug/L		116	70 - 138
Styrene	25.0	25.8		ug/L		103	70 - 134
Tert-amyl-methyl ether (TAME)	25.0	25.0		ug/L		100	57 - 139
tert-Butyl alcohol (TBA)	250	276		ug/L		110	70 - 130
tert-Butylbenzene	25.0	29.6		ug/L		119	70 - 130
Tetrachloroethene	25.0	29.1		ug/L		117	70 - 130
Toluene	25.0	27.3		ug/L		109	70 - 130
trans-1,2-Dichloroethene	25.0	28.6		ug/L		115	70 - 130
trans-1,3-Dichloropropene	25.0	29.0		ug/L		116	70 - 132
Trichloroethene	25.0	27.2		ug/L		109	70 - 130
Trichlorofluoromethane	25.0	30.4		ug/L		122	60 - 150
Vinyl chloride	25.0	31.3		ug/L		125	59 - 133
1,3,5-Trimethylbenzene	25.0	29.4		ug/L		118	70 - 136
Ethylbenzene	25.0	28.1		ug/L		112	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*76 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-375859/5
Matrix: Water
Analysis Batch: 375859

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	111		80 - 128

Lab Sample ID: 440-167928-F-1 MS
Matrix: Water
Analysis Batch: 375859

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	28.2		ug/L		113	60 - 149
1,1,1-Trichloroethane	ND		25.0	29.1		ug/L		116	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	25.7		ug/L		103	63 - 130
1,1,2-Trichloroethane	ND		25.0	26.3		ug/L		105	70 - 130
1,1-Dichloroethane	ND		25.0	26.3		ug/L		105	65 - 130
1,1-Dichloroethene	ND		25.0	26.3		ug/L		105	70 - 130
1,1-Dichloropropene	ND		25.0	26.5		ug/L		106	64 - 130
1,2,3-Trichlorobenzene	ND		25.0	28.0		ug/L		112	60 - 140
1,2,3-Trichloropropane	ND		25.0	26.6		ug/L		107	60 - 130
1,2,4-Trichlorobenzene	ND		25.0	29.5		ug/L		118	60 - 140
1,2,4-Trimethylbenzene	0.40	J	25.0	27.8		ug/L		109	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	28.5		ug/L		114	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	28.9		ug/L		115	70 - 131
1,2-Dichlorobenzene	ND		25.0	26.5		ug/L		106	70 - 130
1,2-Dichloroethane	ND		25.0	30.4		ug/L		121	56 - 146
1,2-Dichloropropane	ND		25.0	27.1		ug/L		108	69 - 130
1,3-Dichlorobenzene	ND		25.0	25.9		ug/L		104	70 - 130
1,3-Dichloropropane	ND		25.0	26.9		ug/L		108	70 - 130
1,4-Dichlorobenzene	ND		25.0	26.6		ug/L		106	70 - 130
2,2-Dichloropropane	ND		25.0	32.0		ug/L		128	69 - 138
2-Chlorotoluene	ND		25.0	26.1		ug/L		105	70 - 130
4-Chlorotoluene	ND		25.0	26.7		ug/L		107	70 - 130
Benzene	ND		25.0	25.9		ug/L		104	66 - 130
Bromobenzene	ND		25.0	25.5		ug/L		102	70 - 130
Bromochloromethane	ND		25.0	28.1		ug/L		112	70 - 130
Bromodichloromethane	ND		25.0	29.2		ug/L		117	70 - 138
Bromoform	ND		25.0	31.7		ug/L		127	59 - 150
Bromomethane	ND	F1	25.0	32.2		ug/L		129	62 - 131
Carbon tetrachloride	ND		25.0	30.1		ug/L		120	60 - 150
Chlorobenzene	ND		25.0	25.6		ug/L		102	70 - 130
Chloroethane	ND		25.0	29.8		ug/L		119	68 - 130
Chloroform	ND		25.0	28.5		ug/L		114	70 - 130
Chloromethane	ND		25.0	29.0		ug/L		116	39 - 144
cis-1,2-Dichloroethene	ND		25.0	27.7		ug/L		111	70 - 130
cis-1,3-Dichloropropene	ND		25.0	29.8		ug/L		119	70 - 133
Dibromochloromethane	ND		25.0	30.6		ug/L		122	70 - 148
Dibromomethane	ND		25.0	28.4		ug/L		114	70 - 130
Dichlorodifluoromethane	ND		25.0	28.6		ug/L		115	25 - 142
Isopropyl Ether (DIPE)	ND		25.0	28.7		ug/L		115	64 - 138
Ethyl-t-butyl ether (ETBE)	ND		25.0	29.6		ug/L		118	70 - 130
Hexachlorobutadiene	ND		25.0	27.6		ug/L		110	10 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-167928-F-1 MS
Matrix: Water
Analysis Batch: 375859

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Isopropylbenzene	ND		25.0	27.4		ug/L		110	70 - 132
m,p-Xylene	ND		25.0	26.6		ug/L		106	70 - 133
Methylene Chloride	ND		25.0	26.4		ug/L		106	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	29.6		ug/L		118	70 - 130
Naphthalene	ND		25.0	29.8		ug/L		119	60 - 140
n-Butylbenzene	ND		25.0	27.7		ug/L		111	61 - 149
N-Propylbenzene	ND		25.0	26.6		ug/L		106	66 - 135
o-Xylene	ND		25.0	26.7		ug/L		107	70 - 133
p-Isopropyltoluene	ND		25.0	26.8		ug/L		107	70 - 130
sec-Butylbenzene	ND		25.0	25.9		ug/L		103	67 - 134
Styrene	ND		25.0	25.8		ug/L		103	29 - 150
Tert-amyl-methyl ether (TAME)	ND		25.0	28.2		ug/L		113	68 - 133
tert-Butyl alcohol (TBA)	ND		250	273		ug/L		109	70 - 130
tert-Butylbenzene	ND		25.0	26.6		ug/L		106	70 - 130
Tetrachloroethene	ND		25.0	26.9		ug/L		107	70 - 137
Toluene	ND		25.0	26.3		ug/L		105	70 - 130
trans-1,2-Dichloroethene	ND		25.0	27.8		ug/L		111	70 - 130
trans-1,3-Dichloropropene	ND		25.0	30.3		ug/L		121	70 - 138
Trichloroethene	ND		25.0	26.6		ug/L		106	70 - 130
Trichlorofluoromethane	ND		25.0	28.3		ug/L		113	60 - 150
Vinyl chloride	ND		25.0	28.5		ug/L		114	50 - 137
1,3,5-Trimethylbenzene	ND		25.0	27.1		ug/L		108	70 - 130
Ethylbenzene	ND		25.0	26.6		ug/L		106	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*113*		*76 - 132*
Toluene-d8 (Surr)	*107*		*80 - 128*

Lab Sample ID: 440-167928-F-1 MSD
Matrix: Water
Analysis Batch: 375859

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	28.8		ug/L		115	60 - 149	2	20
1,1,1-Trichloroethane	ND		25.0	30.3		ug/L		121	70 - 130	4	20
1,1,2,2-Tetrachloroethane	ND		25.0	25.3		ug/L		101	63 - 130	2	30
1,1,2-Trichloroethane	ND		25.0	26.6		ug/L		106	70 - 130	1	25
1,1-Dichloroethane	ND		25.0	27.6		ug/L		110	65 - 130	5	20
1,1-Dichloroethene	ND		25.0	27.3		ug/L		109	70 - 130	4	20
1,1-Dichloropropene	ND		25.0	27.4		ug/L		110	64 - 130	3	20
1,2,3-Trichlorobenzene	ND		25.0	28.1		ug/L		112	60 - 140	0	20
1,2,3-Trichloropropane	ND		25.0	26.9		ug/L		107	60 - 130	1	30
1,2,4-Trichlorobenzene	ND		25.0	29.8		ug/L		119	60 - 140	1	20
1,2,4-Trimethylbenzene	0.40	J	25.0	28.5		ug/L		112	70 - 130	3	25
1,2-Dibromo-3-Chloropropane	ND		25.0	29.1		ug/L		117	48 - 140	2	30
1,2-Dibromoethane (EDB)	ND		25.0	28.6		ug/L		114	70 - 131	1	25
1,2-Dichlorobenzene	ND		25.0	27.5		ug/L		110	70 - 130	4	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-167928-F-1 MSD
Matrix: Water
Analysis Batch: 375859

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloroethane	ND		25.0	31.3		ug/L		125	56 - 146	3	20
1,2-Dichloropropane	ND		25.0	27.6		ug/L		110	69 - 130	2	20
1,3-Dichlorobenzene	ND		25.0	26.7		ug/L		107	70 - 130	3	20
1,3-Dichloropropane	ND		25.0	27.2		ug/L		109	70 - 130	1	25
1,4-Dichlorobenzene	ND		25.0	26.9		ug/L		108	70 - 130	1	20
2,2-Dichloropropane	ND		25.0	32.5		ug/L		130	69 - 138	2	25
2-Chlorotoluene	ND		25.0	26.8		ug/L		107	70 - 130	2	20
4-Chlorotoluene	ND		25.0	27.3		ug/L		109	70 - 130	2	20
Benzene	ND		25.0	26.5		ug/L		106	66 - 130	2	20
Bromobenzene	ND		25.0	26.4		ug/L		106	70 - 130	3	20
Bromochloromethane	ND		25.0	29.4		ug/L		118	70 - 130	4	25
Bromodichloromethane	ND		25.0	30.0		ug/L		120	70 - 138	3	20
Bromoform	ND		25.0	32.3		ug/L		129	59 - 150	2	25
Bromomethane	ND	F1	25.0	33.2	F1	ug/L		133	62 - 131	3	25
Carbon tetrachloride	ND		25.0	31.2		ug/L		125	60 - 150	3	25
Chlorobenzene	ND		25.0	26.3		ug/L		105	70 - 130	3	20
Chloroethane	ND		25.0	31.5		ug/L		126	68 - 130	5	25
Chloroform	ND		25.0	29.3		ug/L		117	70 - 130	3	20
Chloromethane	ND		25.0	30.7		ug/L		123	39 - 144	6	25
cis-1,2-Dichloroethene	ND		25.0	28.9		ug/L		116	70 - 130	4	20
cis-1,3-Dichloropropene	ND		25.0	30.0		ug/L		120	70 - 133	1	20
Dibromochloromethane	ND		25.0	30.7		ug/L		123	70 - 148	0	25
Dibromomethane	ND		25.0	29.1		ug/L		116	70 - 130	2	25
Dichlorodifluoromethane	ND		25.0	30.0		ug/L		120	25 - 142	5	30
Isopropyl Ether (DIPE)	ND		25.0	29.7		ug/L		119	64 - 138	4	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	30.4		ug/L		122	70 - 130	3	25
Hexachlorobutadiene	ND		25.0	28.5		ug/L		114	10 - 150	3	20
Isopropylbenzene	ND		25.0	28.4		ug/L		113	70 - 132	3	20
m,p-Xylene	ND		25.0	27.4		ug/L		109	70 - 133	3	25
Methylene Chloride	ND		25.0	26.9		ug/L		107	52 - 130	2	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	30.5		ug/L		122	70 - 130	3	25
Naphthalene	ND		25.0	30.3		ug/L		121	60 - 140	2	30
n-Butylbenzene	ND		25.0	28.4		ug/L		114	61 - 149	3	20
N-Propylbenzene	ND		25.0	27.5		ug/L		110	66 - 135	3	20
o-Xylene	ND		25.0	27.5		ug/L		110	70 - 133	3	20
p-Isopropyltoluene	ND		25.0	27.5		ug/L		110	70 - 130	3	20
sec-Butylbenzene	ND		25.0	26.7		ug/L		107	67 - 134	3	20
Styrene	ND		25.0	26.5		ug/L		106	29 - 150	3	35
Tert-amyl-methyl ether (TAME)	ND		25.0	28.8		ug/L		115	68 - 133	2	30
tert-Butyl alcohol (TBA)	ND		250	274		ug/L		110	70 - 130	0	25
tert-Butylbenzene	ND		25.0	27.2		ug/L		109	70 - 130	2	20
Tetrachloroethene	ND		25.0	27.5		ug/L		110	70 - 137	2	20
Toluene	ND		25.0	26.8		ug/L		107	70 - 130	2	20
trans-1,2-Dichloroethene	ND		25.0	28.8		ug/L		115	70 - 130	4	20
trans-1,3-Dichloropropene	ND		25.0	31.0		ug/L		124	70 - 138	2	25
Trichloroethene	ND		25.0	26.9		ug/L		108	70 - 130	1	20
Trichlorofluoromethane	ND		25.0	29.4		ug/L		118	60 - 150	4	25
Vinyl chloride	ND		25.0	30.4		ug/L		122	50 - 137	7	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-167928-F-1 MSD
Matrix: Water
Analysis Batch: 375859

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	ND		25.0	28.0		ug/L		112	70 - 130	3	20
Ethylbenzene	ND		25.0	27.4		ug/L		110	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*
Dibromofluoromethane (Surr)	*113*		*76 - 132*
Toluene-d8 (Surr)	*107*		*80 - 128*

Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: MB 440-375352/3
Matrix: Water
Analysis Batch: 375352

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		2.0	0.25	ug/L			12/13/16 07:28	1

Lab Sample ID: LCS 440-375352/2
Matrix: Water
Analysis Batch: 375352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	50.0	50.4		ug/L		101	90 - 110

Lab Sample ID: MRL 440-375352/4
Matrix: Water
Analysis Batch: 375352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	1.00	1.13	J	ug/L		113	50 - 150

Lab Sample ID: 440-168978-1 MS
Matrix: Water
Analysis Batch: 375352

Client Sample ID: MW-3-20161212
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	19		50.0	71.8		ug/L		105	85 - 115

Lab Sample ID: 440-168978-1 MSD
Matrix: Water
Analysis Batch: 375352

Client Sample ID: MW-3-20161212
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	19		50.0	71.2		ug/L		104	85 - 115	1	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-376072/1-A
Matrix: Water
Analysis Batch: 376261

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 376072

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		12/15/16 13:13	12/16/16 07:06	1
Arsenic	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:06	1
Beryllium	ND		0.0020	0.0010	mg/L		12/15/16 13:13	12/16/16 07:06	1
Cadmium	ND		0.0050	0.0020	mg/L		12/15/16 13:13	12/16/16 07:06	1
Chromium	ND		0.0050	0.0025	mg/L		12/15/16 13:13	12/16/16 07:06	1
Cobalt	ND		0.010	0.0025	mg/L		12/15/16 13:13	12/16/16 07:06	1
Copper	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:06	1
Lead	ND		0.0050	0.0025	mg/L		12/15/16 13:13	12/16/16 07:06	1
Molybdenum	ND		0.020	0.010	mg/L		12/15/16 13:13	12/16/16 07:06	1
Nickel	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:06	1
Thallium	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:06	1
Vanadium	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:06	1
Silver	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 07:06	1

Lab Sample ID: MB 440-376072/1-A
Matrix: Water
Analysis Batch: 376320

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 376072

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.010	0.0050	mg/L		12/15/16 13:13	12/16/16 08:42	1
Selenium	ND		0.010	0.0061	mg/L		12/15/16 13:13	12/16/16 08:42	1
Zinc	ND		0.020	0.010	mg/L		12/15/16 13:13	12/16/16 08:42	1

Lab Sample ID: LCS 440-376072/2-A
Matrix: Water
Analysis Batch: 376261

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 376072

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	0.987		mg/L		99	80 - 120
Arsenic	1.00	1.01		mg/L		101	80 - 120
Beryllium	1.00	1.00		mg/L		100	80 - 120
Cadmium	1.00	0.994		mg/L		99	80 - 120
Chromium	1.00	1.00		mg/L		100	80 - 120
Cobalt	1.00	0.983		mg/L		98	80 - 120
Copper	1.00	1.03		mg/L		103	80 - 120
Lead	1.00	0.983		mg/L		98	80 - 120
Molybdenum	1.00	0.967		mg/L		97	80 - 120
Nickel	1.00	1.01		mg/L		101	80 - 120
Thallium	1.00	1.02		mg/L		102	80 - 120
Vanadium	1.00	1.00		mg/L		100	80 - 120
Silver	0.500	0.482		mg/L		96	80 - 120

Lab Sample ID: LCS 440-376072/2-A
Matrix: Water
Analysis Batch: 376320

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 376072

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	1.00	1.01		mg/L		101	80 - 120
Lead	1.00	1.07		mg/L		107	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-376072/2-A
Matrix: Water
Analysis Batch: 376320

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 376072

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	1.00	0.995		mg/L		100	80 - 120
Zinc	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: 280-91781-A-1-B MS
Matrix: Water
Analysis Batch: 376261

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 376072

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND		1.00	0.975		mg/L		98	75 - 125
Arsenic	ND		1.00	1.03		mg/L		103	75 - 125
Beryllium	ND		1.00	0.993		mg/L		99	75 - 125
Cadmium	0.035		1.00	0.958		mg/L		92	75 - 125
Chromium	0.015		1.00	1.00		mg/L		99	75 - 125
Cobalt	0.0072	J	1.00	0.950		mg/L		94	75 - 125
Copper	1.9		1.00	2.84		mg/L		99	75 - 125
Lead	1.1		1.00	1.93		mg/L		87	75 - 125
Molybdenum	ND		1.00	0.930		mg/L		93	75 - 125
Nickel	0.025		1.00	0.982		mg/L		96	75 - 125
Thallium	ND		1.00	0.896		mg/L		90	75 - 125
Vanadium	ND		1.00	0.999		mg/L		100	75 - 125
Silver	ND		0.500	0.479		mg/L		96	75 - 125

Lab Sample ID: 280-91781-A-1-B MS
Matrix: Water
Analysis Batch: 376320

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 376072

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.94		1.00	1.87		mg/L		93	75 - 125
Selenium	ND		1.00	0.986		mg/L		99	75 - 125
Zinc	6.3		1.00	7.52	4	mg/L		118	75 - 125

Lab Sample ID: 280-91781-A-1-C MSD
Matrix: Water
Analysis Batch: 376261

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 376072

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		1.00	0.995		mg/L		99	75 - 125	2	20
Arsenic	ND		1.00	1.06		mg/L		106	75 - 125	2	20
Beryllium	ND		1.00	1.00		mg/L		100	75 - 125	1	20
Cadmium	0.035		1.00	0.972		mg/L		94	75 - 125	1	20
Chromium	0.015		1.00	1.02		mg/L		101	75 - 125	2	20
Cobalt	0.0072	J	1.00	0.973		mg/L		97	75 - 125	2	20
Copper	1.9		1.00	2.93		mg/L		107	75 - 125	3	20
Lead	1.1		1.00	2.00		mg/L		94	75 - 125	4	20
Molybdenum	ND		1.00	0.956		mg/L		96	75 - 125	3	20
Nickel	0.025		1.00	1.01		mg/L		98	75 - 125	2	20
Thallium	ND		1.00	0.922		mg/L		92	75 - 125	3	20
Vanadium	ND		1.00	1.01		mg/L		101	75 - 125	1	20
Silver	ND		0.500	0.488		mg/L		98	75 - 125	2	20

QC Sample Results

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

Lab Sample ID: 280-91781-A-1-C MSD
Matrix: Water
Analysis Batch: 376320

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 376072

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.94		1.00	1.86		mg/L		92	75 - 125	0	20
Selenium	ND		1.00	0.969		mg/L		97	75 - 125	2	20
Zinc	6.3		1.00	7.23	4	mg/L		89	75 - 125	4	20

Lab Sample ID: MB 440-376076/1-D
Matrix: Water
Analysis Batch: 376586

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 376367

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010	0.0060	mg/L		12/16/16 14:16	12/17/16 19:28	1
Arsenic	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:28	1
Barium	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:28	1
Beryllium	ND		0.0020	0.0010	mg/L		12/16/16 14:16	12/17/16 19:28	1
Cadmium	ND		0.0050	0.0020	mg/L		12/16/16 14:16	12/17/16 19:28	1
Chromium	ND		0.0050	0.0025	mg/L		12/16/16 14:16	12/17/16 19:28	1
Cobalt	ND		0.010	0.0025	mg/L		12/16/16 14:16	12/17/16 19:28	1
Copper	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:28	1
Lead	ND		0.0050	0.0025	mg/L		12/16/16 14:16	12/17/16 19:28	1
Molybdenum	ND		0.020	0.010	mg/L		12/16/16 14:16	12/17/16 19:28	1
Nickel	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:28	1
Selenium	0.00876	J	0.010	0.0061	mg/L		12/16/16 14:16	12/17/16 19:28	1
Thallium	0.00509	J	0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:28	1
Vanadium	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:28	1
Zinc	ND		0.020	0.010	mg/L		12/16/16 14:16	12/17/16 19:28	1
Silver	ND		0.010	0.0050	mg/L		12/16/16 14:16	12/17/16 19:28	1

Lab Sample ID: LCS 440-376076/2-D
Matrix: Water
Analysis Batch: 376586

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 376367

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	1.00	0.959		mg/L		96	80 - 120
Arsenic	1.00	0.990		mg/L		99	80 - 120
Barium	1.00	0.978		mg/L		98	80 - 120
Beryllium	1.00	0.997		mg/L		100	80 - 120
Cadmium	1.00	0.983		mg/L		98	80 - 120
Chromium	1.00	0.996		mg/L		100	80 - 120
Cobalt	1.00	0.982		mg/L		98	80 - 120
Copper	1.00	0.998		mg/L		100	80 - 120
Lead	1.00	0.971		mg/L		97	80 - 120
Molybdenum	1.00	0.954		mg/L		95	80 - 120
Nickel	1.00	0.993		mg/L		99	80 - 120
Selenium	1.00	0.965		mg/L		97	80 - 120
Thallium	1.00	0.997		mg/L		100	80 - 120
Vanadium	1.00	0.983		mg/L		98	80 - 120
Zinc	1.00	0.956		mg/L		96	80 - 120
Silver	0.500	0.471		mg/L		94	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCSD 440-376076/3-C — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 376586 — **Prep Batch: 376367**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony			1.00	0.954		mg/L		95	80 - 120	1	20
Arsenic			1.00	0.986		mg/L		99	80 - 120	0	20
Barium			1.00	0.970		mg/L		97	80 - 120	1	20
Beryllium			1.00	0.990		mg/L		99	80 - 120	1	20
Cadmium			1.00	0.979		mg/L		98	80 - 120	0	20
Chromium			1.00	0.989		mg/L		99	80 - 120	1	20
Cobalt			1.00	0.972		mg/L		97	80 - 120	1	20
Copper			1.00	0.996		mg/L		100	80 - 120	0	20
Lead			1.00	0.966		mg/L		97	80 - 120	0	20
Molybdenum			1.00	0.954		mg/L		95	80 - 120	0	20
Nickel			1.00	0.985		mg/L		99	80 - 120	1	20
Selenium			1.00	0.968		mg/L		97	80 - 120	0	20
Thallium			1.00	0.999		mg/L		100	80 - 120	0	20
Vanadium			1.00	0.979		mg/L		98	80 - 120	0	20
Zinc			1.00	0.951		mg/L		95	80 - 120	0	20
Silver			0.500	0.469		mg/L		94	80 - 120	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 440-375427/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 375758 — **Prep Batch: 375427**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		12/13/16 11:26	12/14/16 02:11	1

Lab Sample ID: LCS 440-375427/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 375758 — **Prep Batch: 375427**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00800	0.00733		mg/L		92	80 - 120		

Lab Sample ID: 440-168978-1 MS — **Client Sample ID: MW-3-20161212**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 375758 — **Prep Batch: 375427**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00800	0.00719		mg/L		90	70 - 130		

Lab Sample ID: 440-168978-1 MSD — **Client Sample ID: MW-3-20161212**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 375758 — **Prep Batch: 375427**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00800	0.00730		mg/L		91	70 - 130	1	20

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 440-376076/1-C
Matrix: Water
Analysis Batch: 376908

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 376311

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00010	mg/L		12/16/16 11:34	12/16/16 19:45	1

Lab Sample ID: LCS 440-376076/2-C
Matrix: Water
Analysis Batch: 376908

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 376311

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00800	0.00752		mg/L		94	80 - 120		

Lab Sample ID: 440-168978-1 MS
Matrix: Water
Analysis Batch: 376908

Client Sample ID: MW-3-20161212
Prep Type: Dissolved
Prep Batch: 376311

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00800	0.00763		mg/L		95	70 - 130		

Lab Sample ID: 440-168978-1 MSD
Matrix: Water
Analysis Batch: 376908

Client Sample ID: MW-3-20161212
Prep Type: Dissolved
Prep Batch: 376311

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00800	0.00767		mg/L		96	70 - 130	1	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 440-375333/8
Matrix: Water
Analysis Batch: 375333

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.025	0.0050	mg/L			12/13/16 01:16	1

Lab Sample ID: LCS 440-375333/9
Matrix: Water
Analysis Batch: 375333

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)			0.100	0.0992		mg/L		99	90 - 110		

Lab Sample ID: 440-168978-5 MS
Matrix: Water
Analysis Batch: 375333

Client Sample ID: SW-2-20161212
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)	ND		0.300	0.305		mg/L		102	85 - 115		

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 440-168978-5 MSD
Matrix: Water
Analysis Batch: 375333

Client Sample ID: SW-2-20161212
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	ND		0.300	0.314		mg/L		105	85 - 115	3	20

GC/MS VOA

Analysis Batch: 375859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Total/NA	Water	8260B	
440-168978-2	MW-4-20161212	Total/NA	Water	8260B	
440-168978-3	MW-40-20161212	Total/NA	Water	8260B	
MB 440-375859/4	Method Blank	Total/NA	Water	8260B	
LCS 440-375859/5	Lab Control Sample	Total/NA	Water	8260B	
440-167928-F-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-167928-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 375352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Total/NA	Water	7199	
440-168978-1	MW-3-20161212	Total/NA	Water	7199	
440-168978-2	MW-4-20161212	Total/NA	Water	7199	
440-168978-3	MW-40-20161212	Total/NA	Water	7199	
440-168978-4	SW-1-20161212	Total/NA	Water	7199	
440-168978-5	SW-2-20161212	Total/NA	Water	7199	
MB 440-375352/3	Method Blank	Total/NA	Water	7199	
LCS 440-375352/2	Lab Control Sample	Total/NA	Water	7199	
MRL 440-375352/4	Lab Control Sample	Total/NA	Water	7199	
440-168978-1 MS	MW-3-20161212	Total/NA	Water	7199	
440-168978-1 MSD	MW-3-20161212	Total/NA	Water	7199	

Metals

Prep Batch: 375427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Total/NA	Water	7470A	
440-168978-2	MW-4-20161212	Total/NA	Water	7470A	
440-168978-3	MW-40-20161212	Total/NA	Water	7470A	
440-168978-4	SW-1-20161212	Total/NA	Water	7470A	
440-168978-5	SW-2-20161212	Total/NA	Water	7470A	
MB 440-375427/1-A	Method Blank	Total/NA	Water	7470A	
LCS 440-375427/2-A	Lab Control Sample	Total/NA	Water	7470A	
440-168978-1 MS	MW-3-20161212	Total/NA	Water	7470A	
440-168978-1 MSD	MW-3-20161212	Total/NA	Water	7470A	

Analysis Batch: 375758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Total/NA	Water	7470A	375427
440-168978-2	MW-4-20161212	Total/NA	Water	7470A	375427
440-168978-3	MW-40-20161212	Total/NA	Water	7470A	375427
440-168978-4	SW-1-20161212	Total/NA	Water	7470A	375427
440-168978-5	SW-2-20161212	Total/NA	Water	7470A	375427
MB 440-375427/1-A	Method Blank	Total/NA	Water	7470A	375427
LCS 440-375427/2-A	Lab Control Sample	Total/NA	Water	7470A	375427
440-168978-1 MS	MW-3-20161212	Total/NA	Water	7470A	375427
440-168978-1 MSD	MW-3-20161212	Total/NA	Water	7470A	375427

Metals (Continued)

Prep Batch: 376072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Total Recoverable	Water	3005A	
440-168978-2	MW-4-20161212	Total Recoverable	Water	3005A	
440-168978-3	MW-40-20161212	Total Recoverable	Water	3005A	
440-168978-4	SW-1-20161212	Total Recoverable	Water	3005A	
440-168978-5	SW-2-20161212	Total Recoverable	Water	3005A	
MB 440-376072/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-376072/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-91781-A-1-B MS	Matrix Spike	Total Recoverable	Water	3005A	
280-91781-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Filtration Batch: 376076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Dissolved	Water	FILTRATION	
440-168978-2	MW-4-20161212	Dissolved	Water	FILTRATION	
440-168978-3	MW-40-20161212	Dissolved	Water	FILTRATION	
440-168978-4	SW-1-20161212	Dissolved	Water	FILTRATION	
440-168978-5	SW-2-20161212	Dissolved	Water	FILTRATION	
MB 440-376076/1-C	Method Blank	Dissolved	Water	FILTRATION	
MB 440-376076/1-D	Method Blank	Dissolved	Water	FILTRATION	
LCS 440-376076/2-C	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 440-376076/2-D	Lab Control Sample	Dissolved	Water	FILTRATION	
LCSD 440-376076/3-C	Lab Control Sample Dup	Dissolved	Water	FILTRATION	
440-168978-1 MS	MW-3-20161212	Dissolved	Water	FILTRATION	
440-168978-1 MSD	MW-3-20161212	Dissolved	Water	FILTRATION	

Analysis Batch: 376261

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Total Recoverable	Water	6010B	376072
440-168978-2	MW-4-20161212	Total Recoverable	Water	6010B	376072
440-168978-3	MW-40-20161212	Total Recoverable	Water	6010B	376072
440-168978-4	SW-1-20161212	Total Recoverable	Water	6010B	376072
440-168978-5	SW-2-20161212	Total Recoverable	Water	6010B	376072
MB 440-376072/1-A	Method Blank	Total Recoverable	Water	6010B	376072
LCS 440-376072/2-A	Lab Control Sample	Total Recoverable	Water	6010B	376072
280-91781-A-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	376072
280-91781-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	376072

Prep Batch: 376311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Dissolved	Water	7470A	376076
440-168978-2	MW-4-20161212	Dissolved	Water	7470A	376076
440-168978-3	MW-40-20161212	Dissolved	Water	7470A	376076
440-168978-4	SW-1-20161212	Dissolved	Water	7470A	376076
440-168978-5	SW-2-20161212	Dissolved	Water	7470A	376076
MB 440-376076/1-C	Method Blank	Dissolved	Water	7470A	376076
LCS 440-376076/2-C	Lab Control Sample	Dissolved	Water	7470A	376076
440-168978-1 MS	MW-3-20161212	Dissolved	Water	7470A	376076
440-168978-1 MSD	MW-3-20161212	Dissolved	Water	7470A	376076

Metals (Continued)

Analysis Batch: 376320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Total Recoverable	Water	6010B	376072
440-168978-2	MW-4-20161212	Total Recoverable	Water	6010B	376072
440-168978-3	MW-40-20161212	Total Recoverable	Water	6010B	376072
440-168978-4	SW-1-20161212	Total Recoverable	Water	6010B	376072
440-168978-5	SW-2-20161212	Total Recoverable	Water	6010B	376072
MB 440-376072/1-A	Method Blank	Total Recoverable	Water	6010B	376072
LCS 440-376072/2-A	Lab Control Sample	Total Recoverable	Water	6010B	376072
280-91781-A-1-B MS	Matrix Spike	Total Recoverable	Water	6010B	376072
280-91781-A-1-C MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010B	376072

Prep Batch: 376367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Dissolved	Water	3005A	376076
440-168978-2	MW-4-20161212	Dissolved	Water	3005A	376076
440-168978-3	MW-40-20161212	Dissolved	Water	3005A	376076
440-168978-4	SW-1-20161212	Dissolved	Water	3005A	376076
440-168978-5	SW-2-20161212	Dissolved	Water	3005A	376076
MB 440-376076/1-D	Method Blank	Dissolved	Water	3005A	376076
LCS 440-376076/2-D	Lab Control Sample	Dissolved	Water	3005A	376076
LCSD 440-376076/3-C	Lab Control Sample Dup	Dissolved	Water	3005A	376076

Analysis Batch: 376586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Dissolved	Water	6010B	376367
440-168978-2	MW-4-20161212	Dissolved	Water	6010B	376367
440-168978-3	MW-40-20161212	Dissolved	Water	6010B	376367
440-168978-4	SW-1-20161212	Dissolved	Water	6010B	376367
440-168978-5	SW-2-20161212	Dissolved	Water	6010B	376367
MB 440-376076/1-D	Method Blank	Dissolved	Water	6010B	376367
LCS 440-376076/2-D	Lab Control Sample	Dissolved	Water	6010B	376367
LCSD 440-376076/3-C	Lab Control Sample Dup	Dissolved	Water	6010B	376367

Analysis Batch: 376838

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Dissolved	Water	6010B	376367
440-168978-3	MW-40-20161212	Dissolved	Water	6010B	376367
440-168978-4	SW-1-20161212	Dissolved	Water	6010B	376367
440-168978-5	SW-2-20161212	Dissolved	Water	6010B	376367

Analysis Batch: 376908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-1	MW-3-20161212	Dissolved	Water	7470A	376311
440-168978-2	MW-4-20161212	Dissolved	Water	7470A	376311
440-168978-3	MW-40-20161212	Dissolved	Water	7470A	376311
440-168978-4	SW-1-20161212	Dissolved	Water	7470A	376311
440-168978-5	SW-2-20161212	Dissolved	Water	7470A	376311
MB 440-376076/1-C	Method Blank	Dissolved	Water	7470A	376311
LCS 440-376076/2-C	Lab Control Sample	Dissolved	Water	7470A	376311
440-168978-1 MS	MW-3-20161212	Dissolved	Water	7470A	376311
440-168978-1 MSD	MW-3-20161212	Dissolved	Water	7470A	376311

QC Association Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

General Chemistry

Analysis Batch: 375333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168978-4	SW-1-20161212	Total/NA	Water	7196A	
440-168978-5	SW-2-20161212	Total/NA	Water	7196A	
MB 440-375333/8	Method Blank	Total/NA	Water	7196A	
LCS 440-375333/9	Lab Control Sample	Total/NA	Water	7196A	
440-168978-5 MS	SW-2-20161212	Total/NA	Water	7196A	
440-168978-5 MSD	SW-2-20161212	Total/NA	Water	7196A	

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
H	Sample was prepped or analyzed beyond the specified holding time

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Soils/Groundwater

TestAmerica Job ID: 440-168978-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 16-001r	01-23-17 *
Hawaii	State Program	9	N/A	01-29-17 *
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-17 *
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Ave Suite 100
Irvine, CA 92614-5817
Phone (949) 261-1022 Fax (949) 260-3297

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: R.Prohoroff/M.Thomas	Lab PM: Murray, Camille L	Carrier Tracking No(s):	COC No: 440-110551-19886.1
Client Contact: ~~Drew Leesen~~ Neil Shukla / Rachel Prohoroff	Phone: 949-255-8668	E-Mail: camille.murray@testamericainc.com		Page: Page 1 of 1
Company: Langan Engineering & Environmental Srvcs				Job #:
Address: 32 Executive Park Suite 130	Due Date Requested: 12/19/16			
City: Irvine	TAT Requested (days): 5 days			
State, Zip: CA, 92614				
Phone: 949-255-8640	PO #: ~~700045401~~ 721010301			
Email: ~~dlassen@langan.com~~ rprohoroff@langan.com nshukla@langan.com	WO #:			
Project Name: Soils/Groundwater	Project #: 44009948			
Site: 1500 Rubidoux Boulevard	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Special Instructions/Note: Report all compounds at a 1x or lowest possible dilution; J-flag results

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	~~TPH-Diesel~~ 7199 Cr(VI)	6010B - California Administrative Manual List-Me Lab-filtered	6010B - CAM Metals (unfiltered)	VOCs (8260B)	Total Number of containers	Special Instructions/Note
			Preservation Code:				N	D				
MW-3-20161212	12/12/16	1425	~~Groundwater~~	Water							5	Lab to filter for CAM Metals
MW-4-20161212	12/12/16	1655	~~Groundwater~~	Water							5	"
MW-40-20161212	12/12/16	1657	~~Groundwater~~	Water							5	"
SW-1-12122016	12/12/16	0840	Surface Water	Water							"	"
SW-2-12122016	12/12/16	0810	~~Surface Water~~	Water							"	"
				Water								
				Water								

12/12/16

440-168978 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: Rachel Prohoroff	Date/Time: 12/12/16 18:30	Company	Received by:		Date/Time:		Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:		Company
Relinquished by:	Date/Time:	Company	Received by:		Date/Time: 12/12/16 1800		Company TA-I

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: 5.8/5.8 IR78

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Srvcs

Job Number: 440-168978-1

Login Number: 168978

List Source: TestAmerica Irvine

List Number: 1

Creator: Escalante, Maria I

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-169295-1
Client Project/Site: Riverside Cement Plant

For:
Langan Engineering & Environmental Srvcs
32 Executive Park
Suite 130
Irvine, California 92614

Attn: Drew Lassen

Authorized for release by:
12/22/2016 10:44:13 PM
Urvashi Patel, Manager of Project Management
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Designee for

Camille Murray, Project Manager I
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LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 12
Lab Chronicle 13
QC Sample Results 14
QC Association Summary 42
Definitions/Glossary 46
Certification Summary 47
Chain of Custody 48
Receipt Checklists 49

Sample Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-169295-1	State Well-1 20161214	Water	12/14/16 13:55	12/14/16 18:00
440-169295-2	Comp-1 20161214	Solid	12/14/16 15:30	12/14/16 18:00
440-169295-3	TB-1 20161214	Water	12/14/16 13:50	12/14/16 18:00

Job ID: 440-169295-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-169295-1

Comments
No additional comments.

Receipt
The samples were received on 12/14/2016 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.5º C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8015B: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 440-376128 and analytical batch 440-376540 was outside control limits. Sample non-homogeneity is suspected because the associated laboratory control sample was within acceptance limits: (440-168951-A-1-B MSD) .

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 440-376529 and analytical batch 440-376821 were outside control limits for Lead, Antimony and Zinc. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample recovery was within acceptance limits.(440-169732-A-1-D MS) and (440-169732-A-1-E MSD)

Method(s) 6010B: The serial dilution performed for the following sample associated with batch 440-376821 was outside control limits for Lead and Zinc:(440-169732-A-1-A SD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3546: The following sample was diluted due to the nature of the sample matrix: Comp-1 20161214 (440-169295-2). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-1

Client Sample ID: State Well-1 20161214
Date Collected: 12/14/16 13:55
Date Received: 12/14/16 18:00

Lab Sample ID: 440-169295-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/19/16 09:57	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/19/16 09:57	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/19/16 09:57	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/19/16 09:57	1
1,1-Dichloroethane	ND		0.50		ug/L			12/19/16 09:57	1
1,1-Dichloroethene	ND		0.50		ug/L			12/19/16 09:57	1
1,1-Dichloropropene	ND		0.50		ug/L			12/19/16 09:57	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/19/16 09:57	1
1,2,3-Trichloropropane	ND		1.0		ug/L			12/19/16 09:57	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/19/16 09:57	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/19/16 09:57	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			12/19/16 09:57	1
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			12/19/16 09:57	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/19/16 09:57	1
1,2-Dichloroethane	ND		0.50		ug/L			12/19/16 09:57	1
1,2-Dichloropropane	ND		0.50		ug/L			12/19/16 09:57	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/19/16 09:57	1
1,3-Dichloropropane	ND		0.50		ug/L			12/19/16 09:57	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/19/16 09:57	1
2,2-Dichloropropane	ND		1.0		ug/L			12/19/16 09:57	1
2-Chlorotoluene	ND		0.50		ug/L			12/19/16 09:57	1
4-Chlorotoluene	ND		0.50		ug/L			12/19/16 09:57	1
Benzene	ND		0.50		ug/L			12/19/16 09:57	1
Bromobenzene	ND		0.50		ug/L			12/19/16 09:57	1
Bromochloromethane	ND		0.50		ug/L			12/19/16 09:57	1
Bromodichloromethane	ND		0.50		ug/L			12/19/16 09:57	1
Bromoform	ND		1.0		ug/L			12/19/16 09:57	1
Bromomethane	ND		0.50		ug/L			12/19/16 09:57	1
Carbon tetrachloride	ND		0.50		ug/L			12/19/16 09:57	1
Chlorobenzene	ND		0.50		ug/L			12/19/16 09:57	1
Chloroethane	ND		1.0		ug/L			12/19/16 09:57	1
Chloroform	ND		0.50		ug/L			12/19/16 09:57	1
Chloromethane	ND		0.50		ug/L			12/19/16 09:57	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/19/16 09:57	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/19/16 09:57	1
Dibromochloromethane	ND		0.50		ug/L			12/19/16 09:57	1
Dibromomethane	ND		0.50		ug/L			12/19/16 09:57	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/19/16 09:57	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			12/19/16 09:57	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			12/19/16 09:57	1
Hexachlorobutadiene	ND		0.50		ug/L			12/19/16 09:57	1
Isopropylbenzene	ND		0.50		ug/L			12/19/16 09:57	1
m,p-Xylene	ND		1.0		ug/L			12/19/16 09:57	1
Methylene Chloride	ND		2.0		ug/L			12/19/16 09:57	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/19/16 09:57	1
Naphthalene	ND		1.0		ug/L			12/19/16 09:57	1
n-Butylbenzene	ND		1.0		ug/L			12/19/16 09:57	1
N-Propylbenzene	ND		0.50		ug/L			12/19/16 09:57	1
o-Xylene	ND		0.50		ug/L			12/19/16 09:57	1

Client Sample ID: State Well-1 20161214

Date Collected: 12/14/16 13:55
Date Received: 12/14/16 18:00

Lab Sample ID: 440-169295-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		0.50		ug/L			12/19/16 09:57	1
sec-Butylbenzene	ND		0.50		ug/L			12/19/16 09:57	1
Styrene	ND		0.50		ug/L			12/19/16 09:57	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			12/19/16 09:57	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			12/19/16 09:57	1
tert-Butylbenzene	ND		0.50		ug/L			12/19/16 09:57	1
Tetrachloroethene	ND		0.50		ug/L			12/19/16 09:57	1
Toluene	ND		0.50		ug/L			12/19/16 09:57	1
trans-1,2-Dichloroethene	**2.1**		0.50		ug/L			12/19/16 09:57	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/19/16 09:57	1
Trichloroethene	ND		0.50		ug/L			12/19/16 09:57	1
Trichlorofluoromethane	ND		0.50		ug/L			12/19/16 09:57	1
Vinyl chloride	ND		0.50		ug/L			12/19/16 09:57	1
Xylenes, Total	ND		1.0		ug/L			12/19/16 09:57	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/19/16 09:57	1
Ethylbenzene	ND		0.50		ug/L			12/19/16 09:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*12/19/16 09:57*	*1*
Dibromofluoromethane (Surr)	*108*		*76 - 132*		*12/19/16 09:57*	*1*
Toluene-d8 (Surr)	*111*		*80 - 128*		*12/19/16 09:57*	*1*

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	**2.6**		2.0		ug/L			12/15/16 00:23	1

Method: 6010B - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:26	1
Arsenic	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:26	1
Barium	**0.094**		0.010		mg/L		12/19/16 09:34	12/19/16 18:26	1
Beryllium	ND		0.0020		mg/L		12/19/16 09:34	12/19/16 18:26	1
Cadmium	ND		0.0050		mg/L		12/19/16 09:34	12/19/16 18:26	1
Chromium	**0.0080**		0.0050		mg/L		12/19/16 09:34	12/19/16 18:26	1
Cobalt	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:26	1
Copper	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:26	1
Lead	ND		0.0050		mg/L		12/19/16 09:34	12/19/16 18:26	1
Molybdenum	ND		0.020		mg/L		12/19/16 09:34	12/19/16 18:26	1
Nickel	**0.011**		0.010		mg/L		12/19/16 09:34	12/19/16 18:26	1
Selenium	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:26	1
Thallium	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:26	1
Vanadium	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:26	1
Zinc	ND		0.020		mg/L		12/19/16 09:34	12/19/16 18:26	1
Silver	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:26	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:54	1
Arsenic	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:54	1
Barium	**0.084**		0.010		mg/L		12/20/16 08:23	12/20/16 15:45	1

Client Sample ID: State Well-1 20161214

Lab Sample ID: 440-169295-1

Date Collected: 12/14/16 13:55

Matrix: Water

Date Received: 12/14/16 18:00

Method: 6010B - Metals (ICP) - Dissolved (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.0020		mg/L		12/20/16 08:23	12/20/16 16:54	1
Cadmium	ND		0.0050		mg/L		12/20/16 08:23	12/20/16 16:54	1
Chromium	ND		0.0050		mg/L		12/20/16 08:23	12/20/16 16:54	1
Cobalt	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:54	1
Copper	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:54	1
Lead	ND		0.0050		mg/L		12/20/16 08:23	12/20/16 16:54	1
Molybdenum	ND		0.020		mg/L		12/20/16 08:23	12/20/16 16:54	1
Nickel	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:54	1
Selenium	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:54	1
Thallium	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:54	1
Vanadium	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:54	1
Zinc	ND		0.020		mg/L		12/20/16 08:23	12/20/16 16:54	1
Silver	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/15/16 11:32	12/15/16 17:34	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/16 00:23	12/20/16 18:03	1

Client Sample ID: Comp-1 20161214

Lab Sample ID: 440-169295-2

Date Collected: 12/14/16 15:30

Matrix: Solid

Date Received: 12/14/16 18:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		9.9		ug/Kg			12/15/16 16:26	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/Kg			12/15/16 16:26	1
1,1,1-Trichloroethane	ND		0.99		ug/Kg			12/15/16 16:26	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			12/15/16 16:26	1
1,1,2-Trichloroethane	ND		0.99		ug/Kg			12/15/16 16:26	1
1,1-Dichloroethane	ND		0.99		ug/Kg			12/15/16 16:26	1
1,1-Dichloroethene	ND		2.0		ug/Kg			12/15/16 16:26	1
1,1-Dichloropropene	ND		0.99		ug/Kg			12/15/16 16:26	1
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg			12/15/16 16:26	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			12/15/16 16:26	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			12/15/16 16:26	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			12/15/16 16:26	1
1,2-Dichlorobenzene	ND		0.99		ug/Kg			12/15/16 16:26	1
1,2-Dichloroethane	ND		0.99		ug/Kg			12/15/16 16:26	1
1,2-Dichloropropane	ND		0.99		ug/Kg			12/15/16 16:26	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			12/15/16 16:26	1
1,3-Dichlorobenzene	ND		0.99		ug/Kg			12/15/16 16:26	1
1,3-Dichloropropane	ND		0.99		ug/Kg			12/15/16 16:26	1
1,4-Dichlorobenzene	ND		0.99		ug/Kg			12/15/16 16:26	1
2,2-Dichloropropane	ND		2.0		ug/Kg			12/15/16 16:26	1
2-Chlorotoluene	ND		2.0		ug/Kg			12/15/16 16:26	1
4-Chlorotoluene	ND		2.0		ug/Kg			12/15/16 16:26	1

Client Sample ID: Comp-1 20161214
Date Collected: 12/14/16 15:30
Date Received: 12/14/16 18:00

Lab Sample ID: 440-169295-2
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		0.99	ug/Kg			12/15/16 16:26	1
Benzene	ND		0.99	ug/Kg			12/15/16 16:26	1
Bromobenzene	ND		2.0	ug/Kg			12/15/16 16:26	1
Bromoform	ND		2.0	ug/Kg			12/15/16 16:26	1
Bromomethane	ND		2.0	ug/Kg			12/15/16 16:26	1
Carbon tetrachloride	ND		2.0	ug/Kg			12/15/16 16:26	1
Chlorobenzene	ND		0.99	ug/Kg			12/15/16 16:26	1
Bromochloromethane	ND		2.0	ug/Kg			12/15/16 16:26	1
Chloroethane	ND		2.0	ug/Kg			12/15/16 16:26	1
Chloroform	ND		0.99	ug/Kg			12/15/16 16:26	1
Chloromethane	ND		2.0	ug/Kg			12/15/16 16:26	1
cis-1,2-Dichloroethene	ND		0.99	ug/Kg			12/15/16 16:26	1
cis-1,3-Dichloropropene	ND		0.99	ug/Kg			12/15/16 16:26	1
Dibromochloromethane	ND		0.99	ug/Kg			12/15/16 16:26	1
Dibromomethane	ND		0.99	ug/Kg			12/15/16 16:26	1
Bromodichloromethane	ND		0.99	ug/Kg			12/15/16 16:26	1
Dichlorodifluoromethane	ND		2.0	ug/Kg			12/15/16 16:26	1
Ethylbenzene	ND		0.99	ug/Kg			12/15/16 16:26	1
Hexachlorobutadiene	ND		2.0	ug/Kg			12/15/16 16:26	1
Isopropylbenzene	ND		0.99	ug/Kg			12/15/16 16:26	1
m,p-Xylene	ND		2.0	ug/Kg			12/15/16 16:26	1
Methylene Chloride	ND		9.9	ug/Kg			12/15/16 16:26	1
Naphthalene	ND		2.0	ug/Kg			12/15/16 16:26	1
n-Butylbenzene	ND		2.0	ug/Kg			12/15/16 16:26	1
N-Propylbenzene	ND		0.99	ug/Kg			12/15/16 16:26	1
o-Xylene	ND		0.99	ug/Kg			12/15/16 16:26	1
sec-Butylbenzene	ND		2.0	ug/Kg			12/15/16 16:26	1
Styrene	ND		0.99	ug/Kg			12/15/16 16:26	1
tert-Butylbenzene	ND		2.0	ug/Kg			12/15/16 16:26	1
Tetrachloroethene	ND		0.99	ug/Kg			12/15/16 16:26	1
Toluene	ND		0.99	ug/Kg			12/15/16 16:26	1
trans-1,2-Dichloroethene	ND		0.99	ug/Kg			12/15/16 16:26	1
trans-1,3-Dichloropropene	ND		0.99	ug/Kg			12/15/16 16:26	1
Trichloroethene	ND		0.99	ug/Kg			12/15/16 16:26	1
Trichlorofluoromethane	ND		2.0	ug/Kg			12/15/16 16:26	1
Vinyl chloride	ND		2.0	ug/Kg			12/15/16 16:26	1
1,2-Dibromoethane (EDB)	ND		0.99	ug/Kg			12/15/16 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*111*		*79 - 123*		*12/15/16 16:26*	*1*
4-Bromofluorobenzene (Surr)	*109*		*79 - 120*		*12/15/16 16:26*	*1*
Dibromofluoromethane (Surr)	*110*		*60 - 120*		*12/15/16 16:26*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400	ug/Kg			12/16/16 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*65 - 140*		*12/16/16 15:44*	*1*

Client Sample ID: Comp-1 20161214

Lab Sample ID: 440-169295-2

Date Collected: 12/14/16 15:30

Matrix: Solid

Date Received: 12/14/16 18:00

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		11		mg/Kg		12/15/16 16:09	12/17/16 16:46	1
C23-C40	ND		11		mg/Kg		12/15/16 16:09	12/17/16 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*80*		*40 - 140*	*12/15/16 16:09*	*12/17/16 16:46*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.8		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Arsenic	**5.8**		2.9		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Barium	**52**		1.5		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Beryllium	ND		0.49		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Cadmium	ND		0.49		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Chromium	**31**		0.98		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Cobalt	**4.3**		0.98		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Copper	**10**		2.0		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Lead	**61**		2.0		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Molybdenum	ND		2.0		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Nickel	**9.1**		2.0		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Selenium	ND		2.9		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Thallium	ND		9.8		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Vanadium	**24**		0.98		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Zinc	**27**		4.9		mg/Kg		12/17/16 11:29	12/19/16 14:24	5
Silver	ND		1.5		mg/Kg		12/17/16 11:29	12/19/16 14:24	5

Client Sample ID: TB-1 20161214

Lab Sample ID: 440-169295-3

Date Collected: 12/14/16 13:50

Matrix: Water

Date Received: 12/14/16 18:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/17/16 13:31	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/17/16 13:31	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/17/16 13:31	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/17/16 13:31	1
1,1-Dichloroethane	ND		0.50		ug/L			12/17/16 13:31	1
1,1-Dichloroethene	ND		0.50		ug/L			12/17/16 13:31	1
1,1-Dichloropropene	ND		0.50		ug/L			12/17/16 13:31	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/17/16 13:31	1
1,2,3-Trichloropropane	ND		1.0		ug/L			12/17/16 13:31	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/17/16 13:31	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/17/16 13:31	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			12/17/16 13:31	1
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			12/17/16 13:31	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/17/16 13:31	1
1,2-Dichloroethane	ND		0.50		ug/L			12/17/16 13:31	1
1,2-Dichloropropane	ND		0.50		ug/L			12/17/16 13:31	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/17/16 13:31	1
1,3-Dichloropropane	ND		0.50		ug/L			12/17/16 13:31	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/17/16 13:31	1

Client Sample ID: TB-1 20161214
Date Collected: 12/14/16 13:50
Date Received: 12/14/16 18:00

Lab Sample ID: 440-169295-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		1.0		ug/L			12/17/16 13:31	1
2-Chlorotoluene	ND		0.50		ug/L			12/17/16 13:31	1
4-Chlorotoluene	ND		0.50		ug/L			12/17/16 13:31	1
Benzene	ND		0.50		ug/L			12/17/16 13:31	1
Bromobenzene	ND		0.50		ug/L			12/17/16 13:31	1
Bromochloromethane	ND		0.50		ug/L			12/17/16 13:31	1
Bromodichloromethane	ND		0.50		ug/L			12/17/16 13:31	1
Bromoform	ND		1.0		ug/L			12/17/16 13:31	1
Bromomethane	ND		0.50		ug/L			12/17/16 13:31	1
Carbon tetrachloride	ND		0.50		ug/L			12/17/16 13:31	1
Chlorobenzene	ND		0.50		ug/L			12/17/16 13:31	1
Chloroethane	ND		1.0		ug/L			12/17/16 13:31	1
Chloroform	ND		0.50		ug/L			12/17/16 13:31	1
Chloromethane	ND		0.50		ug/L			12/17/16 13:31	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/17/16 13:31	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/17/16 13:31	1
Dibromochloromethane	ND		0.50		ug/L			12/17/16 13:31	1
Dibromomethane	ND		0.50		ug/L			12/17/16 13:31	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/17/16 13:31	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			12/17/16 13:31	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			12/17/16 13:31	1
Hexachlorobutadiene	ND		0.50		ug/L			12/17/16 13:31	1
Isopropylbenzene	ND		0.50		ug/L			12/17/16 13:31	1
m,p-Xylene	ND		1.0		ug/L			12/17/16 13:31	1
Methylene Chloride	ND		2.0		ug/L			12/17/16 13:31	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/17/16 13:31	1
Naphthalene	ND		1.0		ug/L			12/17/16 13:31	1
n-Butylbenzene	ND		1.0		ug/L			12/17/16 13:31	1
N-Propylbenzene	ND		0.50		ug/L			12/17/16 13:31	1
o-Xylene	ND		0.50		ug/L			12/17/16 13:31	1
p-Isopropyltoluene	ND		0.50		ug/L			12/17/16 13:31	1
sec-Butylbenzene	ND		0.50		ug/L			12/17/16 13:31	1
Styrene	ND		0.50		ug/L			12/17/16 13:31	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			12/17/16 13:31	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			12/17/16 13:31	1
tert-Butylbenzene	ND		0.50		ug/L			12/17/16 13:31	1
Tetrachloroethene	ND		0.50		ug/L			12/17/16 13:31	1
Toluene	ND		0.50		ug/L			12/17/16 13:31	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/17/16 13:31	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/17/16 13:31	1
Trichloroethene	ND		0.50		ug/L			12/17/16 13:31	1
Trichlorofluoromethane	ND		0.50		ug/L			12/17/16 13:31	1
Vinyl chloride	ND		0.50		ug/L			12/17/16 13:31	1
Xylenes, Total	ND		1.0		ug/L			12/17/16 13:31	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/17/16 13:31	1
Ethylbenzene	ND		0.50		ug/L			12/17/16 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*12/17/16 13:31*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*12/17/16 13:31*	*1*

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-1

Client Sample ID: TB-1 20161214
Date Collected: 12/14/16 13:50
Date Received: 12/14/16 18:00

Lab Sample ID: 440-169295-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	110		80 - 128		12/17/16 13:31	1

Method Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8015B	Gasoline Range Organics - (GC)	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
7199	Chromium, Hexavalent (IC)	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
7470A	Mercury (CVAA)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-1

Client Sample ID: State Well-1 20161214

Date Collected: 12/14/16 13:55
Date Received: 12/14/16 18:00

Lab Sample ID: 440-169295-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	376682	12/19/16 09:57	RM	TAL IRV
Total/NA	Analysis	7199		1			375656	12/15/16 00:23	MN	TAL IRV
Dissolved	Filtration	FILTRATION			175 mL	175 mL	376820	12/19/16 15:10	Q1N	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	376990	12/20/16 08:23	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			377170	12/20/16 16:54	EN	TAL IRV
Dissolved	Filtration	FILTRATION			175 mL	175 mL	376820	12/19/16 15:10	Q1N	TAL IRV
Dissolved	Prep	3005A			25 mL	25 mL	376990	12/20/16 08:23	Q1N	TAL IRV
Dissolved	Analysis	6010B		1			377150	12/20/16 15:45	EN	TAL IRV
Total Recoverable	Prep	3005A			25 mL	25 mL	376735	12/19/16 09:34	Q1N	TAL IRV
Total Recoverable	Analysis	6010B		1			376892	12/19/16 18:26	EN	TAL IRV
Dissolved	Filtration	FILTRATION			175 mL	175 mL	376820	12/19/16 15:10	Q1N	TAL IRV
Dissolved	Prep	7470A			20 mL	20 mL	376932	12/20/16 00:23	DB	TAL IRV
Dissolved	Analysis	7470A		1			377235	12/20/16 18:03	DB	TAL IRV
Total/NA	Prep	7470A			20 mL	20 mL	376038	12/15/16 11:32	DB	TAL IRV
Total/NA	Analysis	7470A		1			376182	12/15/16 17:34	DB	TAL IRV

Client Sample ID: Comp-1 20161214

Date Collected: 12/14/16 15:30
Date Received: 12/14/16 18:00

Lab Sample ID: 440-169295-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.03 g	10 mL	375940	12/15/16 16:26	AYL	TAL IRV
Total/NA	Analysis	8015B		1	5.06 g	10 mL	376268	12/16/16 15:44	EI	TAL IRV
Total/NA	Prep	3546			7.04 g	1 mL	376128	12/15/16 16:09	AP	TAL IRV
Total/NA	Analysis	8015B		1			376538	12/17/16 16:46	LMB	TAL IRV
Total/NA	Prep	3050B			2.04 g	50 mL	376529	12/17/16 11:29	IH1	TAL IRV
Total/NA	Analysis	6010B		5			376821	12/19/16 14:24	EN	TAL IRV

Client Sample ID: TB-1 20161214

Date Collected: 12/14/16 13:50
Date Received: 12/14/16 18:00

Lab Sample ID: 440-169295-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	376507	12/17/16 13:31	GK	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-375940/4
Matrix: Solid
Analysis Batch: 375940

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		2.0		ug/Kg			12/15/16 08:16	1
1,1,1-Trichloroethane	ND		1.0		ug/Kg			12/15/16 08:16	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			12/15/16 08:16	1
1,1,2-Trichloroethane	ND		1.0		ug/Kg			12/15/16 08:16	1
1,1-Dichloroethane	ND		1.0		ug/Kg			12/15/16 08:16	1
1,1-Dichloroethene	ND		2.0		ug/Kg			12/15/16 08:16	1
1,1-Dichloropropene	ND		1.0		ug/Kg			12/15/16 08:16	1
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg			12/15/16 08:16	1
1,2,3-Trichloropropane	ND		10		ug/Kg			12/15/16 08:16	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			12/15/16 08:16	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			12/15/16 08:16	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			12/15/16 08:16	1
1,2-Dichlorobenzene	ND		1.0		ug/Kg			12/15/16 08:16	1
1,2-Dichloroethane	ND		1.0		ug/Kg			12/15/16 08:16	1
1,2-Dichloropropane	ND		1.0		ug/Kg			12/15/16 08:16	1
1,3-Dichlorobenzene	ND		1.0		ug/Kg			12/15/16 08:16	1
1,3-Dichloropropane	ND		1.0		ug/Kg			12/15/16 08:16	1
1,4-Dichlorobenzene	ND		1.0		ug/Kg			12/15/16 08:16	1
2,2-Dichloropropane	ND		2.0		ug/Kg			12/15/16 08:16	1
2-Chlorotoluene	ND		2.0		ug/Kg			12/15/16 08:16	1
4-Chlorotoluene	ND		2.0		ug/Kg			12/15/16 08:16	1
Benzene	ND		1.0		ug/Kg			12/15/16 08:16	1
Bromobenzene	ND		2.0		ug/Kg			12/15/16 08:16	1
Bromoform	ND		2.0		ug/Kg			12/15/16 08:16	1
Bromomethane	ND		2.0		ug/Kg			12/15/16 08:16	1
Carbon tetrachloride	ND		2.0		ug/Kg			12/15/16 08:16	1
Bromochloromethane	ND		2.0		ug/Kg			12/15/16 08:16	1
Chlorobenzene	ND		1.0		ug/Kg			12/15/16 08:16	1
Chloroethane	ND		2.0		ug/Kg			12/15/16 08:16	1
Chloroform	ND		1.0		ug/Kg			12/15/16 08:16	1
Chloromethane	ND		2.0		ug/Kg			12/15/16 08:16	1
cis-1,2-Dichloroethene	ND		1.0		ug/Kg			12/15/16 08:16	1
cis-1,3-Dichloropropene	ND		1.0		ug/Kg			12/15/16 08:16	1
Dibromochloromethane	ND		1.0		ug/Kg			12/15/16 08:16	1
Dibromomethane	ND		1.0		ug/Kg			12/15/16 08:16	1
Bromodichloromethane	ND		1.0		ug/Kg			12/15/16 08:16	1
Dichlorodifluoromethane	ND		2.0		ug/Kg			12/15/16 08:16	1
Hexachlorobutadiene	ND		2.0		ug/Kg			12/15/16 08:16	1
Isopropylbenzene	ND		1.0		ug/Kg			12/15/16 08:16	1
m,p-Xylene	ND		2.0		ug/Kg			12/15/16 08:16	1
Methylene Chloride	ND		10		ug/Kg			12/15/16 08:16	1
Naphthalene	ND		2.0		ug/Kg			12/15/16 08:16	1
n-Butylbenzene	ND		2.0		ug/Kg			12/15/16 08:16	1
N-Propylbenzene	ND		1.0		ug/Kg			12/15/16 08:16	1
o-Xylene	ND		1.0		ug/Kg			12/15/16 08:16	1
p-Isopropyltoluene	ND		1.0		ug/Kg			12/15/16 08:16	1
sec-Butylbenzene	ND		2.0		ug/Kg			12/15/16 08:16	1
Styrene	ND		1.0		ug/Kg			12/15/16 08:16	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-375940/4
Matrix: Solid
Analysis Batch: 375940

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	ND		2.0		ug/Kg			12/15/16 08:16	1
Tetrachloroethene	ND		1.0		ug/Kg			12/15/16 08:16	1
Toluene	ND		1.0		ug/Kg			12/15/16 08:16	1
trans-1,2-Dichloroethene	ND		1.0		ug/Kg			12/15/16 08:16	1
trans-1,3-Dichloropropene	ND		1.0		ug/Kg			12/15/16 08:16	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/Kg			12/15/16 08:16	1
Trichloroethene	ND		1.0		ug/Kg			12/15/16 08:16	1
Trichlorofluoromethane	ND		2.0		ug/Kg			12/15/16 08:16	1
Vinyl chloride	ND		2.0		ug/Kg			12/15/16 08:16	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			12/15/16 08:16	1
Ethylbenzene	ND		1.0		ug/Kg			12/15/16 08:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*79 - 120*		*12/15/16 08:16*	*1*
Dibromofluoromethane (Surr)	*117*		*60 - 120*		*12/15/16 08:16*	*1*
Toluene-d8 (Surr)	*111*		*79 - 123*		*12/15/16 08:16*	*1*

Lab Sample ID: LCS 440-375940/5
Matrix: Solid
Analysis Batch: 375940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	58.0		ug/Kg		116	70 - 130
1,1,1-Trichloroethane	50.0	61.4		ug/Kg		123	65 - 135
1,1,2,2-Tetrachloroethane	50.0	51.8		ug/Kg		104	55 - 140
1,1,2-Trichloroethane	50.0	54.0		ug/Kg		108	65 - 135
1,1-Dichloroethane	50.0	55.9		ug/Kg		112	70 - 130
1,1-Dichloroethene	50.0	53.7		ug/Kg		107	70 - 125
1,1-Dichloropropene	50.0	54.3		ug/Kg		109	70 - 130
1,2,3-Trichlorobenzene	50.0	54.6		ug/Kg		109	60 - 130
1,2,3-Trichloropropane	50.0	55.1		ug/Kg		110	60 - 135
1,2,4-Trichlorobenzene	50.0	57.0		ug/Kg		114	70 - 135
1,2,4-Trimethylbenzene	50.0	53.0		ug/Kg		106	70 - 125
1,2-Dibromo-3-Chloropropane	50.0	53.3		ug/Kg		107	50 - 135
1,2-Dichlorobenzene	50.0	54.8		ug/Kg		110	75 - 120
1,2-Dichloroethane	50.0	66.2		ug/Kg		132	60 - 140
1,2-Dichloropropane	50.0	57.3		ug/Kg		115	70 - 130
1,3-Dichlorobenzene	50.0	54.2		ug/Kg		108	75 - 125
1,3-Dichloropropane	50.0	50.7		ug/Kg		101	70 - 125
1,4-Dichlorobenzene	50.0	53.9		ug/Kg		108	75 - 120
2,2-Dichloropropane	50.0	67.7		ug/Kg		135	60 - 145
2-Chlorotoluene	50.0	51.7		ug/Kg		103	70 - 125
4-Chlorotoluene	50.0	52.7		ug/Kg		105	75 - 125
Benzene	50.0	52.6		ug/Kg		105	65 - 120
Bromobenzene	50.0	54.2		ug/Kg		108	75 - 120
Bromoform	50.0	63.8		ug/Kg		128	55 - 135
Bromomethane	50.0	66.9		ug/Kg		134	60 - 145
Carbon tetrachloride	50.0	65.0		ug/Kg		130	65 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-375940/5
Matrix: Solid
Analysis Batch: 375940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromochloromethane	50.0	61.7		ug/Kg		123	70 - 135
Chlorobenzene	50.0	49.9		ug/Kg		100	75 - 120
Chloroethane	50.0	59.6		ug/Kg		119	60 - 140
Chloroform	50.0	59.4		ug/Kg		119	70 - 130
Chloromethane	50.0	56.7		ug/Kg		113	45 - 145
cis-1,2-Dichloroethene	50.0	57.0		ug/Kg		114	70 - 125
cis-1,3-Dichloropropene	50.0	56.0		ug/Kg		112	75 - 125
Dibromochloromethane	50.0	59.0		ug/Kg		118	65 - 140
Dibromomethane	50.0	61.3		ug/Kg		123	70 - 130
Bromodichloromethane	50.0	63.9		ug/Kg		128	70 - 135
Dichlorodifluoromethane	50.0	50.5		ug/Kg		101	35 - 160
Hexachlorobutadiene	50.0	55.4		ug/Kg		111	60 - 135
Isopropylbenzene	50.0	51.8		ug/Kg		104	75 - 130
m,p-Xylene	50.0	50.7		ug/Kg		101	70 - 125
Methylene Chloride	50.0	53.8		ug/Kg		108	55 - 135
Naphthalene	50.0	51.8		ug/Kg		104	55 - 135
n-Butylbenzene	50.0	52.3		ug/Kg		105	70 - 130
N-Propylbenzene	50.0	51.0		ug/Kg		102	70 - 130
o-Xylene	50.0	49.7		ug/Kg		99	70 - 125
p-Isopropyltoluene	50.0	52.0		ug/Kg		104	75 - 125
sec-Butylbenzene	50.0	49.2		ug/Kg		98	70 - 125
Styrene	50.0	49.1		ug/Kg		98	75 - 130
tert-Butylbenzene	50.0	52.7		ug/Kg		105	70 - 125
Tetrachloroethene	50.0	50.8		ug/Kg		102	70 - 125
Toluene	50.0	49.6		ug/Kg		99	70 - 125
trans-1,2-Dichloroethene	50.0	58.4		ug/Kg		117	70 - 125
trans-1,3-Dichloropropene	50.0	58.1		ug/Kg		116	70 - 135
1,2-Dibromoethane (EDB)	50.0	56.3		ug/Kg		113	70 - 130
Trichloroethene	50.0	57.5		ug/Kg		115	70 - 125
Trichlorofluoromethane	50.0	65.3		ug/Kg		131	60 - 145
Vinyl chloride	50.0	59.2		ug/Kg		118	55 - 135
1,3,5-Trimethylbenzene	50.0	54.0		ug/Kg		108	70 - 125
Ethylbenzene	50.0	49.0		ug/Kg		98	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*79 - 120*
Dibromofluoromethane (Surr)	*114*		*60 - 120*
Toluene-d8 (Surr)	*101*		*79 - 123*

Lab Sample ID: 440-169267-A-3 MS
Matrix: Solid
Analysis Batch: 375940

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		49.7	56.6		ug/Kg		114	65 - 145
1,1,1-Trichloroethane	ND		49.7	62.4		ug/Kg		125	65 - 145
1,1,2,2-Tetrachloroethane	ND		49.7	54.2		ug/Kg		109	40 - 160
1,1,2-Trichloroethane	ND		49.7	54.5		ug/Kg		110	65 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-169267-A-3 MS
Matrix: Solid
Analysis Batch: 375940

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	ND		49.7	56.1		ug/Kg		113	65 - 135
1,1-Dichloroethene	ND		49.7	57.0		ug/Kg		115	65 - 135
1,1-Dichloropropene	ND		49.7	55.0		ug/Kg		111	65 - 135
1,2,3-Trichlorobenzene	ND		49.7	45.2		ug/Kg		91	45 - 145
1,2,3-Trichloropropane	ND		49.7	58.5		ug/Kg		118	50 - 150
1,2,4-Trichlorobenzene	ND		49.7	49.1		ug/Kg		99	50 - 140
1,2,4-Trimethylbenzene	ND		49.7	51.0		ug/Kg		103	65 - 140
1,2-Dibromo-3-Chloropropane	ND		49.7	57.4		ug/Kg		115	40 - 150
1,2-Dichlorobenzene	ND		49.7	52.1		ug/Kg		105	70 - 130
1,2-Dichloroethane	ND		49.7	63.0		ug/Kg		127	60 - 150
1,2-Dichloropropane	ND		49.7	56.8		ug/Kg		114	65 - 130
1,3-Dichlorobenzene	ND		49.7	51.2		ug/Kg		103	70 - 130
1,3-Dichloropropane	ND		49.7	52.7		ug/Kg		106	65 - 140
1,4-Dichlorobenzene	ND		49.7	51.1		ug/Kg		103	70 - 130
2,2-Dichloropropane	ND		49.7	67.0		ug/Kg		135	65 - 150
2-Chlorotoluene	ND		49.7	51.1		ug/Kg		103	60 - 135
4-Chlorotoluene	ND		49.7	52.5		ug/Kg		106	65 - 135
Benzene	ND		49.7	53.1		ug/Kg		107	65 - 130
Bromobenzene	ND		49.7	55.1		ug/Kg		111	65 - 140
Bromoform	ND		49.7	62.1		ug/Kg		125	50 - 145
Bromomethane	ND		49.7	65.5		ug/Kg		132	60 - 155
Carbon tetrachloride	ND		49.7	64.6		ug/Kg		130	60 - 145
Bromochloromethane	ND		49.7	59.6		ug/Kg		120	65 - 145
Chlorobenzene	ND		49.7	49.8		ug/Kg		100	70 - 130
Chloroethane	ND		49.7	58.8		ug/Kg		118	60 - 150
Chloroform	ND		49.7	58.7		ug/Kg		118	65 - 135
Chloromethane	ND		49.7	59.6		ug/Kg		120	40 - 145
cis-1,2-Dichloroethene	ND		49.7	55.5		ug/Kg		112	65 - 135
cis-1,3-Dichloropropene	ND		49.7	57.5		ug/Kg		116	70 - 135
Dibromochloromethane	ND		49.7	58.2		ug/Kg		117	60 - 145
Dibromomethane	ND		49.7	59.0		ug/Kg		119	65 - 140
Bromodichloromethane	ND		49.7	60.2		ug/Kg		121	65 - 145
Dichlorodifluoromethane	ND		49.7	53.0		ug/Kg		107	30 - 160
Hexachlorobutadiene	ND		49.7	35.7		ug/Kg		72	50 - 145
Isopropylbenzene	ND		49.7	49.2		ug/Kg		99	70 - 145
m,p-Xylene	ND		49.7	49.6		ug/Kg		100	70 - 130
Methylene Chloride	ND		49.7	54.7		ug/Kg		110	55 - 145
Naphthalene	ND		49.7	53.7		ug/Kg		105	40 - 150
n-Butylbenzene	ND		49.7	44.0		ug/Kg		89	55 - 145
N-Propylbenzene	ND		49.7	50.2		ug/Kg		101	65 - 140
o-Xylene	ND		49.7	48.2		ug/Kg		97	65 - 130
p-Isopropyltoluene	ND		49.7	46.6		ug/Kg		94	60 - 140
sec-Butylbenzene	ND		49.7	44.8		ug/Kg		90	60 - 135
Styrene	ND		49.7	48.5		ug/Kg		97	70 - 140
tert-Butylbenzene	ND		49.7	49.8		ug/Kg		100	60 - 140
Tetrachloroethene	ND		49.7	50.8		ug/Kg		102	65 - 135
Toluene	ND		49.7	50.3		ug/Kg		101	70 - 130
trans-1,2-Dichloroethene	ND		49.7	59.8		ug/Kg		120	70 - 135

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-169267-A-3 MS
Matrix: Solid
Analysis Batch: 375940

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	ND		49.7	58.7		ug/Kg		118	60 - 145
1,2-Dibromoethane (EDB)	ND		49.7	56.6		ug/Kg		114	65 - 140
Trichloroethene	ND		49.7	58.7		ug/Kg		118	65 - 140
Trichlorofluoromethane	ND		49.7	64.9		ug/Kg		131	55 - 155
Vinyl chloride	ND		49.7	61.7		ug/Kg		124	55 - 140
1,3,5-Trimethylbenzene	ND		49.7	52.4		ug/Kg		105	65 - 135
Ethylbenzene	ND		49.7	48.8		ug/Kg		98	70 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*79 - 120*
Dibromofluoromethane (Surr)	*112*		*60 - 120*
Toluene-d8 (Surr)	*105*		*79 - 123*

Lab Sample ID: 440-169267-A-3 MSD
Matrix: Solid
Analysis Batch: 375940

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		49.9	57.1		ug/Kg		114	65 - 145	1	20
1,1,1-Trichloroethane	ND		49.9	60.7		ug/Kg		122	65 - 145	3	20
1,1,2,2-Tetrachloroethane	ND		49.9	54.7		ug/Kg		110	40 - 160	1	30
1,1,2-Trichloroethane	ND		49.9	57.0		ug/Kg		114	65 - 140	4	30
1,1-Dichloroethane	ND		49.9	53.7		ug/Kg		108	65 - 135	4	25
1,1-Dichloroethene	ND		49.9	55.2		ug/Kg		111	65 - 135	3	25
1,1-Dichloropropene	ND		49.9	54.6		ug/Kg		109	65 - 135	1	20
1,2,3-Trichlorobenzene	ND		49.9	50.0		ug/Kg		100	45 - 145	10	30
1,2,3-Trichloropropane	ND		49.9	60.5		ug/Kg		121	50 - 150	3	30
1,2,4-Trichlorobenzene	ND		49.9	53.3		ug/Kg		107	50 - 140	8	30
1,2,4-Trimethylbenzene	ND		49.9	52.8		ug/Kg		106	65 - 140	3	25
1,2-Dibromo-3-Chloropropane	ND		49.9	59.7		ug/Kg		120	40 - 150	4	30
1,2-Dichlorobenzene	ND		49.9	54.0		ug/Kg		108	70 - 130	4	25
1,2-Dichloroethane	ND		49.9	62.1		ug/Kg		124	60 - 150	2	25
1,2-Dichloropropane	ND		49.9	56.8		ug/Kg		114	65 - 130	0	20
1,3-Dichlorobenzene	ND		49.9	53.4		ug/Kg		107	70 - 130	4	25
1,3-Dichloropropane	ND		49.9	55.1		ug/Kg		110	65 - 140	4	25
1,4-Dichlorobenzene	ND		49.9	52.6		ug/Kg		105	70 - 130	3	25
2,2-Dichloropropane	ND		49.9	64.6		ug/Kg		129	65 - 150	4	25
2-Chlorotoluene	ND		49.9	52.5		ug/Kg		105	60 - 135	3	25
4-Chlorotoluene	ND		49.9	53.5		ug/Kg		107	65 - 135	2	25
Benzene	ND		49.9	52.7		ug/Kg		106	65 - 130	1	20
Bromobenzene	ND		49.9	56.8		ug/Kg		114	65 - 140	3	25
Bromoform	ND		49.9	65.4		ug/Kg		131	50 - 145	5	30
Bromomethane	ND		49.9	65.6		ug/Kg		131	60 - 155	0	25
Carbon tetrachloride	ND		49.9	62.4		ug/Kg		125	60 - 145	3	25
Bromochloromethane	ND		49.9	60.3		ug/Kg		121	65 - 145	1	25
Chlorobenzene	ND		49.9	50.3		ug/Kg		101	70 - 130	1	25
Chloroethane	ND		49.9	61.7		ug/Kg		124	60 - 150	5	25
Chloroform	ND		49.9	57.8		ug/Kg		116	65 - 135	2	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-169267-A-3 MSD
Matrix: Solid
Analysis Batch: 375940

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	ND		49.9	56.2		ug/Kg		113	40 - 145	6	25
cis-1,2-Dichloroethene	ND		49.9	55.9		ug/Kg		112	65 - 135	1	25
cis-1,3-Dichloropropene	ND		49.9	58.6		ug/Kg		117	70 - 135	2	25
Dibromochloromethane	ND		49.9	60.0		ug/Kg		120	60 - 145	3	25
Dibromomethane	ND		49.9	59.3		ug/Kg		119	65 - 140	0	25
Bromodichloromethane	ND		49.9	60.4		ug/Kg		121	65 - 145	0	20
Dichlorodifluoromethane	ND		49.9	51.6		ug/Kg		103	30 - 160	3	35
Hexachlorobutadiene	ND		49.9	42.7		ug/Kg		86	50 - 145	18	35
Isopropylbenzene	ND		49.9	50.3		ug/Kg		101	70 - 145	2	25
m,p-Xylene	ND		49.9	50.2		ug/Kg		101	70 - 130	1	25
Methylene Chloride	ND		49.9	55.2		ug/Kg		111	55 - 145	1	25
Naphthalene	ND		49.9	57.4		ug/Kg		112	40 - 150	7	40
n-Butylbenzene	ND		49.9	49.2		ug/Kg		99	55 - 145	11	30
N-Propylbenzene	ND		49.9	51.5		ug/Kg		103	65 - 140	3	25
o-Xylene	ND		49.9	50.0		ug/Kg		100	65 - 130	4	25
p-Isopropyltoluene	ND		49.9	50.2		ug/Kg		101	60 - 140	8	25
sec-Butylbenzene	ND		49.9	47.9		ug/Kg		96	60 - 135	7	25
Styrene	ND		49.9	49.3		ug/Kg		99	70 - 140	2	25
tert-Butylbenzene	ND		49.9	52.5		ug/Kg		105	60 - 140	5	25
Tetrachloroethene	ND		49.9	51.6		ug/Kg		103	65 - 135	2	25
Toluene	ND		49.9	51.2		ug/Kg		103	70 - 130	2	20
trans-1,2-Dichloroethene	ND		49.9	58.9		ug/Kg		118	70 - 135	2	25
trans-1,3-Dichloropropene	ND		49.9	59.8		ug/Kg		120	60 - 145	2	25
1,2-Dibromoethane (EDB)	ND		49.9	59.4		ug/Kg		119	65 - 140	5	25
Trichloroethene	ND		49.9	58.3		ug/Kg		117	65 - 140	1	25
Trichlorofluoromethane	ND		49.9	63.9		ug/Kg		128	55 - 155	2	25
Vinyl chloride	ND		49.9	61.1		ug/Kg		122	55 - 140	1	30
1,3,5-Trimethylbenzene	ND		49.9	54.7		ug/Kg		110	65 - 135	4	25
Ethylbenzene	ND		49.9	49.9		ug/Kg		100	70 - 135	2	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*79 - 120*
Dibromofluoromethane (Surr)	*112*		*60 - 120*
Toluene-d8 (Surr)	*107*		*79 - 123*

Lab Sample ID: MB 440-376507/3
Matrix: Water
Analysis Batch: 376507

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/17/16 10:41	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/17/16 10:41	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/17/16 10:41	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/17/16 10:41	1
1,1-Dichloroethane	ND		0.50		ug/L			12/17/16 10:41	1
1,1-Dichloroethene	ND		0.50		ug/L			12/17/16 10:41	1
1,1-Dichloropropene	ND		0.50		ug/L			12/17/16 10:41	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/17/16 10:41	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-376507/3
Matrix: Water
Analysis Batch: 376507

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		1.0		ug/L			12/17/16 10:41	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/17/16 10:41	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/17/16 10:41	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			12/17/16 10:41	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/17/16 10:41	1
1,2-Dichloroethane	ND		0.50		ug/L			12/17/16 10:41	1
1,2-Dichloropropane	ND		0.50		ug/L			12/17/16 10:41	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/17/16 10:41	1
1,3-Dichloropropane	ND		0.50		ug/L			12/17/16 10:41	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/17/16 10:41	1
2,2-Dichloropropane	ND		1.0		ug/L			12/17/16 10:41	1
2-Chlorotoluene	ND		0.50		ug/L			12/17/16 10:41	1
4-Chlorotoluene	ND		0.50		ug/L			12/17/16 10:41	1
Benzene	ND		0.50		ug/L			12/17/16 10:41	1
Bromobenzene	ND		0.50		ug/L			12/17/16 10:41	1
Bromoform	ND		1.0		ug/L			12/17/16 10:41	1
Bromomethane	ND		0.50		ug/L			12/17/16 10:41	1
Carbon tetrachloride	ND		0.50		ug/L			12/17/16 10:41	1
Bromochloromethane	ND		0.50		ug/L			12/17/16 10:41	1
Chlorobenzene	ND		0.50		ug/L			12/17/16 10:41	1
Chloroethane	ND		1.0		ug/L			12/17/16 10:41	1
Chloroform	ND		0.50		ug/L			12/17/16 10:41	1
Chloromethane	ND		0.50		ug/L			12/17/16 10:41	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/17/16 10:41	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/17/16 10:41	1
Dibromochloromethane	ND		0.50		ug/L			12/17/16 10:41	1
Dibromomethane	ND		0.50		ug/L			12/17/16 10:41	1
Bromodichloromethane	ND		0.50		ug/L			12/17/16 10:41	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/17/16 10:41	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			12/17/16 10:41	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			12/17/16 10:41	1
Hexachlorobutadiene	ND		0.50		ug/L			12/17/16 10:41	1
Isopropylbenzene	ND		0.50		ug/L			12/17/16 10:41	1
m,p-Xylene	ND		1.0		ug/L			12/17/16 10:41	1
Methylene Chloride	ND		2.0		ug/L			12/17/16 10:41	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/17/16 10:41	1
Naphthalene	ND		1.0		ug/L			12/17/16 10:41	1
n-Butylbenzene	ND		1.0		ug/L			12/17/16 10:41	1
N-Propylbenzene	ND		0.50		ug/L			12/17/16 10:41	1
o-Xylene	ND		0.50		ug/L			12/17/16 10:41	1
p-Isopropyltoluene	ND		0.50		ug/L			12/17/16 10:41	1
sec-Butylbenzene	ND		0.50		ug/L			12/17/16 10:41	1
Styrene	ND		0.50		ug/L			12/17/16 10:41	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			12/17/16 10:41	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			12/17/16 10:41	1
tert-Butylbenzene	ND		0.50		ug/L			12/17/16 10:41	1
Tetrachloroethene	ND		0.50		ug/L			12/17/16 10:41	1
Toluene	ND		0.50		ug/L			12/17/16 10:41	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-376507/3
Matrix: Water
Analysis Batch: 376507

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/17/16 10:41	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/17/16 10:41	1
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			12/17/16 10:41	1
Trichloroethene	ND		0.50		ug/L			12/17/16 10:41	1
Trichlorofluoromethane	ND		0.50		ug/L			12/17/16 10:41	1
Vinyl chloride	ND		0.50		ug/L			12/17/16 10:41	1
Xylenes, Total	ND		1.0		ug/L			12/17/16 10:41	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/17/16 10:41	1
Ethylbenzene	ND		0.50		ug/L			12/17/16 10:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*12/17/16 10:41*	*1*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*12/17/16 10:41*	*1*
Toluene-d8 (Surr)	*113*		*80 - 128*		*12/17/16 10:41*	*1*

Lab Sample ID: LCS 440-376507/4
Matrix: Water
Analysis Batch: 376507

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	25.5		ug/L		102	60 - 141
1,1,1-Trichloroethane	25.0	24.5		ug/L		98	70 - 130
1,1,2,2-Tetrachloroethane	25.0	30.6		ug/L		123	63 - 130
1,1,2-Trichloroethane	25.0	28.3		ug/L		113	70 - 130
1,1-Dichloroethane	25.0	26.5		ug/L		106	64 - 130
1,1-Dichloroethene	25.0	24.7		ug/L		99	70 - 130
1,1-Dichloropropene	25.0	25.7		ug/L		103	70 - 130
1,2,3-Trichlorobenzene	25.0	26.9		ug/L		108	60 - 140
1,2,3-Trichloropropane	25.0	27.2		ug/L		109	63 - 130
1,2,4-Trichlorobenzene	25.0	26.9		ug/L		107	60 - 140
1,2,4-Trimethylbenzene	25.0	26.2		ug/L		105	70 - 135
1,2-Dibromo-3-Chloropropane	25.0	26.5		ug/L		106	52 - 140
1,2-Dichlorobenzene	25.0	26.9		ug/L		108	70 - 130
1,2-Dichloroethane	25.0	25.6		ug/L		103	57 - 138
1,2-Dichloropropane	25.0	28.3		ug/L		113	67 - 130
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	70 - 130
1,3-Dichloropropane	25.0	28.1		ug/L		112	70 - 130
1,4-Dichlorobenzene	25.0	27.4		ug/L		110	70 - 130
2,2-Dichloropropane	25.0	25.8		ug/L		103	68 - 141
2-Chlorotoluene	25.0	26.4		ug/L		106	70 - 130
4-Chlorotoluene	25.0	26.4		ug/L		106	70 - 130
Benzene	25.0	26.5		ug/L		106	68 - 130
Bromobenzene	25.0	25.4		ug/L		101	70 - 130
Bromoform	25.0	25.9		ug/L		104	60 - 148
Bromomethane	25.0	28.5		ug/L		114	64 - 139
Carbon tetrachloride	25.0	24.7		ug/L		99	60 - 150
Bromochloromethane	25.0	25.9		ug/L		104	70 - 130
Chlorobenzene	25.0	26.3		ug/L		105	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-376507/4
Matrix: Water
Analysis Batch: 376507

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	25.0	27.9		ug/L		112	64 - 135
Chloroform	25.0	25.9		ug/L		104	70 - 130
Chloromethane	25.0	30.8		ug/L		123	47 - 140
cis-1,2-Dichloroethene	25.0	27.9		ug/L		112	70 - 133
cis-1,3-Dichloropropene	25.0	27.8		ug/L		111	70 - 133
Dibromochloromethane	25.0	25.2		ug/L		101	69 - 145
Dibromomethane	25.0	26.0		ug/L		104	70 - 130
Bromodichloromethane	25.0	26.4		ug/L		106	70 - 132
Dichlorodifluoromethane	25.0	23.3		ug/L		93	29 - 150
Isopropyl Ether (DIPE)	25.0	28.3		ug/L		113	58 - 139
Ethyl-t-butyl ether (ETBE)	25.0	25.8		ug/L		103	60 - 136
Hexachlorobutadiene	25.0	24.0		ug/L		96	10 - 150
Isopropylbenzene	25.0	25.2		ug/L		101	70 - 136
m,p-Xylene	25.0	25.1		ug/L		100	70 - 130
Methylene Chloride	25.0	26.0		ug/L		104	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	25.4		ug/L		102	63 - 131
Naphthalene	25.0	27.4		ug/L		110	60 - 140
n-Butylbenzene	25.0	27.5		ug/L		110	65 - 150
N-Propylbenzene	25.0	26.5		ug/L		106	67 - 139
o-Xylene	25.0	25.5		ug/L		102	70 - 130
p-Isopropyltoluene	25.0	26.4		ug/L		105	70 - 132
sec-Butylbenzene	25.0	26.4		ug/L		106	70 - 138
Styrene	25.0	24.1		ug/L		96	70 - 134
Tert-amyl-methyl ether (TAME)	25.0	25.1		ug/L		100	57 - 139
tert-Butyl alcohol (TBA)	250	273		ug/L		109	70 - 130
tert-Butylbenzene	25.0	25.5		ug/L		102	70 - 130
Tetrachloroethene	25.0	23.8		ug/L		95	70 - 130
Toluene	25.0	26.5		ug/L		106	70 - 130
trans-1,2-Dichloroethene	25.0	28.1		ug/L		112	70 - 130
trans-1,3-Dichloropropene	25.0	25.8		ug/L		103	70 - 132
1,2-Dibromoethane (EDB)	25.0	27.6		ug/L		110	70 - 130
Trichloroethene	25.0	25.2		ug/L		101	70 - 130
Trichlorofluoromethane	25.0	28.6		ug/L		114	60 - 150
Vinyl chloride	25.0	31.0		ug/L		124	59 - 133
1,3,5-Trimethylbenzene	25.0	26.0		ug/L		104	70 - 136
Ethylbenzene	25.0	25.4		ug/L		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*76 - 132*
Toluene-d8 (Surr)	*108*		*80 - 128*

Lab Sample ID: 440-169356-A-1 MS
Matrix: Water
Analysis Batch: 376507

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	28.6		ug/L		114	60 - 149

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-169356-A-1 MS
Matrix: Water
Analysis Batch: 376507

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		25.0	26.6		ug/L		106	70 - 130
1,1,2,2-Tetrachloroethane	ND	F1	25.0	32.9	F1	ug/L		132	63 - 130
1,1,2-Trichloroethane	ND		25.0	31.1		ug/L		124	70 - 130
1,1-Dichloroethane	ND		25.0	28.4		ug/L		114	65 - 130
1,1-Dichloroethene	ND		25.0	27.2		ug/L		109	70 - 130
1,1-Dichloropropene	ND		25.0	27.1		ug/L		108	64 - 130
1,2,3-Trichlorobenzene	ND		25.0	29.7		ug/L		119	60 - 140
1,2,3-Trichloropropane	ND		25.0	28.8		ug/L		115	60 - 130
1,2,4-Trichlorobenzene	ND		25.0	29.7		ug/L		119	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	28.2		ug/L		113	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	27.1		ug/L		108	48 - 140
1,2-Dichlorobenzene	ND		25.0	29.9		ug/L		120	70 - 130
1,2-Dichloroethane	ND		25.0	28.1		ug/L		113	56 - 146
1,2-Dichloropropane	ND		25.0	31.1		ug/L		124	69 - 130
1,3-Dichlorobenzene	ND		25.0	28.8		ug/L		115	70 - 130
1,3-Dichloropropane	ND		25.0	30.3		ug/L		121	70 - 130
1,4-Dichlorobenzene	ND		25.0	29.9		ug/L		120	70 - 130
2,2-Dichloropropane	ND		25.0	28.0		ug/L		112	69 - 138
2-Chlorotoluene	ND		25.0	28.7		ug/L		115	70 - 130
4-Chlorotoluene	ND		25.0	29.5		ug/L		118	70 - 130
Benzene	ND		25.0	28.7		ug/L		115	66 - 130
Bromobenzene	ND		25.0	27.8		ug/L		111	70 - 130
Bromoform	ND		25.0	27.6		ug/L		110	59 - 150
Bromomethane	ND		25.0	29.2		ug/L		117	62 - 131
Carbon tetrachloride	ND		25.0	27.0		ug/L		108	60 - 150
Bromochloromethane	ND		25.0	28.6		ug/L		115	70 - 130
Chlorobenzene	ND		25.0	29.0		ug/L		116	70 - 130
Chloroethane	ND		25.0	31.3		ug/L		125	68 - 130
Chloroform	ND		25.0	28.9		ug/L		116	70 - 130
Chloromethane	ND		25.0	31.6		ug/L		126	39 - 144
cis-1,2-Dichloroethene	ND		25.0	30.1		ug/L		121	70 - 130
cis-1,3-Dichloropropene	ND		25.0	31.3		ug/L		125	70 - 133
Dibromochloromethane	ND		25.0	27.8		ug/L		111	70 - 148
Dibromomethane	ND		25.0	28.1		ug/L		113	70 - 130
Bromodichloromethane	ND		25.0	29.0		ug/L		116	70 - 138
Dichlorodifluoromethane	ND		25.0	21.0		ug/L		84	25 - 142
Isopropyl Ether (DIPE)	ND		25.0	31.3		ug/L		125	64 - 138
Ethyl-t-butyl ether (ETBE)	ND		25.0	28.4		ug/L		114	70 - 130
Hexachlorobutadiene	ND		25.0	26.0		ug/L		104	10 - 150
Isopropylbenzene	ND		25.0	27.6		ug/L		110	70 - 132
m,p-Xylene	ND		25.0	27.8		ug/L		111	70 - 133
Methylene Chloride	ND		25.0	28.1		ug/L		113	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	27.0		ug/L		108	70 - 130
Naphthalene	ND		25.0	29.3		ug/L		117	60 - 140
n-Butylbenzene	ND		25.0	29.6		ug/L		118	61 - 149
N-Propylbenzene	ND		25.0	28.9		ug/L		115	66 - 135
o-Xylene	ND		25.0	27.7		ug/L		111	70 - 133
p-Isopropyltoluene	ND		25.0	28.7		ug/L		115	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-169356-A-1 MS
Matrix: Water
Analysis Batch: 376507

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
sec-Butylbenzene	ND		25.0	28.2		ug/L		113	67 - 134
Styrene	ND		25.0	26.5		ug/L		106	29 - 150
Tert-amyl-methyl ether (TAME)	ND		25.0	27.4		ug/L		110	68 - 133
tert-Butyl alcohol (TBA)	ND		250	309		ug/L		124	70 - 130
tert-Butylbenzene	ND		25.0	28.2		ug/L		113	70 - 130
Tetrachloroethene	ND		25.0	26.1		ug/L		104	70 - 137
Toluene	ND		25.0	29.2		ug/L		117	70 - 130
trans-1,2-Dichloroethene	ND		25.0	30.1		ug/L		120	70 - 130
trans-1,3-Dichloropropene	ND		25.0	28.7		ug/L		115	70 - 138
1,2-Dibromoethane (EDB)	ND		25.0	29.6		ug/L		119	70 - 131
Trichloroethene	ND		25.0	26.8		ug/L		107	70 - 130
Trichlorofluoromethane	ND		25.0	29.2		ug/L		117	60 - 150
Vinyl chloride	ND		25.0	31.0		ug/L		124	50 - 137
1,3,5-Trimethylbenzene	ND		25.0	28.7		ug/L		115	70 - 130
Ethylbenzene	ND		25.0	27.7		ug/L		111	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*108*		*76 - 132*
Toluene-d8 (Surr)	*110*		*80 - 128*

Lab Sample ID: 440-169356-A-1 MSD
Matrix: Water
Analysis Batch: 376507

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	26.8		ug/L		107	60 - 149	6	20
1,1,1-Trichloroethane	ND		25.0	25.8		ug/L		103	70 - 130	3	20
1,1,2,2-Tetrachloroethane	ND	F1	25.0	30.8		ug/L		123	63 - 130	7	30
1,1,2-Trichloroethane	ND		25.0	28.4		ug/L		113	70 - 130	9	25
1,1-Dichloroethane	ND		25.0	28.0		ug/L		112	65 - 130	1	20
1,1-Dichloroethene	ND		25.0	28.0		ug/L		112	70 - 130	3	20
1,1-Dichloropropene	ND		25.0	26.0		ug/L		104	64 - 130	4	20
1,2,3-Trichlorobenzene	ND		25.0	28.4		ug/L		113	60 - 140	5	20
1,2,3-Trichloropropane	ND		25.0	26.2		ug/L		105	60 - 130	9	30
1,2,4-Trichlorobenzene	ND		25.0	27.7		ug/L		111	60 - 140	7	20
1,2,4-Trimethylbenzene	ND		25.0	27.5		ug/L		110	70 - 130	3	25
1,2-Dibromo-3-Chloropropane	ND		25.0	27.0		ug/L		108	48 - 140	0	30
1,2-Dichlorobenzene	ND		25.0	27.8		ug/L		111	70 - 130	7	20
1,2-Dichloroethane	ND		25.0	26.8		ug/L		107	56 - 146	5	20
1,2-Dichloropropane	ND		25.0	30.1		ug/L		120	69 - 130	3	20
1,3-Dichlorobenzene	ND		25.0	26.3		ug/L		105	70 - 130	9	20
1,3-Dichloropropane	ND		25.0	27.8		ug/L		111	70 - 130	9	25
1,4-Dichlorobenzene	ND		25.0	27.7		ug/L		111	70 - 130	7	20
2,2-Dichloropropane	ND		25.0	27.1		ug/L		108	69 - 138	3	25
2-Chlorotoluene	ND		25.0	26.7		ug/L		107	70 - 130	8	20
4-Chlorotoluene	ND		25.0	26.9		ug/L		108	70 - 130	9	20
Benzene	ND		25.0	28.0		ug/L		112	66 - 130	3	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-169356-A-1 MSD
Matrix: Water
Analysis Batch: 376507

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	ND		25.0	25.8		ug/L		103	70 - 130	7	20
Bromoform	ND		25.0	25.5		ug/L		102	59 - 150	8	25
Bromomethane	ND		25.0	29.7		ug/L		119	62 - 131	2	25
Carbon tetrachloride	ND		25.0	25.8		ug/L		103	60 - 150	5	25
Bromochloromethane	ND		25.0	27.1		ug/L		109	70 - 130	5	25
Chlorobenzene	ND		25.0	27.2		ug/L		109	70 - 130	6	20
Chloroethane	ND		25.0	30.7		ug/L		123	68 - 130	2	25
Chloroform	ND		25.0	27.8		ug/L		111	70 - 130	4	20
Chloromethane	ND		25.0	30.8		ug/L		123	39 - 144	2	25
cis-1,2-Dichloroethene	ND		25.0	29.1		ug/L		116	70 - 130	3	20
cis-1,3-Dichloropropene	ND		25.0	28.4		ug/L		114	70 - 133	10	20
Dibromochloromethane	ND		25.0	25.7		ug/L		103	70 - 148	8	25
Dibromomethane	ND		25.0	26.4		ug/L		106	70 - 130	6	25
Bromodichloromethane	ND		25.0	27.6		ug/L		110	70 - 138	5	20
Dichlorodifluoromethane	ND		25.0	21.7		ug/L		87	25 - 142	3	30
Isopropyl Ether (DIPE)	ND		25.0	29.5		ug/L		118	64 - 138	6	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	27.4		ug/L		110	70 - 130	3	25
Hexachlorobutadiene	ND		25.0	25.4		ug/L		102	10 - 150	2	20
Isopropylbenzene	ND		25.0	25.8		ug/L		103	70 - 132	7	20
m,p-Xylene	ND		25.0	25.7		ug/L		103	70 - 133	8	25
Methylene Chloride	ND		25.0	27.8		ug/L		111	52 - 130	1	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	26.5		ug/L		106	70 - 130	2	25
Naphthalene	ND		25.0	27.8		ug/L		111	60 - 140	5	30
n-Butylbenzene	ND		25.0	27.7		ug/L		111	61 - 149	7	20
N-Propylbenzene	ND		25.0	26.7		ug/L		107	66 - 135	8	20
o-Xylene	ND		25.0	26.1		ug/L		105	70 - 133	6	20
p-Isopropyltoluene	ND		25.0	27.0		ug/L		108	70 - 130	6	20
sec-Butylbenzene	ND		25.0	26.6		ug/L		107	67 - 134	6	20
Styrene	ND		25.0	24.5		ug/L		98	29 - 150	8	35
Tert-amyl-methyl ether (TAME)	ND		25.0	26.6		ug/L		106	68 - 133	3	30
tert-Butyl alcohol (TBA)	ND		250	294		ug/L		117	70 - 130	5	25
tert-Butylbenzene	ND		25.0	25.9		ug/L		104	70 - 130	8	20
Tetrachloroethene	ND		25.0	24.2		ug/L		97	70 - 137	7	20
Toluene	ND		25.0	26.7		ug/L		107	70 - 130	9	20
trans-1,2-Dichloroethene	ND		25.0	29.5		ug/L		118	70 - 130	2	20
trans-1,3-Dichloropropene	ND		25.0	27.3		ug/L		109	70 - 138	5	25
1,2-Dibromoethane (EDB)	ND		25.0	27.2		ug/L		109	70 - 131	9	25
Trichloroethene	ND		25.0	26.1		ug/L		104	70 - 130	2	20
Trichlorofluoromethane	ND		25.0	28.8		ug/L		115	60 - 150	1	25
Vinyl chloride	ND		25.0	31.3		ug/L		125	50 - 137	1	30
1,3,5-Trimethylbenzene	ND		25.0	27.0		ug/L		108	70 - 130	6	20
Ethylbenzene	ND		25.0	26.1		ug/L		104	70 - 130	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*76 - 132*
Toluene-d8 (Surr)	*106*		*80 - 128*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-376682/3
Matrix: Water
Analysis Batch: 376682

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		0.50		ug/L			12/19/16 08:57	1
1,1,1-Trichloroethane	ND		0.50		ug/L			12/19/16 08:57	1
1,1,2,2-Tetrachloroethane	ND		0.50		ug/L			12/19/16 08:57	1
1,1,2-Trichloroethane	ND		0.50		ug/L			12/19/16 08:57	1
1,1-Dichloroethane	ND		0.50		ug/L			12/19/16 08:57	1
1,1-Dichloroethene	ND		0.50		ug/L			12/19/16 08:57	1
1,1-Dichloropropene	ND		0.50		ug/L			12/19/16 08:57	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			12/19/16 08:57	1
1,2,3-Trichloropropane	ND		1.0		ug/L			12/19/16 08:57	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			12/19/16 08:57	1
1,2,4-Trimethylbenzene	ND		0.50		ug/L			12/19/16 08:57	1
1,2-Dibromo-3-Chloropropane	ND		1.0		ug/L			12/19/16 08:57	1
1,2-Dichlorobenzene	ND		0.50		ug/L			12/19/16 08:57	1
1,2-Dichloroethane	ND		0.50		ug/L			12/19/16 08:57	1
1,2-Dichloropropane	ND		0.50		ug/L			12/19/16 08:57	1
1,3-Dichlorobenzene	ND		0.50		ug/L			12/19/16 08:57	1
1,3-Dichloropropane	ND		0.50		ug/L			12/19/16 08:57	1
1,4-Dichlorobenzene	ND		0.50		ug/L			12/19/16 08:57	1
2,2-Dichloropropane	ND		1.0		ug/L			12/19/16 08:57	1
2-Chlorotoluene	ND		0.50		ug/L			12/19/16 08:57	1
4-Chlorotoluene	ND		0.50		ug/L			12/19/16 08:57	1
Benzene	ND		0.50		ug/L			12/19/16 08:57	1
Bromobenzene	ND		0.50		ug/L			12/19/16 08:57	1
Bromoform	ND		1.0		ug/L			12/19/16 08:57	1
Bromomethane	ND		0.50		ug/L			12/19/16 08:57	1
Carbon tetrachloride	ND		0.50		ug/L			12/19/16 08:57	1
Bromochloromethane	ND		0.50		ug/L			12/19/16 08:57	1
Chlorobenzene	ND		0.50		ug/L			12/19/16 08:57	1
Chloroethane	ND		1.0		ug/L			12/19/16 08:57	1
Chloroform	ND		0.50		ug/L			12/19/16 08:57	1
Chloromethane	ND		0.50		ug/L			12/19/16 08:57	1
cis-1,2-Dichloroethene	ND		0.50		ug/L			12/19/16 08:57	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			12/19/16 08:57	1
Dibromochloromethane	ND		0.50		ug/L			12/19/16 08:57	1
Dibromomethane	ND		0.50		ug/L			12/19/16 08:57	1
Bromodichloromethane	ND		0.50		ug/L			12/19/16 08:57	1
Dichlorodifluoromethane	ND		1.0		ug/L			12/19/16 08:57	1
Isopropyl Ether (DIPE)	ND		0.50		ug/L			12/19/16 08:57	1
Ethyl-t-butyl ether (ETBE)	ND		0.50		ug/L			12/19/16 08:57	1
Hexachlorobutadiene	ND		0.50		ug/L			12/19/16 08:57	1
Isopropylbenzene	ND		0.50		ug/L			12/19/16 08:57	1
m,p-Xylene	ND		1.0		ug/L			12/19/16 08:57	1
Methylene Chloride	ND		2.0		ug/L			12/19/16 08:57	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50		ug/L			12/19/16 08:57	1
Naphthalene	ND		1.0		ug/L			12/19/16 08:57	1
n-Butylbenzene	ND		1.0		ug/L			12/19/16 08:57	1
N-Propylbenzene	ND		0.50		ug/L			12/19/16 08:57	1
o-Xylene	ND		0.50		ug/L			12/19/16 08:57	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-376682/3
Matrix: Water
Analysis Batch: 376682

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		0.50		ug/L			12/19/16 08:57	1
sec-Butylbenzene	ND		0.50		ug/L			12/19/16 08:57	1
Styrene	ND		0.50		ug/L			12/19/16 08:57	1
Tert-amyl-methyl ether (TAME)	ND		0.50		ug/L			12/19/16 08:57	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			12/19/16 08:57	1
tert-Butylbenzene	ND		0.50		ug/L			12/19/16 08:57	1
Tetrachloroethene	ND		0.50		ug/L			12/19/16 08:57	1
Toluene	ND		0.50		ug/L			12/19/16 08:57	1
trans-1,2-Dichloroethene	ND		0.50		ug/L			12/19/16 08:57	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			12/19/16 08:57	1
1,2-Dibromoethane (EDB)	ND		0.50		ug/L			12/19/16 08:57	1
Trichloroethene	ND		0.50		ug/L			12/19/16 08:57	1
Trichlorofluoromethane	ND		0.50		ug/L			12/19/16 08:57	1
Vinyl chloride	ND		0.50		ug/L			12/19/16 08:57	1
Xylenes, Total	ND		1.0		ug/L			12/19/16 08:57	1
1,3,5-Trimethylbenzene	ND		0.50		ug/L			12/19/16 08:57	1
Ethylbenzene	ND		0.50		ug/L			12/19/16 08:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/19/16 08:57*	*1*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*12/19/16 08:57*	*1*
Toluene-d8 (Surr)	*113*		*80 - 128*		*12/19/16 08:57*	*1*

Lab Sample ID: LCS 440-376682/4
Matrix: Water
Analysis Batch: 376682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	27.1		ug/L		109	60 - 141
1,1,1-Trichloroethane	25.0	24.9		ug/L		100	70 - 130
1,1,2,2-Tetrachloroethane	25.0	29.4		ug/L		117	63 - 130
1,1,2-Trichloroethane	25.0	27.7		ug/L		111	70 - 130
1,1-Dichloroethane	25.0	25.9		ug/L		104	64 - 130
1,1-Dichloroethene	25.0	26.7		ug/L		107	70 - 130
1,1-Dichloropropene	25.0	25.0		ug/L		100	70 - 130
1,2,3-Trichlorobenzene	25.0	29.8		ug/L		119	60 - 140
1,2,3-Trichloropropane	25.0	27.7		ug/L		111	63 - 130
1,2,4-Trichlorobenzene	25.0	28.9		ug/L		116	60 - 140
1,2,4-Trimethylbenzene	25.0	27.1		ug/L		108	70 - 135
1,2-Dibromo-3-Chloropropane	25.0	26.2		ug/L		105	52 - 140
1,2-Dichlorobenzene	25.0	27.8		ug/L		111	70 - 130
1,2-Dichloroethane	25.0	24.5		ug/L		98	57 - 138
1,2-Dichloropropane	25.0	27.1		ug/L		109	67 - 130
1,3-Dichlorobenzene	25.0	27.0		ug/L		108	70 - 130
1,3-Dichloropropane	25.0	26.4		ug/L		106	70 - 130
1,4-Dichlorobenzene	25.0	28.1		ug/L		112	70 - 130
2,2-Dichloropropane	25.0	26.2		ug/L		105	68 - 141
2-Chlorotoluene	25.0	26.5		ug/L		106	70 - 130

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-376682/4
Matrix: Water
Analysis Batch: 376682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	25.0	27.7		ug/L		111	70 - 130
Benzene	25.0	25.9		ug/L		104	68 - 130
Bromobenzene	25.0	26.3		ug/L		105	70 - 130
Bromoform	25.0	26.4		ug/L		106	60 - 148
Bromomethane	25.0	29.2		ug/L		117	64 - 139
Carbon tetrachloride	25.0	25.4		ug/L		102	60 - 150
Bromochloromethane	25.0	25.8		ug/L		103	70 - 130
Chlorobenzene	25.0	26.9		ug/L		107	70 - 130
Chloroethane	25.0	29.7		ug/L		119	64 - 135
Chloroform	25.0	25.3		ug/L		101	70 - 130
Chloromethane	25.0	30.5		ug/L		122	47 - 140
cis-1,2-Dichloroethene	25.0	27.1		ug/L		108	70 - 133
cis-1,3-Dichloropropene	25.0	27.4		ug/L		110	70 - 133
Dibromochloromethane	25.0	25.7		ug/L		103	69 - 145
Dibromomethane	25.0	24.8		ug/L		99	70 - 130
Bromodichloromethane	25.0	26.2		ug/L		105	70 - 132
Dichlorodifluoromethane	25.0	24.8		ug/L		99	29 - 150
Isopropyl Ether (DIPE)	25.0	27.1		ug/L		108	58 - 139
Ethyl-t-butyl ether (ETBE)	25.0	24.9		ug/L		100	60 - 136
Hexachlorobutadiene	25.0	26.8		ug/L		107	10 - 150
Isopropylbenzene	25.0	26.7		ug/L		107	70 - 136
m,p-Xylene	25.0	25.7		ug/L		103	70 - 130
Methylene Chloride	25.0	24.4		ug/L		98	52 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	24.3		ug/L		97	63 - 131
Naphthalene	25.0	28.6		ug/L		114	60 - 140
n-Butylbenzene	25.0	27.9		ug/L		112	65 - 150
N-Propylbenzene	25.0	26.8		ug/L		107	67 - 139
o-Xylene	25.0	25.5		ug/L		102	70 - 130
p-Isopropyltoluene	25.0	27.2		ug/L		109	70 - 132
sec-Butylbenzene	25.0	27.2		ug/L		109	70 - 138
Styrene	25.0	24.8		ug/L		99	70 - 134
Tert-amyl-methyl ether (TAME)	25.0	24.7		ug/L		99	57 - 139
tert-Butyl alcohol (TBA)	250	302		ug/L		121	70 - 130
tert-Butylbenzene	25.0	26.9		ug/L		108	70 - 130
Tetrachloroethene	25.0	24.1		ug/L		97	70 - 130
Toluene	25.0	26.0		ug/L		104	70 - 130
trans-1,2-Dichloroethene	25.0	27.5		ug/L		110	70 - 130
trans-1,3-Dichloropropene	25.0	26.1		ug/L		104	70 - 132
1,2-Dibromoethane (EDB)	25.0	26.3		ug/L		105	70 - 130
Trichloroethene	25.0	24.8		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	28.9		ug/L		116	60 - 150
Vinyl chloride	25.0	29.2		ug/L		117	59 - 133
1,3,5-Trimethylbenzene	25.0	26.9		ug/L		108	70 - 136
Ethylbenzene	25.0	25.9		ug/L		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*103*		*76 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-376682/4
Matrix: Water
Analysis Batch: 376682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	109		80 - 128

Lab Sample ID: 440-169211-A-1 MS
Matrix: Water
Analysis Batch: 376682

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	25.0		ug/L		100	60 - 149
1,1,1-Trichloroethane	ND		25.0	24.8		ug/L		99	70 - 130
1,1,2,2-Tetrachloroethane	ND		25.0	29.2		ug/L		117	63 - 130
1,1,2-Trichloroethane	ND		25.0	26.8		ug/L		107	70 - 130
1,1-Dichloroethane	ND		25.0	26.5		ug/L		106	65 - 130
1,1-Dichloroethene	ND		25.0	25.7		ug/L		103	70 - 130
1,1-Dichloropropene	ND		25.0	25.7		ug/L		103	64 - 130
1,2,3-Trichlorobenzene	ND		25.0	28.0		ug/L		112	60 - 140
1,2,3-Trichloropropane	ND		25.0	25.9		ug/L		104	60 - 130
1,2,4-Trichlorobenzene	ND		25.0	27.6		ug/L		110	60 - 140
1,2,4-Trimethylbenzene	ND		25.0	25.4		ug/L		102	70 - 130
1,2-Dibromo-3-Chloropropane	ND		25.0	25.3		ug/L		101	48 - 140
1,2-Dichlorobenzene	ND		25.0	27.2		ug/L		109	70 - 130
1,2-Dichloroethane	ND		25.0	27.3		ug/L		109	56 - 146
1,2-Dichloropropane	ND		25.0	29.2		ug/L		117	69 - 130
1,3-Dichlorobenzene	ND		25.0	25.5		ug/L		102	70 - 130
1,3-Dichloropropane	ND		25.0	26.6		ug/L		107	70 - 130
1,4-Dichlorobenzene	ND		25.0	27.0		ug/L		108	70 - 130
2,2-Dichloropropane	ND		25.0	25.8		ug/L		103	69 - 138
2-Chlorotoluene	ND		25.0	25.8		ug/L		103	70 - 130
4-Chlorotoluene	ND		25.0	26.3		ug/L		105	70 - 130
Benzene	ND		25.0	26.8		ug/L		107	66 - 130
Bromobenzene	ND		25.0	25.4		ug/L		102	70 - 130
Bromoform	ND		25.0	24.6		ug/L		98	59 - 150
Bromomethane	ND		25.0	28.2		ug/L		113	62 - 131
Carbon tetrachloride	ND		25.0	24.7		ug/L		99	60 - 150
Bromochloromethane	ND		25.0	27.2		ug/L		109	70 - 130
Chlorobenzene	ND		25.0	26.2		ug/L		105	70 - 130
Chloroethane	ND		25.0	29.4		ug/L		117	68 - 130
Chloroform	ND		25.0	27.4		ug/L		108	70 - 130
Chloromethane	ND		25.0	28.2		ug/L		113	39 - 144
cis-1,2-Dichloroethene	ND		25.0	28.4		ug/L		113	70 - 130
cis-1,3-Dichloropropene	ND		25.0	27.3		ug/L		109	70 - 133
Dibromochloromethane	ND		25.0	25.1		ug/L		100	70 - 148
Dibromomethane	ND		25.0	26.1		ug/L		104	70 - 130
Bromodichloromethane	ND		25.0	27.7		ug/L		111	70 - 138
Dichlorodifluoromethane	ND		25.0	18.7		ug/L		75	25 - 142
Isopropyl Ether (DIPE)	ND		25.0	28.6		ug/L		114	64 - 138
Ethyl-t-butyl ether (ETBE)	ND		25.0	27.6		ug/L		110	70 - 130
Hexachlorobutadiene	ND		25.0	24.2		ug/L		97	10 - 150
Isopropylbenzene	ND		25.0	24.4		ug/L		97	70 - 132

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-169211-A-1 MS
Matrix: Water
Analysis Batch: 376682

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
m,p-Xylene	ND		25.0	24.4		ug/L		98	70 - 133
Methylene Chloride	ND		25.0	24.9		ug/L		100	52 - 130
Methyl-t-Butyl Ether (MTBE)	ND		25.0	26.5		ug/L		106	70 - 130
Naphthalene	ND		25.0	27.3		ug/L		109	60 - 140
n-Butylbenzene	ND		25.0	26.3		ug/L		105	61 - 149
N-Propylbenzene	ND		25.0	25.7		ug/L		103	66 - 135
o-Xylene	ND		25.0	24.9		ug/L		100	70 - 133
p-Isopropyltoluene	ND		25.0	25.5		ug/L		102	70 - 130
sec-Butylbenzene	ND		25.0	25.1		ug/L		101	67 - 134
Styrene	ND		25.0	23.5		ug/L		94	29 - 150
Tert-amyl-methyl ether (TAME)	ND		25.0	26.2		ug/L		105	68 - 133
tert-Butyl alcohol (TBA)	ND		250	274		ug/L		109	70 - 130
tert-Butylbenzene	ND		25.0	25.2		ug/L		101	70 - 130
Tetrachloroethene	ND		25.0	23.0		ug/L		92	70 - 137
Toluene	ND		25.0	25.5		ug/L		102	70 - 130
trans-1,2-Dichloroethene	ND		25.0	27.5		ug/L		110	70 - 130
trans-1,3-Dichloropropene	ND		25.0	26.1		ug/L		104	70 - 138
1,2-Dibromoethane (EDB)	ND		25.0	25.8		ug/L		103	70 - 131
Trichloroethene	7.1		25.0	32.3		ug/L		101	70 - 130
Trichlorofluoromethane	ND		25.0	27.9		ug/L		110	60 - 150
Vinyl chloride	ND		25.0	27.7		ug/L		111	50 - 137
1,3,5-Trimethylbenzene	ND		25.0	25.6		ug/L		102	70 - 130
Ethylbenzene	ND		25.0	24.8		ug/L		99	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*76 - 132*
Toluene-d8 (Surr)	*104*		*80 - 128*

Lab Sample ID: 440-169211-A-1 MSD
Matrix: Water
Analysis Batch: 376682

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	26.7		ug/L		107	60 - 149	7	20
1,1,1-Trichloroethane	ND		25.0	26.5		ug/L		106	70 - 130	7	20
1,1,2,2-Tetrachloroethane	ND		25.0	29.7		ug/L		119	63 - 130	2	30
1,1,2-Trichloroethane	ND		25.0	27.1		ug/L		108	70 - 130	1	25
1,1-Dichloroethane	ND		25.0	27.4		ug/L		110	65 - 130	3	20
1,1-Dichloroethene	ND		25.0	27.2		ug/L		109	70 - 130	6	20
1,1-Dichloropropene	ND		25.0	26.9		ug/L		107	64 - 130	4	20
1,2,3-Trichlorobenzene	ND		25.0	28.2		ug/L		113	60 - 140	1	20
1,2,3-Trichloropropane	ND		25.0	28.3		ug/L		113	60 - 130	9	30
1,2,4-Trichlorobenzene	ND		25.0	28.6		ug/L		114	60 - 140	4	20
1,2,4-Trimethylbenzene	ND		25.0	26.9		ug/L		108	70 - 130	6	25
1,2-Dibromo-3-Chloropropane	ND		25.0	25.1		ug/L		100	48 - 140	1	30
1,2-Dichlorobenzene	ND		25.0	28.0		ug/L		112	70 - 130	3	20
1,2-Dichloroethane	ND		25.0	27.2		ug/L		109	56 - 146	0	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-169211-A-1 MSD
Matrix: Water
Analysis Batch: 376682

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichloropropane	ND		25.0	30.1		ug/L		120	69 - 130	3	20
1,3-Dichlorobenzene	ND		25.0	26.9		ug/L		108	70 - 130	5	20
1,3-Dichloropropane	ND		25.0	28.1		ug/L		113	70 - 130	6	25
1,4-Dichlorobenzene	ND		25.0	27.9		ug/L		111	70 - 130	3	20
2,2-Dichloropropane	ND		25.0	27.6		ug/L		110	69 - 138	7	25
2-Chlorotoluene	ND		25.0	26.9		ug/L		107	70 - 130	4	20
4-Chlorotoluene	ND		25.0	27.1		ug/L		109	70 - 130	3	20
Benzene	ND		25.0	27.1		ug/L		109	66 - 130	1	20
Bromobenzene	ND		25.0	26.2		ug/L		105	70 - 130	3	20
Bromoform	ND		25.0	25.3		ug/L		101	59 - 150	3	25
Bromomethane	ND		25.0	27.7		ug/L		111	62 - 131	2	25
Carbon tetrachloride	ND		25.0	26.1		ug/L		104	60 - 150	6	25
Bromochloromethane	ND		25.0	27.4		ug/L		110	70 - 130	1	25
Chlorobenzene	ND		25.0	27.4		ug/L		110	70 - 130	5	20
Chloroethane	ND		25.0	30.6		ug/L		123	68 - 130	4	25
Chloroform	ND		25.0	28.4		ug/L		112	70 - 130	4	20
Chloromethane	ND		25.0	29.0		ug/L		116	39 - 144	3	25
cis-1,2-Dichloroethene	ND		25.0	29.5		ug/L		118	70 - 130	4	20
cis-1,3-Dichloropropene	ND		25.0	28.3		ug/L		113	70 - 133	4	20
Dibromochloromethane	ND		25.0	25.3		ug/L		101	70 - 148	1	25
Dibromomethane	ND		25.0	26.5		ug/L		106	70 - 130	1	25
Bromodichloromethane	ND		25.0	27.7		ug/L		111	70 - 138	0	20
Dichlorodifluoromethane	ND		25.0	20.9		ug/L		84	25 - 142	11	30
Isopropyl Ether (DIPE)	ND		25.0	29.2		ug/L		117	64 - 138	2	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	27.8		ug/L		111	70 - 130	1	25
Hexachlorobutadiene	ND		25.0	25.3		ug/L		101	10 - 150	4	20
Isopropylbenzene	ND		25.0	26.0		ug/L		104	70 - 132	6	20
m,p-Xylene	ND		25.0	26.1		ug/L		104	70 - 133	7	25
Methylene Chloride	ND		25.0	25.8		ug/L		103	52 - 130	3	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	26.8		ug/L		107	70 - 130	1	25
Naphthalene	ND		25.0	28.4		ug/L		114	60 - 140	4	30
n-Butylbenzene	ND		25.0	27.4		ug/L		110	61 - 149	4	20
N-Propylbenzene	ND		25.0	26.9		ug/L		108	66 - 135	4	20
o-Xylene	ND		25.0	26.1		ug/L		104	70 - 133	5	20
p-Isopropyltoluene	ND		25.0	27.1		ug/L		108	70 - 130	6	20
sec-Butylbenzene	ND		25.0	26.9		ug/L		107	67 - 134	7	20
Styrene	ND		25.0	24.7		ug/L		99	29 - 150	5	35
Tert-amyl-methyl ether (TAME)	ND		25.0	26.9		ug/L		108	68 - 133	2	30
tert-Butyl alcohol (TBA)	ND		250	292		ug/L		117	70 - 130	7	25
tert-Butylbenzene	ND		25.0	26.7		ug/L		107	70 - 130	6	20
Tetrachloroethene	ND		25.0	24.4		ug/L		98	70 - 137	6	20
Toluene	ND		25.0	26.9		ug/L		107	70 - 130	5	20
trans-1,2-Dichloroethene	ND		25.0	29.3		ug/L		117	70 - 130	6	20
trans-1,3-Dichloropropene	ND		25.0	27.7		ug/L		111	70 - 138	6	25
1,2-Dibromoethane (EDB)	ND		25.0	27.0		ug/L		108	70 - 131	4	25
Trichloroethene	7.1		25.0	33.1		ug/L		104	70 - 130	2	20
Trichlorofluoromethane	ND		25.0	29.1		ug/L		115	60 - 150	4	25
Vinyl chloride	ND		25.0	29.9		ug/L		120	50 - 137	8	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-169211-A-1 MSD
Matrix: Water
Analysis Batch: 376682

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3,5-Trimethylbenzene	ND		25.0	26.4		ug/L		106	70 - 130	3	20
Ethylbenzene	ND		25.0	26.0		ug/L		104	70 - 130	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*76 - 132*
Toluene-d8 (Surr)	*106*		*80 - 128*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 440-376268/5
Matrix: Solid
Analysis Batch: 376268

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			12/16/16 10:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*65 - 140*		*12/16/16 10:59*	*1*

Lab Sample ID: LCS 440-376268/3
Matrix: Solid
Analysis Batch: 376268

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			1600	1370		ug/Kg		86	70 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*65 - 140*

Lab Sample ID: LCSD 440-376268/4
Matrix: Solid
Analysis Batch: 376268

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			1600	1380		ug/Kg		86	70 - 135	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*65 - 140*

Lab Sample ID: 440-168861-F-4 MS
Matrix: Solid
Analysis Batch: 376268

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)	ND		1590	970		ug/Kg		61	60 - 140		

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: 440-168861-F-4 MS
Matrix: Solid
Analysis Batch: 376268

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		65 - 140

Lab Sample ID: 440-168861-F-4 MSD
Matrix: Solid
Analysis Batch: 376268

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	ND		1580	1020		ug/Kg		64	60 - 140	5	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		65 - 140

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-376128/1-A
Matrix: Solid
Analysis Batch: 376336

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 376128

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		12/15/16 16:09	12/16/16 13:25	1
C23-C40	ND		5.0		mg/Kg		12/15/16 16:09	12/16/16 13:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane	87		40 - 140	12/15/16 16:09	12/16/16 13:25	1

Lab Sample ID: LCS 440-376128/2-A
Matrix: Solid
Analysis Batch: 376336

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 376128

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28			66.7	54.0		mg/Kg		81	45 - 115		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane	89		40 - 140

Lab Sample ID: 440-168951-A-1-A MS
Matrix: Solid
Analysis Batch: 376540

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 376128

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28	300	F2	66.4	553	4	mg/Kg		386	40 - 120		

Surrogate	MS %Recovery	MS Qualifier	Limits
n-Octacosane	78		40 - 140

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 440-168951-A-1-B MSD
Matrix: Solid
Analysis Batch: 376540

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 376128

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	300	F2	66.4	359	4 F2	mg/Kg		94	40 - 120	42	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*78*		*40 - 140*

Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: MB 440-375656/3
Matrix: Water
Analysis Batch: 375656

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		2.0		ug/L			12/14/16 07:03	1

Lab Sample ID: LCS 440-375656/2
Matrix: Water
Analysis Batch: 375656

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)			50.0	52.4		ug/L		105	90 - 110		

Lab Sample ID: MRL 440-375656/4
Matrix: Water
Analysis Batch: 375656

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)			1.00	ND		ug/L		79	50 - 150		

Lab Sample ID: 440-169295-1 MS
Matrix: Water
Analysis Batch: 375656

Client Sample ID: State Well-1 20161214
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)	2.6		50.0	55.8		ug/L		107	85 - 115		

Lab Sample ID: 440-169295-1 MSD
Matrix: Water
Analysis Batch: 375656

Client Sample ID: State Well-1 20161214
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	2.6		50.0	55.6		ug/L		106	85 - 115	0	20

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-376529/1-A ^5
Matrix: Solid
Analysis Batch: 376821

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 376529

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Arsenic	ND		3.0		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Barium	ND		1.5		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Beryllium	ND		0.51		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Cadmium	ND		0.51		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Chromium	ND		1.0		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Cobalt	ND		1.0		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Copper	ND		2.0		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Lead	ND		2.0		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Molybdenum	ND		2.0		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Nickel	ND		2.0		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Selenium	ND		3.0		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Thallium	ND		10		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Vanadium	ND		1.0		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Zinc	ND		5.1		mg/Kg		12/17/16 11:29	12/19/16 13:42	5
Silver	ND		1.5		mg/Kg		12/17/16 11:29	12/19/16 13:42	5

Lab Sample ID: LCS 440-376529/2-A ^5
Matrix: Solid
Analysis Batch: 376821

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 376529

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			49.5	44.9		mg/Kg		91	80 - 120		
Arsenic			49.5	45.9		mg/Kg		93	80 - 120		
Barium			49.5	46.5		mg/Kg		94	80 - 120		
Beryllium			49.5	43.2		mg/Kg		87	80 - 120		
Cadmium			49.5	47.0		mg/Kg		95	80 - 120		
Chromium			49.5	47.9		mg/Kg		97	80 - 120		
Cobalt			49.5	49.5		mg/Kg		100	80 - 120		
Copper			49.5	46.0		mg/Kg		93	80 - 120		
Lead			49.5	46.4		mg/Kg		94	80 - 120		
Molybdenum			49.5	46.0		mg/Kg		93	80 - 120		
Nickel			49.5	48.0		mg/Kg		97	80 - 120		
Selenium			49.5	40.7		mg/Kg		82	80 - 120		
Thallium			49.5	46.8		mg/Kg		94	80 - 120		
Vanadium			49.5	46.8		mg/Kg		95	80 - 120		
Zinc			49.5	45.9		mg/Kg		93	80 - 120		
Silver			24.8	21.9		mg/Kg		88	80 - 120		

Lab Sample ID: 440-169732-A-1-D MS ^5
Matrix: Solid
Analysis Batch: 376821

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 376529

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony	ND	F2 F1	50.0	19.4	F1	mg/Kg		39	75 - 125		
Arsenic	8.2		50.0	52.1		mg/Kg		88	75 - 125		
Barium	700		50.0	774	4	mg/Kg		145	75 - 125		
Beryllium	ND		50.0	44.4		mg/Kg		88	75 - 125		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-169732-A-1-D MS ^5
Matrix: Solid
Analysis Batch: 376821

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 376529

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	1.3		50.0	46.2		mg/Kg		90	75 - 125
Chromium	41		50.0	85.3		mg/Kg		89	75 - 125
Cobalt	7.4		50.0	54.9		mg/Kg		95	75 - 125
Copper	54		50.0	102		mg/Kg		97	75 - 125
Lead	64	F1	50.0	103		mg/Kg		78	75 - 125
Molybdenum	2.0		50.0	45.5		mg/Kg		87	75 - 125
Nickel	25		50.0	72.9		mg/Kg		96	75 - 125
Selenium	ND		50.0	40.5		mg/Kg		81	75 - 125
Thallium	ND		50.0	44.7		mg/Kg		89	75 - 125
Vanadium	45		50.0	96.7		mg/Kg		104	75 - 125
Zinc	150	F1	50.0	183	F1	mg/Kg		69	75 - 125
Silver	ND		25.0	23.1		mg/Kg		92	75 - 125

Lab Sample ID: 440-169732-A-1-E MSD ^5
Matrix: Solid
Analysis Batch: 376821

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 376529

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	F2 F1	50.0	14.5	F1 F2	mg/Kg		29	75 - 125	29	20
Arsenic	8.2		50.0	50.7		mg/Kg		85	75 - 125	3	20
Barium	700		50.0	691	4	mg/Kg		-20	75 - 125	11	20
Beryllium	ND		50.0	41.2		mg/Kg		82	75 - 125	7	20
Cadmium	1.3		50.0	43.1		mg/Kg		84	75 - 125	7	20
Chromium	41		50.0	85.2		mg/Kg		89	75 - 125	0	20
Cobalt	7.4		50.0	52.2		mg/Kg		90	75 - 125	5	20
Copper	54		50.0	101		mg/Kg		93	75 - 125	2	20
Lead	64	F1	50.0	98.2	F1	mg/Kg		69	75 - 125	5	20
Molybdenum	2.0		50.0	42.0		mg/Kg		80	75 - 125	8	20
Nickel	25		50.0	73.3		mg/Kg		97	75 - 125	1	20
Selenium	ND		50.0	39.2		mg/Kg		78	75 - 125	3	20
Thallium	ND		50.0	42.0		mg/Kg		84	75 - 125	6	20
Vanadium	45		50.0	95.9		mg/Kg		102	75 - 125	1	20
Zinc	150	F1	50.0	181	F1	mg/Kg		64	75 - 125	1	20
Silver	ND		25.0	21.1		mg/Kg		85	75 - 125	9	20

Lab Sample ID: MB 440-376735/1-A
Matrix: Water
Analysis Batch: 376892

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 376735

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:21	1
Arsenic	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:21	1
Barium	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:21	1
Beryllium	ND		0.0020		mg/L		12/19/16 09:34	12/19/16 18:21	1
Cadmium	ND		0.0050		mg/L		12/19/16 09:34	12/19/16 18:21	1
Chromium	ND		0.0050		mg/L		12/19/16 09:34	12/19/16 18:21	1
Cobalt	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:21	1
Copper	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:21	1
Lead	ND		0.0050		mg/L		12/19/16 09:34	12/19/16 18:21	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 440-376735/1-A
Matrix: Water
Analysis Batch: 376892

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 376735

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		0.020		mg/L		12/19/16 09:34	12/19/16 18:21	1
Nickel	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:21	1
Selenium	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:21	1
Thallium	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:21	1
Vanadium	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:21	1
Zinc	ND		0.020		mg/L		12/19/16 09:34	12/19/16 18:21	1
Silver	ND		0.010		mg/L		12/19/16 09:34	12/19/16 18:21	1

Lab Sample ID: LCS 440-376735/2-A
Matrix: Water
Analysis Batch: 376892

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 376735

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			1.00	0.915		mg/L		91	80 - 120		
Arsenic			1.00	0.945		mg/L		95	80 - 120		
Barium			1.00	0.937		mg/L		94	80 - 120		
Beryllium			1.00	0.917		mg/L		92	80 - 120		
Cadmium			1.00	0.966		mg/L		97	80 - 120		
Chromium			1.00	0.964		mg/L		96	80 - 120		
Cobalt			1.00	0.940		mg/L		94	80 - 120		
Copper			1.00	0.965		mg/L		96	80 - 120		
Lead			1.00	0.927		mg/L		93	80 - 120		
Molybdenum			1.00	0.900		mg/L		90	80 - 120		
Nickel			1.00	0.969		mg/L		97	80 - 120		
Selenium			1.00	0.891		mg/L		89	80 - 120		
Thallium			1.00	0.953		mg/L		95	80 - 120		
Vanadium			1.00	0.939		mg/L		94	80 - 120		
Zinc			1.00	0.944		mg/L		94	80 - 120		
Silver			0.500	0.446		mg/L		89	80 - 120		

Lab Sample ID: 440-169295-1 MS
Matrix: Water
Analysis Batch: 376892

Client Sample ID: State Well-1 20161214
Prep Type: Total Recoverable
Prep Batch: 376735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony	ND		1.00	0.926		mg/L		93	75 - 125		
Arsenic	ND		1.00	0.975		mg/L		97	75 - 125		
Barium	0.094		1.00	1.02		mg/L		93	75 - 125		
Beryllium	ND		1.00	0.927		mg/L		93	75 - 125		
Cadmium	ND		1.00	0.945		mg/L		94	75 - 125		
Chromium	0.0080		1.00	0.968		mg/L		96	75 - 125		
Cobalt	ND		1.00	0.928		mg/L		93	75 - 125		
Copper	ND		1.00	1.01		mg/L		101	75 - 125		
Lead	ND		1.00	0.928		mg/L		93	75 - 125		
Molybdenum	ND		1.00	0.913		mg/L		91	75 - 125		
Nickel	0.011		1.00	0.957		mg/L		95	75 - 125		
Selenium	ND		1.00	0.899		mg/L		90	75 - 125		
Thallium	ND		1.00	0.945		mg/L		95	75 - 125		
Vanadium	ND		1.00	0.958		mg/L		96	75 - 125		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-169295-1 MS
Matrix: Water
Analysis Batch: 376892

Client Sample ID: State Well-1 20161214
Prep Type: Total Recoverable
Prep Batch: 376735

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	ND		1.00	0.942		mg/L		94	75 - 125
Silver	ND		0.500	0.459		mg/L		92	75 - 125

Lab Sample ID: 440-169295-1 MSD
Matrix: Water
Analysis Batch: 376892

Client Sample ID: State Well-1 20161214
Prep Type: Total Recoverable
Prep Batch: 376735

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		1.00	0.902		mg/L		90	75 - 125	3	20
Arsenic	ND		1.00	0.960		mg/L		95	75 - 125	2	20
Barium	0.094		1.00	1.00		mg/L		91	75 - 125	2	20
Beryllium	ND		1.00	0.941		mg/L		94	75 - 125	1	20
Cadmium	ND		1.00	0.932		mg/L		93	75 - 125	1	20
Chromium	0.0080		1.00	0.957		mg/L		95	75 - 125	1	20
Cobalt	ND		1.00	0.919		mg/L		92	75 - 125	1	20
Copper	ND		1.00	1.00		mg/L		100	75 - 125	1	20
Lead	ND		1.00	0.917		mg/L		92	75 - 125	1	20
Molybdenum	ND		1.00	0.899		mg/L		90	75 - 125	2	20
Nickel	0.011		1.00	0.948		mg/L		94	75 - 125	1	20
Selenium	ND		1.00	0.875		mg/L		87	75 - 125	3	20
Thallium	ND		1.00	0.932		mg/L		93	75 - 125	1	20
Vanadium	ND		1.00	0.951		mg/L		95	75 - 125	1	20
Zinc	ND		1.00	0.936		mg/L		94	75 - 125	1	20
Silver	ND		0.500	0.456		mg/L		91	75 - 125	1	20

Lab Sample ID: MB 440-376820/1-C
Matrix: Water
Analysis Batch: 377150

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 376990

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		0.010		mg/L		12/20/16 08:23	12/20/16 15:40	1

Lab Sample ID: MB 440-376820/1-C
Matrix: Water
Analysis Batch: 377170

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 376990

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:49	1
Arsenic	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:49	1
Beryllium	ND		0.0020		mg/L		12/20/16 08:23	12/20/16 16:49	1
Cadmium	ND		0.0050		mg/L		12/20/16 08:23	12/20/16 16:49	1
Chromium	ND		0.0050		mg/L		12/20/16 08:23	12/20/16 16:49	1
Cobalt	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:49	1
Copper	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:49	1
Lead	ND		0.0050		mg/L		12/20/16 08:23	12/20/16 16:49	1
Molybdenum	ND		0.020		mg/L		12/20/16 08:23	12/20/16 16:49	1
Nickel	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:49	1
Selenium	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:49	1
Thallium	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:49	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 440-376820/1-C
Matrix: Water
Analysis Batch: 377170

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 376990

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:49	1
Zinc	ND		0.020		mg/L		12/20/16 08:23	12/20/16 16:49	1
Silver	ND		0.010		mg/L		12/20/16 08:23	12/20/16 16:49	1

Lab Sample ID: LCS 440-376820/2-C
Matrix: Water
Analysis Batch: 377150

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 376990

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Barium			1.00	0.931		mg/L		93	80 - 120		

Lab Sample ID: LCS 440-376820/2-C
Matrix: Water
Analysis Batch: 377170

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 376990

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			1.00	0.976		mg/L		98	80 - 120		
Arsenic			1.00	1.01		mg/L		101	80 - 120		
Beryllium			1.00	1.01		mg/L		101	80 - 120		
Cadmium			1.00	1.01		mg/L		101	80 - 120		
Chromium			1.00	1.00		mg/L		100	80 - 120		
Cobalt			1.00	0.997		mg/L		100	80 - 120		
Copper			1.00	1.01		mg/L		101	80 - 120		
Lead			1.00	0.995		mg/L		99	80 - 120		
Molybdenum			1.00	0.970		mg/L		97	80 - 120		
Nickel			1.00	1.02		mg/L		102	80 - 120		
Selenium			1.00	0.944		mg/L		94	80 - 120		
Thallium			1.00	1.03		mg/L		103	80 - 120		
Vanadium			1.00	0.995		mg/L		99	80 - 120		
Zinc			1.00	0.975		mg/L		97	80 - 120		
Silver			0.500	0.477		mg/L		95	80 - 120		

Lab Sample ID: 440-169295-1 MS
Matrix: Water
Analysis Batch: 377150

Client Sample ID: State Well-1 20161214
Prep Type: Dissolved
Prep Batch: 376990

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Barium	0.084		1.00	0.918		mg/L		83	75 - 125		

Lab Sample ID: 440-169295-1 MS
Matrix: Water
Analysis Batch: 377170

Client Sample ID: State Well-1 20161214
Prep Type: Dissolved
Prep Batch: 376990

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony	ND		1.00	0.951		mg/L		95	75 - 125		
Arsenic	ND		1.00	0.992		mg/L		99	75 - 125		
Beryllium	ND		1.00	0.973		mg/L		97	75 - 125		
Cadmium	ND		1.00	0.944		mg/L		94	75 - 125		
Chromium	ND		1.00	0.945		mg/L		95	75 - 125		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-169295-1 MS
Matrix: Water
Analysis Batch: 377170

Client Sample ID: State Well-1 20161214
Prep Type: Dissolved
Prep Batch: 376990

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	ND		1.00	0.926		mg/L		93	75 - 125
Copper	ND		1.00	0.972		mg/L		97	75 - 125
Lead	ND		1.00	0.926		mg/L		93	75 - 125
Molybdenum	ND		1.00	0.937		mg/L		94	75 - 125
Nickel	ND		1.00	0.927		mg/L		93	75 - 125
Selenium	ND		1.00	0.916		mg/L		92	75 - 125
Thallium	ND		1.00	0.971		mg/L		97	75 - 125
Vanadium	ND		1.00	0.955		mg/L		96	75 - 125
Zinc	ND		1.00	0.923		mg/L		92	75 - 125
Silver	ND		0.500	0.452		mg/L		90	75 - 125

Lab Sample ID: 440-169295-1 MSD
Matrix: Water
Analysis Batch: 377150

Client Sample ID: State Well-1 20161214
Prep Type: Dissolved
Prep Batch: 376990

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.084		1.00	0.986		mg/L		90	75 - 125	7	20

Lab Sample ID: 440-169295-1 MSD
Matrix: Water
Analysis Batch: 377170

Client Sample ID: State Well-1 20161214
Prep Type: Dissolved
Prep Batch: 376990

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND		1.00	1.01		mg/L		101	75 - 125	6	20
Arsenic	ND		1.00	1.06		mg/L		106	75 - 125	6	20
Beryllium	ND		1.00	1.02		mg/L		102	75 - 125	4	20
Cadmium	ND		1.00	1.01		mg/L		101	75 - 125	7	20
Chromium	ND		1.00	1.02		mg/L		102	75 - 125	7	20
Cobalt	ND		1.00	0.998		mg/L		100	75 - 125	7	20
Copper	ND		1.00	1.05		mg/L		105	75 - 125	8	20
Lead	ND		1.00	0.987		mg/L		99	75 - 125	6	20
Molybdenum	ND		1.00	1.00		mg/L		100	75 - 125	7	20
Nickel	ND		1.00	0.997		mg/L		100	75 - 125	7	20
Selenium	ND		1.00	0.980		mg/L		98	75 - 125	7	20
Thallium	ND		1.00	1.03		mg/L		103	75 - 125	6	20
Vanadium	ND		1.00	1.02		mg/L		102	75 - 125	7	20
Zinc	ND		1.00	0.992		mg/L		99	75 - 125	7	20
Silver	ND		0.500	0.484		mg/L		97	75 - 125	7	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 440-376038/1-A
Matrix: Water
Analysis Batch: 376182

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 376038

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/15/16 11:32	12/15/16 17:17	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 440-376038/2-A
Matrix: Water
Analysis Batch: 376182

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 376038

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00800	0.00828		mg/L		104	80 - 120		

Lab Sample ID: 720-76351-F-1-B MS
Matrix: Water
Analysis Batch: 376182

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 376038

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00800	0.00799		mg/L		100	70 - 130		

Lab Sample ID: 720-76351-F-1-C MSD
Matrix: Water
Analysis Batch: 376182

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 376038

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00800	0.00817		mg/L		102	70 - 130	2	20

Lab Sample ID: MB 440-376820/1-B
Matrix: Water
Analysis Batch: 377235

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 376932

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020		mg/L		12/20/16 00:23	12/20/16 17:56	1

Lab Sample ID: LCS 440-376820/2-B
Matrix: Water
Analysis Batch: 377235

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 376932

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00800	0.00812		mg/L		101	80 - 120		

Lab Sample ID: 440-169295-1 MS
Matrix: Water
Analysis Batch: 377235

Client Sample ID: State Well-1 20161214
Prep Type: Dissolved
Prep Batch: 376932

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.00800	0.00813		mg/L		102	70 - 130		

Lab Sample ID: 440-169295-1 MSD
Matrix: Water
Analysis Batch: 377235

Client Sample ID: State Well-1 20161214
Prep Type: Dissolved
Prep Batch: 376932

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00800	0.00843		mg/L		105	70 - 130	4	20

QC Association Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-1

GC/MS VOA

Analysis Batch: 375940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-2	Comp-1 20161214	Total/NA	Solid	8260B	
MB 440-375940/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-375940/5	Lab Control Sample	Total/NA	Solid	8260B	
440-169267-A-3 MS	Matrix Spike	Total/NA	Solid	8260B	
440-169267-A-3 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	

Analysis Batch: 376507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-3	TB-1 20161214	Total/NA	Water	8260B	
MB 440-376507/3	Method Blank	Total/NA	Water	8260B	
LCS 440-376507/4	Lab Control Sample	Total/NA	Water	8260B	
440-169356-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-169356-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 376682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1	State Well-1 20161214	Total/NA	Water	8260B	
MB 440-376682/3	Method Blank	Total/NA	Water	8260B	
LCS 440-376682/4	Lab Control Sample	Total/NA	Water	8260B	
440-169211-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-169211-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 376268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-2	Comp-1 20161214	Total/NA	Solid	8015B	
MB 440-376268/5	Method Blank	Total/NA	Solid	8015B	
LCS 440-376268/3	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 440-376268/4	Lab Control Sample Dup	Total/NA	Solid	8015B	
440-168861-F-4 MS	Matrix Spike	Total/NA	Solid	8015B	
440-168861-F-4 MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	

GC Semi VOA

Prep Batch: 376128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-2	Comp-1 20161214	Total/NA	Solid	3546	
MB 440-376128/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-376128/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-168951-A-1-A MS	Matrix Spike	Total/NA	Solid	3546	
440-168951-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 376336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-376128/1-A	Method Blank	Total/NA	Solid	8015B	376128
LCS 440-376128/2-A	Lab Control Sample	Total/NA	Solid	8015B	376128

GC Semi VOA (Continued)

Analysis Batch: 376538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-2	Comp-1 20161214	Total/NA	Solid	8015B	376128

Analysis Batch: 376540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-168951-A-1-A MS	Matrix Spike	Total/NA	Solid	8015B	376128
440-168951-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	376128

HPLC/IC

Analysis Batch: 375656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1	State Well-1 20161214	Total/NA	Water	7199	
MB 440-375656/3	Method Blank	Total/NA	Water	7199	
LCS 440-375656/2	Lab Control Sample	Total/NA	Water	7199	
MRL 440-375656/4	Lab Control Sample	Total/NA	Water	7199	
440-169295-1 MS	State Well-1 20161214	Total/NA	Water	7199	
440-169295-1 MSD	State Well-1 20161214	Total/NA	Water	7199	

Metals

Prep Batch: 376038

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1	State Well-1 20161214	Total/NA	Water	7470A	
MB 440-376038/1-A	Method Blank	Total/NA	Water	7470A	
LCS 440-376038/2-A	Lab Control Sample	Total/NA	Water	7470A	
720-76351-F-1-B MS	Matrix Spike	Total/NA	Water	7470A	
720-76351-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 376182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1	State Well-1 20161214	Total/NA	Water	7470A	376038
MB 440-376038/1-A	Method Blank	Total/NA	Water	7470A	376038
LCS 440-376038/2-A	Lab Control Sample	Total/NA	Water	7470A	376038
720-76351-F-1-B MS	Matrix Spike	Total/NA	Water	7470A	376038
720-76351-F-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	376038

Prep Batch: 376529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-2	Comp-1 20161214	Total/NA	Solid	3050B	
MB 440-376529/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 440-376529/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
440-169732-A-1-D MS ^5	Matrix Spike	Total/NA	Solid	3050B	
440-169732-A-1-E MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Prep Batch: 376735

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1	State Well-1 20161214	Total Recoverable	Water	3005A	
MB 440-376735/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 440-376735/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
440-169295-1 MS	State Well-1 20161214	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 376735 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1 MSD	State Well-1 20161214	Total Recoverable	Water	3005A	

Filtration Batch: 376820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1	State Well-1 20161214	Dissolved	Water	FILTRATION	
MB 440-376820/1-B	Method Blank	Dissolved	Water	FILTRATION	
MB 440-376820/1-C	Method Blank	Dissolved	Water	FILTRATION	
LCS 440-376820/2-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 440-376820/2-C	Lab Control Sample	Dissolved	Water	FILTRATION	
440-169295-1 MS	State Well-1 20161214	Dissolved	Water	FILTRATION	
440-169295-1 MSD	State Well-1 20161214	Dissolved	Water	FILTRATION	

Analysis Batch: 376821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-2	Comp-1 20161214	Total/NA	Solid	6010B	376529
MB 440-376529/1-A ^5	Method Blank	Total/NA	Solid	6010B	376529
LCS 440-376529/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	376529
440-169732-A-1-D MS ^5	Matrix Spike	Total/NA	Solid	6010B	376529
440-169732-A-1-E MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	376529

Analysis Batch: 376892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1	State Well-1 20161214	Total Recoverable	Water	6010B	376735
MB 440-376735/1-A	Method Blank	Total Recoverable	Water	6010B	376735
LCS 440-376735/2-A	Lab Control Sample	Total Recoverable	Water	6010B	376735
440-169295-1 MS	State Well-1 20161214	Total Recoverable	Water	6010B	376735
440-169295-1 MSD	State Well-1 20161214	Total Recoverable	Water	6010B	376735

Prep Batch: 376932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1	State Well-1 20161214	Dissolved	Water	7470A	376820
MB 440-376820/1-B	Method Blank	Dissolved	Water	7470A	376820
LCS 440-376820/2-B	Lab Control Sample	Dissolved	Water	7470A	376820
440-169295-1 MS	State Well-1 20161214	Dissolved	Water	7470A	376820
440-169295-1 MSD	State Well-1 20161214	Dissolved	Water	7470A	376820

Prep Batch: 376990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1	State Well-1 20161214	Dissolved	Water	3005A	376820
MB 440-376820/1-C	Method Blank	Dissolved	Water	3005A	376820
LCS 440-376820/2-C	Lab Control Sample	Dissolved	Water	3005A	376820
440-169295-1 MS	State Well-1 20161214	Dissolved	Water	3005A	376820
440-169295-1 MSD	State Well-1 20161214	Dissolved	Water	3005A	376820

Analysis Batch: 377150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1	State Well-1 20161214	Dissolved	Water	6010B	376990
MB 440-376820/1-C	Method Blank	Dissolved	Water	6010B	376990
LCS 440-376820/2-C	Lab Control Sample	Dissolved	Water	6010B	376990
440-169295-1 MS	State Well-1 20161214	Dissolved	Water	6010B	376990
440-169295-1 MSD	State Well-1 20161214	Dissolved	Water	6010B	376990

QC Association Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-1

Analysis Batch: 377170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1	State Well-1 20161214	Dissolved	Water	6010B	376990
MB 440-376820/1-C	Method Blank	Dissolved	Water	6010B	376990
LCS 440-376820/2-C	Lab Control Sample	Dissolved	Water	6010B	376990
440-169295-1 MS	State Well-1 20161214	Dissolved	Water	6010B	376990
440-169295-1 MSD	State Well-1 20161214	Dissolved	Water	6010B	376990

Analysis Batch: 377235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-1	State Well-1 20161214	Dissolved	Water	7470A	376932
MB 440-376820/1-B	Method Blank	Dissolved	Water	7470A	376932
LCS 440-376820/2-B	Lab Control Sample	Dissolved	Water	7470A	376932
440-169295-1 MS	State Well-1 20161214	Dissolved	Water	7470A	376932
440-169295-1 MSD	State Well-1 20161214	Dissolved	Water	7470A	376932

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

GC Semi VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 16-001r	01-23-17 *
Hawaii	State Program	9	N/A	01-29-17 *
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-17 *
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Certification renewal pending - certification considered valid.

TestAmerica Irvine

17461 Derian Ave
Suite 100
Irvine, CA 92614
Phone: 949.261.1022 Fax:

Chain of Custody Record

144982

TestAmerica
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TestAmerica Laboratories, Inc.

TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager:	Site Contact:	Date:	COC No:
Company Name: Langan Engineering	Tel/Fax:	Lab Contact:	Carrier:	____ of ____ COCs
Address: 32 Executive Park, Suite 130	**Analysis Turnaround Time**			Sampler:
City/State/Zip: Irvine, Ca 92614	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
Phone: 949-255-8640	TAT if different from Below ____			Walk-in Client:
Fax: 949-255-8641	☐ 2 weeks			Lab Sampling:
Project Name: Riverside Cement Plant	☒ 1 week			
Site: 1500 Rubidoux Blvd.	☐ 2 days			Job / SDG No.:
PO # 70004540I	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Title 22 Metals (Soluble)	Title 22 Metals (Unfiltered)	Hexavalent Chromium (7199)	VOCs (8260)	TPH (8015B)	Title 22 Metals (6010B)	Sample Specific Notes:
State Well-1-20161214	12-14-16	13:55	Water	GW	7			X	X	X	X			Hex Chrom via EPA 7199
Comp-1-20161214	"	15:30	Comp	Soil	2						X	X	X	
TB-1-20161214	"	13:50	~~Water~~ Water	Water	1						X			

440-169295 Chain of Custody

12-14-16

12/15/14

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

5.5 / 5.5 JR 78

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ Therm ID No.: ____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Langan	12-14-16/1800		TAI	12-14-16 / 1800
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Srvcs

Job Number: 440-169295-1

Login Number: 169295
List Number: 1
Creator: Skinner, Alma D

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Field on COC is blank.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-169295-2
Client Project/Site: Riverside Cement Plant

For:
Langan Engineering & Environmental Srvcs
32 Executive Park
Suite 130
Irvine, California 92614

Attn: Drew Lassen

Authorized for release by:
12/30/2016 11:41:36 AM

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 6
Lab Chronicle 7
QC Sample Results 8
QC Association Summary 9
Definitions/Glossary 10
Certification Summary 11
Chain of Custody 12
Receipt Checklists 16

Sample Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-169295-2	Comp-1 20161214	Solid	12/14/16 15:30	12/14/16 18:00

Job ID: 440-169295-2

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-169295-2

Comments
No additional comments.

Receipt
The samples were received on 12/14/2016 6:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.5º C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-2

Client Sample ID: Comp-1 20161214
Date Collected: 12/14/16 15:30
Date Received: 12/14/16 18:00

Lab Sample ID: 440-169295-2
Matrix: Solid

Method: 6010B - Metals (ICP) - STLC Citrate

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.11		0.10		mg/L			12/30/16 08:48	20

Method Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-2

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-2

Client Sample ID: Comp-1 20161214
Date Collected: 12/14/16 15:30
Date Received: 12/14/16 18:00

Lab Sample ID: 440-169295-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
STLC Citrate	Leach	CA WET Citrate			50.04 g	500 mL	378470	12/27/16 19:48	CDH	TAL IRV
STLC Citrate	Analysis	6010B		20			379126	12/30/16 08:48	EN	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-378470/1-A ^20
Matrix: Solid
Analysis Batch: 379126

Client Sample ID: Method Blank
Prep Type: STLC Citrate

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.10		mg/L			12/30/16 08:43	20

Lab Sample ID: LCS 440-378470/2-A ^20
Matrix: Solid
Analysis Batch: 379126

Client Sample ID: Lab Control Sample
Prep Type: STLC Citrate

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			20.0	19.6		mg/L		98	80 - 120		

Lab Sample ID: 440-169295-2 MS
Matrix: Solid
Analysis Batch: 379126

Client Sample ID: Comp-1 20161214
Prep Type: STLC Citrate

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	0.11		20.0	19.5		mg/L		97	75 - 125		

Lab Sample ID: 440-169295-2 MSD
Matrix: Solid
Analysis Batch: 379126

Client Sample ID: Comp-1 20161214
Prep Type: STLC Citrate

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.11		20.0	19.8		mg/L		98	75 - 125	2	20

QC Association Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-2

Metals

Leach Batch: 378470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-2	Comp-1 20161214	STLC Citrate	Solid	CA WET Citrate	
MB 440-378470/1-A ^20	Method Blank	STLC Citrate	Solid	CA WET Citrate	
LCS 440-378470/2-A ^20	Lab Control Sample	STLC Citrate	Solid	CA WET Citrate	
440-169295-2 MS	Comp-1 20161214	STLC Citrate	Solid	CA WET Citrate	
440-169295-2 MSD	Comp-1 20161214	STLC Citrate	Solid	CA WET Citrate	

Analysis Batch: 379126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-169295-2	Comp-1 20161214	STLC Citrate	Solid	6010B	378470
MB 440-378470/1-A ^20	Method Blank	STLC Citrate	Solid	6010B	378470
LCS 440-378470/2-A ^20	Lab Control Sample	STLC Citrate	Solid	6010B	378470
440-169295-2 MS	Comp-1 20161214	STLC Citrate	Solid	6010B	378470
440-169295-2 MSD	Comp-1 20161214	STLC Citrate	Solid	6010B	378470

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Riverside Cement Plant

TestAmerica Job ID: 440-169295-2

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 16-001r	01-23-17 *
Hawaii	State Program	9	N/A	01-29-17 *
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-17 *
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Certification renewal pending - certification considered valid.

Mata, Patty

From: Rachel Prohoroff <rprohoroff@Langan.com>
Sent: Tuesday, December 27, 2016 4:29 PM
To: Mata, Patty; Patel, Urvashi
Cc: Murray, Camille; Neil Shukla; Malcolm Thomas
Subject: FW: TestAmerica report files from 440-169295-1 Riverside Cement Plant
Attachments: J169295-1 UDS Level 2 Report Final Report.pdf; ATT00001.htm

Patty, Urvashi, or Camille,

Can you please run the WET for lead on sample Comp-1 20161214 from the attached work order?

What is the estimated TAT and charge for the WET?

Thank you,

Rachel Prohoroff, GIT
Senior Staff Geologist
Direct: 949.255.8668
Mobile: 559.801.9573
File Sharing Link

LANGAN
www.langan.com

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VIRGINIA WEST VIRGINIA OHIO FLORIDA TEXAS ARIZONA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL LONDON PANAMA

Langan's goal is to be SAFE (Stay Accident Free Everyday)

From: Rachel Prohoroff
Sent: Tuesday, December 27, 2016 4:25 PM
To: 'Murray, Camille'
Cc: Neil Shukla; Malcolm Thomas (mathomas@langan.com)
Subject: FW: TestAmerica report files from 440-169295-1 Riverside Cement Plant

Hi Camille,

Can you please run the WET for lead on sample Comp-1 20161214 from the attached work order?

What is the estimated TAT and charge for the WET?

Thank you,

Rachel Prohoroff, GIT
Senior Staff Geologist
Direct: 949.255.8668
Mobile: 559.801.9573
File Sharing Link

From: Malcolm Thomas
Sent: Friday, December 23, 2016 6:46 AM
To: Rachel Prohoroff
Cc: Neil Shukla
Subject: Fwd: TestAmerica report files from 440-169295-1 Riverside Cement Plant

Please see the forwarded email for the Crestmore GW sampling results.

Sent from my iPhone

Begin forwarded message:

> **From:** "Patel, Urvashi" <urvashi.patel@testamericainc.com>
> **To:** "Drew Lassen" <dlassen@langan.com>, "Malcolm Thomas" <mathomas@langan.com>
> **Subject: TestAmerica report files from 440-169295-1 Riverside Cement Plant**
>
> Hello,
>
> Attached please find the report files for job 440-169295-1; Riverside Cement Plant
>
> Please feel free to contact me or your PM Camille Murray if you have any questions.
>
> Thank you.
>
> Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: Project Feedback
>
> **URVASHI PATEL**
> Manager of Project Management
>
> TestAmerica Irvine
> THE LEADER IN ENVIRONMENTAL TESTING
>
> Tel: 949.261,1022
>
> Reference: [334586]
> Attachments: 1

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TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
Phone: 949.261.1022 Fax:

Chain of Custody Record

144982

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager:	Site Contact:	Date:	COC No:
Company Name: Langan Engineering	Tel/Fax:	Lab Contact:	Carrier:	____ of ____ COCs
Address: 32 Executive Park, Suite 130	Analysis Turnaround Time			Sampler:
City/State/Zip: Irvine, Ca 92614	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 949-255-8640	TAT if different from Below ____			Walk-in Client:
Fax: 949-255-8641	☐ 2 weeks			Lab Sampling:
Project Name: Riverside Cement Plant	☒ 1 week			
Site: 1500 Rubidoux Blvd.	☐ 2 days			Job / SDG No.:
PO # 70004540I	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Title 22 Metals (Cr6 only)	Title 22 Metals (Unfiltered)	Hexavalent Chromium (7199)	VOCs (8260)	TPH (8015B)	Title 22 Metals (6010B)	Sample Specific Notes:
State Well-1-20161214	12-14-16	13:55	Water	GW	7			X	X	X	X			Hex Chrom via EPA 7199
Comp-1-20161214	"	15:30	Comp	Soil	2						X	X	X	
TB-1-20161214	"	13:50	~~Water~~ Water	Water	1						X			

440-169295 Chain of Custody

12-14-16

12/15/14

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

5.5 / 5.5 JR 78

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: ____ Corr'd: ____ Therm ID No.: ____

	Company:	Date/Time:		Company:	Date/Time:
Relinquished by:	Langan	12-14-16 1800	Received by:	TAL	12-14-16 / 1800
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Srvcs

Job Number: 440-169295-2

Login Number: 169295

List Source: TestAmerica Irvine

List Number: 1

Creator: Skinner, Alma D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Field on COC is blank.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-160075-1
Client Project/Site: Agua Mansa Commerce Park

For:
Langan Engineering & Environmental Srvcs
32 Executive Park
Suite 130
Irvine, California 92614

Attn: Drew Lassen

Authorized for release by:
10/14/2016 1:45:52 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 6
Method Summary 23
Lab Chronicle 24
QC Sample Results 28
QC Association Summary 53
Definitions/Glossary 58
Certification Summary 59
Chain of Custody 60
Receipt Checklists 71

Sample Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160075-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-160075-7	LT-21-6	Solid	09/19/16 10:05	09/29/16 17:10
440-160075-8	LT-21-2	Solid	09/19/16 10:07	09/29/16 17:10
440-160075-15	LT-23-1a	Solid	09/20/16 11:35	09/29/16 17:10
440-160075-18	LT-32-4	Solid	09/20/16 13:15	09/29/16 17:10
440-160075-25	LT-9-4	Solid	09/21/16 12:43	09/29/16 17:10
440-160075-26	LT-9-8	Solid	09/21/16 12:48	09/29/16 17:10
440-160075-29	LT-8-10.5	Solid	09/21/16 13:07	09/29/16 17:10
440-160075-31	LT-4-5	Solid	09/21/16 12:51	09/29/16 17:10
440-160075-41	LT-17-(Composite)	Solid	09/19/16 12:58	09/29/16 17:10
440-160075-42	LT-19-(Composite)	Solid	09/19/16 11:20	09/29/16 17:10
440-160075-43	LT-20-(Composite)	Solid	09/19/16 12:18	09/29/16 17:10
440-160075-44	LT-22-(Composite)	Solid	09/19/16 11:49	09/29/16 17:10
440-160075-45	LT-26-(Composite)	Solid	09/20/16 09:40	09/29/16 17:10
440-160075-46	LT-27-(Composite)	Solid	09/20/16 10:28	09/29/16 17:10
440-160075-47	LT-12-(Composite)	Solid	09/22/16 10:18	09/29/16 17:10

Job ID: 440-160075-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-160075-1

Comments
No additional comments.

Receipt
The samples were received on 9/29/2016 5:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.7º C.

Receipt Exceptions

The following samples was listed on the Chain of Custody (COC); however, no samples was received: LT-11-5 (440-160075-37), LT-11-15 (440-160075-38), LT-AS1 (440-160075-39) and LT-AS2 (440-160075-40).

The Field Sampler was not listed on the Chain of Custody.

GC/MS VOA
Method(s) 8260B: Surrogate Dibromofluoromethane recovery for the following sample was outside control limits: (440-160315-A-1 MSD). Re-extraction and/or re-analysis was performed with concurring results.

Method(s) 8260B: The following samples was diluted due to the abundance of hydrocarbons: LT-9-4 (440-160075-25) and LT-9-8 (440-160075-26). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: Surrogate recovery for the following sample was outside control limits: 4-Bromofluorobenzene is high: LT-9-8 (440-160075-26). Re-extraction and/or re-analysis was performed with concurring results.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270C: The percent recovery for hexachlorocyclopentadiene was below the lower acceptance limit in the continuing calibration verification (CCV) associated with analytical batch 440-359964 . This compound is not classified as a Calibration Check Compound (CCC) in the reference method, and the laboratory defaults to in-house and/or project-specific criteria for evaluation. A standard was run at the reporting limit for this compound to demonstrate sufficient instrument sensitivity. LT-9-4 (440-160075-25), LT-9-8 (440-160075-26) and (CCVIS 440-359964/2).

Method(s) 8270C: The continuing calibration verification (CCV) associated with batch 440-359964 recovered above the upper control limit for 2,2'-oxybis(1-chloropropane). The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The following samples are impacted: LT-9-4 (440-160075-25), LT-9-8 (440-160075-26) and (CCVIS 440-359964/2).

Method(s) 8270C: The following samples required a dilution due to the nature of the sample matrix: LT-9-4 (440-160075-25) and LT-9-8 (440-160075-26). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information. Elevated reporting limits (RLs) are provided.

Method(s) 8270C: The source sample for the matrix spike (MS) and matrix spike duplicate (MSD) of preparation batch 440-359695 was diluted due to the nature of the sample matrix. As such, surrogate and MS/MSD spike recoveries were diluted out and are not reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
Method(s) 8015B: Surrogate recovery for the following samples was outside control limits: LT-9-4 (440-160075-25) and LT-9-8 (440-160075-26). Re-extraction and/or re-analysis was performed with concurring results. The re-analyses have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Job ID: 440-160075-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

GC Semi VOA

Method(s) 8015B: Surrogate recovery for the following sample was outside control limits: LT-9-4 (440-160075-25). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8015B: The following sample required a dilution due to the nature of the sample matrix: LT-9-8 (440-160075-26). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8015B: The source sample for the Matrix Spike/Matrix Spike Duplicate (MS/MSD) associated with batch 440-359694 was diluted due to the abundance of target analytes. As such, surrogate and MS/MSD spike recoveries were diluted out and are not reported.

Method(s) 8015B: The matrix spike (MS) recoveries for preparation batch 440-360059 and analytical batch 440-360322 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8082: The laboratory control sample (LCS) for preparation batch 440-360061 and analytical batch 440-360203 recovered outside control limits for the following analytes: 1016. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8082: The continuing calibration verification (CCV) associated with batch 440-360203 recovered above the upper control limit for Arochlor1016. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCVIS 440-360203/7) and (440-160409-A-61-C).

Method(s) 8082: Re-preparation and reanalysis of the following samples was performed outside of the analytical holding time: LT-26-(Composite) (440-160075-45). Original extraction was within holding time, however, surrogate recoveries were out of range low most likely due to a poor extraction. The sample was re-extracted past holding time with acceptable surrogate recoveries.

Method(s) 8082: Surrogate recovery for the following samples was outside control limits: LT-9-4 (440-160075-25). Re-extraction and re-analysis was performed with concurring results.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 440-360068 and analytical batch 440-360465 were outside control limits for Antimony and Selenium. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 6010B: The following samples was diluted due to the nature of the sample matrix: LT-21-2 (440-160075-8), LT-32-4 (440-160075-18) and LT-26-(Composite) (440-160075-45). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method(s) 3546: Due to the matrix, the following samples could not be concentrated to the final method required volume: 1 mlLT-9-4 (440-160075-25), LT-9-8 (440-160075-26), (440-160075-A-25 MS) and (440-160075-A-25 MSD). The reporting limits (RLs) are elevated proportionately.

Method(s) 3546: Re-preparation and reanalysis of the following samples was outside of holding time: LT-9-4 (440-160075-25) and LT-9-8 (440-160075-26). Samples were originally prepared with in holding time, however, the LCS and MS/MSD were out of range low. Re-extraction was performed outside of holding time with acceptable QC. The re-extracts have been reported with an "H" qualifier.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample ID: LT-21-6

Lab Sample ID: 440-160075-7

Date Collected: 09/19/16 10:05

Matrix: Solid

Date Received: 09/29/16 17:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	F1	10		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Arsenic	ND		3.0		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Barium	**35**		1.5		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Beryllium	ND		0.50		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Cadmium	ND		0.50		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Chromium	**12**		1.0		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Cobalt	**2.7**		1.0		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Copper	**8.4**		2.0		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Lead	**7.8**		2.0		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Molybdenum	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Nickel	**7.5**		2.0		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Selenium	ND	F1	3.0		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Thallium	ND		10		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Vanadium	**24**		1.0		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Zinc	**22**		5.0		mg/Kg		10/04/16 17:44	10/05/16 21:54	5
Silver	ND		1.5		mg/Kg		10/04/16 17:44	10/05/16 21:54	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/05/16 11:45	10/05/16 18:41	1

Client Sample ID: LT-21-2

Lab Sample ID: 440-160075-8

Date Collected: 09/19/16 10:07

Matrix: Solid

Date Received: 09/29/16 17:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		20		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Arsenic	ND		6.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Barium	**32**		3.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Beryllium	ND		1.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Cadmium	**1.7**		1.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Chromium	**2000**		2.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Cobalt	**16**		2.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Copper	**10**		4.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Lead	**32**		4.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Molybdenum	ND		4.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Nickel	**150**		4.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Selenium	ND		6.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Thallium	ND		20		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Vanadium	**69**		2.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Zinc	**30**		10		mg/Kg		10/04/16 17:44	10/06/16 09:25	10
Silver	ND		3.0		mg/Kg		10/04/16 17:44	10/06/16 09:25	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/04/16 21:12	10/05/16 21:46	1

Client Sample ID: LT-23-1a

Date Collected: 09/20/16 11:35
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-15

Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Arsenic	ND		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Barium	**42**		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Beryllium	ND		0.49		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Cadmium	ND		0.49		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Chromium	**1.6**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Cobalt	ND		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Copper	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Lead	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Molybdenum	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Nickel	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Selenium	ND		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Thallium	ND		9.9		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Vanadium	**5.4**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Zinc	**5.7**		4.9		mg/Kg		10/04/16 17:44	10/05/16 22:04	5
Silver	ND		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:04	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/04/16 21:12	10/05/16 21:53	1

Client Sample ID: LT-32-4

Date Collected: 09/20/16 13:15
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-18

Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		20		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Arsenic	ND		5.9		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Barium	**29**		3.0		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Beryllium	ND		0.99		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Cadmium	ND		0.99		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Chromium	**12**		2.0		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Cobalt	ND		2.0		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Copper	**11**		4.0		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Lead	**18**		4.0		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Molybdenum	ND		4.0		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Nickel	**6.4**		4.0		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Selenium	ND		5.9		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Thallium	ND		20		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Vanadium	**30**		2.0		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Zinc	**36**		9.9		mg/Kg		10/05/16 08:31	10/06/16 09:27	10
Silver	ND		3.0		mg/Kg		10/05/16 08:31	10/06/16 09:27	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.042**		0.020		mg/Kg		10/05/16 11:45	10/05/16 18:52	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160075-1

Client Sample ID: LT-9-4
Date Collected: 09/21/16 12:43
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-25
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		20		ug/Kg			10/04/16 12:35	1
1,1,1,2-Tetrachloroethane	ND		3.9		ug/Kg			10/04/16 12:35	1
1,1,1-Trichloroethane	ND		2.0		ug/Kg			10/04/16 12:35	1
1,1,2,2-Tetrachloroethane	ND		3.9		ug/Kg			10/04/16 12:35	1
1,1,2-Trichloroethane	ND		2.0		ug/Kg			10/04/16 12:35	1
1,1-Dichloroethane	ND		2.0		ug/Kg			10/04/16 12:35	1
1,1-Dichloroethene	ND		3.9		ug/Kg			10/04/16 12:35	1
1,1-Dichloropropene	ND		2.0		ug/Kg			10/04/16 12:35	1
1,2,3-Trichlorobenzene	ND		3.9		ug/Kg			10/04/16 12:35	1
1,2,4-Trichlorobenzene	ND		9.8		ug/Kg			10/04/16 12:35	1
1,2,4-Trimethylbenzene	ND		3.9		ug/Kg			10/04/16 12:35	1
1,2-Dibromo-3-Chloropropane	ND		9.8		ug/Kg			10/04/16 12:35	1
1,2-Dichlorobenzene	ND		2.0		ug/Kg			10/04/16 12:35	1
1,2-Dichloroethane	ND		2.0		ug/Kg			10/04/16 12:35	1
1,2-Dichloropropane	ND		2.0		ug/Kg			10/04/16 12:35	1
1,3,5-Trimethylbenzene	ND		3.9		ug/Kg			10/04/16 12:35	1
1,3-Dichlorobenzene	ND		2.0		ug/Kg			10/04/16 12:35	1
1,3-Dichloropropane	ND		2.0		ug/Kg			10/04/16 12:35	1
1,4-Dichlorobenzene	ND		2.0		ug/Kg			10/04/16 12:35	1
2,2-Dichloropropane	ND		3.9		ug/Kg			10/04/16 12:35	1
2-Chlorotoluene	ND		3.9		ug/Kg			10/04/16 12:35	1
4-Chlorotoluene	ND		3.9		ug/Kg			10/04/16 12:35	1
p-Isopropyltoluene	ND		2.0		ug/Kg			10/04/16 12:35	1
Benzene	ND		2.0		ug/Kg			10/04/16 12:35	1
Bromobenzene	ND		3.9		ug/Kg			10/04/16 12:35	1
Bromoform	ND		3.9		ug/Kg			10/04/16 12:35	1
Bromomethane	ND		3.9		ug/Kg			10/04/16 12:35	1
Carbon tetrachloride	ND		3.9		ug/Kg			10/04/16 12:35	1
Chlorobenzene	ND		2.0		ug/Kg			10/04/16 12:35	1
Bromochloromethane	ND		3.9		ug/Kg			10/04/16 12:35	1
Chloroethane	ND		3.9		ug/Kg			10/04/16 12:35	1
Chloroform	ND		2.0		ug/Kg			10/04/16 12:35	1
Chloromethane	ND		3.9		ug/Kg			10/04/16 12:35	1
cis-1,2-Dichloroethene	ND		2.0		ug/Kg			10/04/16 12:35	1
cis-1,3-Dichloropropene	ND		2.0		ug/Kg			10/04/16 12:35	1
Dibromochloromethane	ND		2.0		ug/Kg			10/04/16 12:35	1
Dibromomethane	ND		2.0		ug/Kg			10/04/16 12:35	1
Bromodichloromethane	ND		2.0		ug/Kg			10/04/16 12:35	1
Dichlorodifluoromethane	ND		3.9		ug/Kg			10/04/16 12:35	1
Ethylbenzene	ND		2.0		ug/Kg			10/04/16 12:35	1
Hexachlorobutadiene	ND		3.9		ug/Kg			10/04/16 12:35	1
Isopropylbenzene	ND		2.0		ug/Kg			10/04/16 12:35	1
m,p-Xylene	ND		3.9		ug/Kg			10/04/16 12:35	1
Methylene Chloride	ND		20		ug/Kg			10/04/16 12:35	1
Naphthalene	**7.5**		3.9		ug/Kg			10/04/16 12:35	1
n-Butylbenzene	ND		3.9		ug/Kg			10/04/16 12:35	1
N-Propylbenzene	ND		2.0		ug/Kg			10/04/16 12:35	1
o-Xylene	ND		2.0		ug/Kg			10/04/16 12:35	1
sec-Butylbenzene	ND		3.9		ug/Kg			10/04/16 12:35	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160075-1

Client Sample ID: LT-9-4
Date Collected: 09/21/16 12:43
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-25
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		2.0		ug/Kg			10/04/16 12:35	1
tert-Butylbenzene	ND		3.9		ug/Kg			10/04/16 12:35	1
Tetrachloroethene	ND		2.0		ug/Kg			10/04/16 12:35	1
Toluene	ND		2.0		ug/Kg			10/04/16 12:35	1
trans-1,2-Dichloroethene	ND		2.0		ug/Kg			10/04/16 12:35	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg			10/04/16 12:35	1
Trichloroethene	ND		2.0		ug/Kg			10/04/16 12:35	1
Trichlorofluoromethane	ND		3.9		ug/Kg			10/04/16 12:35	1
Vinyl chloride	ND		3.9		ug/Kg			10/04/16 12:35	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/Kg			10/04/16 12:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*112*		*79 - 123*		*10/04/16 12:35*	*1*
4-Bromofluorobenzene (Surr)	*103*		*79 - 120*		*10/04/16 12:35*	*1*
Dibromofluoromethane (Surr)	*115*		*60 - 120*		*10/04/16 12:35*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
1,4-Dichlorobenzene	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2,4,5-Trichlorophenol	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2,4,6-Trichlorophenol	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2,4-Dichlorophenol	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2,4-Dimethylphenol	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2,4-Dinitrophenol	ND		66000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2,4-Dinitrotoluene	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2,6-Dinitrotoluene	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2-Chloronaphthalene	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2-Chlorophenol	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2-Methylnaphthalene	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2-Methylphenol	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2-Nitroaniline	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
2-Nitrophenol	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
3,3'-Dichlorobenzidine	ND		83000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
3-Nitroaniline	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
4,6-Dinitro-2-methylphenol	ND		42000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
4-Bromophenyl phenyl ether	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
4-Chloro-3-methylphenol	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
4-Chloroaniline	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
4-Chlorophenyl phenyl ether	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
3-Methylphenol + 4-Methylphenol	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
4-Nitroaniline	ND		83000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
4-Nitrophenol	ND		83000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Acenaphthene	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Acenaphthylene	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Aniline	ND		42000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Anthracene	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Benzidine	ND		130000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Benzo[a]anthracene	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Benzo[a]pyrene	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:31	50

Client Sample ID: LT-9-4
Date Collected: 09/21/16 12:43
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-25
Matrix: Solid

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Benzo[g,h,i]perylene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Benzo[k]fluoranthene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Benzoic acid	ND		83000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Benzyl alcohol	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Bis(2-chloroethoxy)methane	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Bis(2-chloroethyl)ether	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Bis(2-ethylhexyl) phthalate	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Butyl benzyl phthalate	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Chrysene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Dibenz(a,h)anthracene	ND		42000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Dibenzofuran	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Diethyl phthalate	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Dimethyl phthalate	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Di-n-butyl phthalate	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Di-n-octyl phthalate	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Fluoranthene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Fluorene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Hexachlorobenzene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Hexachlorobutadiene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Hexachlorocyclopentadiene	ND		83000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Hexachloroethane	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Indeno[1,2,3-cd]pyrene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Isophorone	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Naphthalene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Nitrobenzene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
N-Nitrosodi-n-propylamine	ND		25000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
N-Nitrosodiphenylamine	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Pentachlorophenol	ND		83000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Phenanthrene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Phenol	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
Pyrene	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
bis (2-chloroisopropyl) ether	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50
N-Nitrosodimethylamine	ND		33000	ug/Kg		10/03/16 10:06	10/04/16 21:31	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*X*	*42 - 113*	*10/03/16 10:06*	*10/04/16 21:31*	*50*
2-Fluorophenol (Surr)	*0*	*X*	*18 - 138*	*10/03/16 10:06*	*10/04/16 21:31*	*50*
2,4,6-Tribromophenol (Surr)	*0*	*X*	*10 - 147*	*10/03/16 10:06*	*10/04/16 21:31*	*50*
Nitrobenzene-d5 (Surr)	*0*	*X*	*39 - 104*	*10/03/16 10:06*	*10/04/16 21:31*	*50*
Terphenyl-d14 (Surr)	*0*	*X*	*43 - 125*	*10/03/16 10:06*	*10/04/16 21:31*	*50*
Phenol-d6 (Surr)	*0*	*X*	*37 - 125*	*10/03/16 10:06*	*10/04/16 21:31*	*50*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	**3500**		850	ug/Kg			10/04/16 14:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*36*	*X*	*65 - 140*		*10/04/16 14:18*	*1*

Client Sample ID: LT-9-4

Date Collected: 09/21/16 12:43
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-25
Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	1700		99		mg/Kg		10/03/16 10:02	10/03/16 19:31	10
C23-C40	4400		99		mg/Kg		10/03/16 10:02	10/03/16 19:31	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*476*	*X*	*40 - 140*	*10/03/16 10:02*	*10/03/16 19:31*	*10*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:30	1
Aroclor 1221	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:30	1
Aroclor 1232	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:30	1
Aroclor 1242	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:30	1
Aroclor 1248	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:30	1
Aroclor 1254	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:30	1
Aroclor 1260	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*43*	*X*	*45 - 120*	*10/11/16 15:58*	*10/12/16 20:30*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	F1	9.9		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Arsenic	7.3		3.0		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Barium	100		1.5		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Beryllium	ND		0.50		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Cadmium	ND		0.50		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Chromium	18		0.99		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Cobalt	4.2		0.99		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Copper	60		2.0		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Lead	140		2.0		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Molybdenum	ND		2.0		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Nickel	14		2.0		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Selenium	ND		3.0		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Thallium	ND		9.9		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Vanadium	27		0.99		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Zinc	76		5.0		mg/Kg		10/03/16 08:18	10/04/16 16:52	5
Silver	ND		1.5		mg/Kg		10/03/16 08:18	10/04/16 16:52	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.066		0.020		mg/Kg		10/05/16 11:45	10/05/16 18:55	1

Client Sample ID: LT-9-8

Date Collected: 09/21/16 12:48
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-26
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		20		ug/Kg			10/04/16 18:46	1
1,1,1,2-Tetrachloroethane	ND		4.0		ug/Kg			10/04/16 18:46	1
1,1,1-Trichloroethane	ND		2.0		ug/Kg			10/04/16 18:46	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160075-1

Client Sample ID: LT-9-8
Date Collected: 09/21/16 12:48
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-26
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		4.0		ug/Kg			10/04/16 18:46	1
1,1,2-Trichloroethane	ND		2.0		ug/Kg			10/04/16 18:46	1
1,1-Dichloroethane	ND		2.0		ug/Kg			10/04/16 18:46	1
1,1-Dichloroethene	ND		4.0		ug/Kg			10/04/16 18:46	1
1,1-Dichloropropene	ND		2.0		ug/Kg			10/04/16 18:46	1
1,2,3-Trichlorobenzene	ND		4.0		ug/Kg			10/04/16 18:46	1
1,2,4-Trichlorobenzene	ND		9.9		ug/Kg			10/04/16 18:46	1
1,2,4-Trimethylbenzene	ND		4.0		ug/Kg			10/04/16 18:46	1
1,2-Dibromo-3-Chloropropane	ND		9.9		ug/Kg			10/04/16 18:46	1
1,2-Dichlorobenzene	ND		2.0		ug/Kg			10/04/16 18:46	1
1,2-Dichloroethane	ND		2.0		ug/Kg			10/04/16 18:46	1
1,2-Dichloropropane	ND		2.0		ug/Kg			10/04/16 18:46	1
1,3,5-Trimethylbenzene	ND		4.0		ug/Kg			10/04/16 18:46	1
1,3-Dichlorobenzene	ND		2.0		ug/Kg			10/04/16 18:46	1
1,3-Dichloropropane	ND		2.0		ug/Kg			10/04/16 18:46	1
1,4-Dichlorobenzene	ND		2.0		ug/Kg			10/04/16 18:46	1
2,2-Dichloropropane	ND		4.0		ug/Kg			10/04/16 18:46	1
2-Chlorotoluene	ND		4.0		ug/Kg			10/04/16 18:46	1
4-Chlorotoluene	ND		4.0		ug/Kg			10/04/16 18:46	1
p-Isopropyltoluene	**5.2**		2.0		ug/Kg			10/04/16 18:46	1
Benzene	ND		2.0		ug/Kg			10/04/16 18:46	1
Bromobenzene	ND		4.0		ug/Kg			10/04/16 18:46	1
Bromoform	ND		4.0		ug/Kg			10/04/16 18:46	1
Bromomethane	ND		4.0		ug/Kg			10/04/16 18:46	1
Carbon tetrachloride	ND		4.0		ug/Kg			10/04/16 18:46	1
Chlorobenzene	ND		2.0		ug/Kg			10/04/16 18:46	1
Bromochloromethane	ND		4.0		ug/Kg			10/04/16 18:46	1
Chloroethane	ND		4.0		ug/Kg			10/04/16 18:46	1
Chloroform	ND		2.0		ug/Kg			10/04/16 18:46	1
Chloromethane	ND		4.0		ug/Kg			10/04/16 18:46	1
cis-1,2-Dichloroethene	ND		2.0		ug/Kg			10/04/16 18:46	1
cis-1,3-Dichloropropene	ND		2.0		ug/Kg			10/04/16 18:46	1
Dibromochloromethane	ND		2.0		ug/Kg			10/04/16 18:46	1
Dibromomethane	ND		2.0		ug/Kg			10/04/16 18:46	1
Bromodichloromethane	ND		2.0		ug/Kg			10/04/16 18:46	1
Dichlorodifluoromethane	ND		4.0		ug/Kg			10/04/16 18:46	1
Ethylbenzene	ND		2.0		ug/Kg			10/04/16 18:46	1
Hexachlorobutadiene	ND		4.0		ug/Kg			10/04/16 18:46	1
Isopropylbenzene	ND		2.0		ug/Kg			10/04/16 18:46	1
m,p-Xylene	ND		4.0		ug/Kg			10/04/16 18:46	1
Methylene Chloride	ND		20		ug/Kg			10/04/16 18:46	1
Naphthalene	**6.1**		4.0		ug/Kg			10/04/16 18:46	1
n-Butylbenzene	ND		4.0		ug/Kg			10/04/16 18:46	1
N-Propylbenzene	ND		2.0		ug/Kg			10/04/16 18:46	1
o-Xylene	ND		2.0		ug/Kg			10/04/16 18:46	1
sec-Butylbenzene	ND		4.0		ug/Kg			10/04/16 18:46	1
Styrene	ND		2.0		ug/Kg			10/04/16 18:46	1
tert-Butylbenzene	ND		4.0		ug/Kg			10/04/16 18:46	1
Tetrachloroethene	ND		2.0		ug/Kg			10/04/16 18:46	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160075-1

Client Sample ID: LT-9-8
Date Collected: 09/21/16 12:48
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-26
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		2.0		ug/Kg			10/04/16 18:46	1
trans-1,2-Dichloroethene	ND		2.0		ug/Kg			10/04/16 18:46	1
trans-1,3-Dichloropropene	ND		2.0		ug/Kg			10/04/16 18:46	1
Trichloroethene	ND		2.0		ug/Kg			10/04/16 18:46	1
Trichlorofluoromethane	ND		4.0		ug/Kg			10/04/16 18:46	1
Vinyl chloride	ND		4.0		ug/Kg			10/04/16 18:46	1
1,2-Dibromoethane (EDB)	ND		2.0		ug/Kg			10/04/16 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*118*		*79 - 123*		*10/04/16 18:46*	*1*
4-Bromofluorobenzene (Surr)	*128*	*X*	*79 - 120*		*10/04/16 18:46*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 120*		*10/04/16 18:46*	*1*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
1,4-Dichlorobenzene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2,4,5-Trichlorophenol	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2,4,6-Trichlorophenol	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2,4-Dichlorophenol	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2,4-Dimethylphenol	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2,4-Dinitrophenol	ND		33000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2,4-Dinitrotoluene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2,6-Dinitrotoluene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2-Chloronaphthalene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2-Chlorophenol	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2-Methylnaphthalene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2-Methylphenol	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2-Nitroaniline	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
2-Nitrophenol	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
3,3'-Dichlorobenzidine	ND		41000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
3-Nitroaniline	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
4,6-Dinitro-2-methylphenol	ND		21000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
4-Bromophenyl phenyl ether	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
4-Chloro-3-methylphenol	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
4-Chloroaniline	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
4-Chlorophenyl phenyl ether	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
3-Methylphenol + 4-Methylphenol	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
4-Nitroaniline	ND		41000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
4-Nitrophenol	ND		41000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Acenaphthene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Acenaphthylene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Aniline	ND		21000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Anthracene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Benzidine	ND		66000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Benzo[a]anthracene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Benzo[a]pyrene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Benzo[b]fluoranthene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Benzo[g,h,i]perylene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Benzo[k]fluoranthene	ND		16000		ug/Kg		10/03/16 10:06	10/04/16 21:54	25

Client Sample ID: LT-9-8
Date Collected: 09/21/16 12:48
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-26
Matrix: Solid

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzoic acid	ND		41000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Benzyl alcohol	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Bis(2-chloroethoxy)methane	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Bis(2-chloroethyl)ether	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Bis(2-ethylhexyl) phthalate	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Butyl benzyl phthalate	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Chrysene	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Dibenz(a,h)anthracene	ND		21000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Dibenzofuran	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Diethyl phthalate	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Dimethyl phthalate	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Di-n-butyl phthalate	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Di-n-octyl phthalate	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Fluoranthene	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Fluorene	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Hexachlorobenzene	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Hexachlorobutadiene	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Hexachlorocyclopentadiene	ND		41000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Hexachloroethane	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Indeno[1,2,3-cd]pyrene	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Isophorone	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Naphthalene	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Nitrobenzene	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
N-Nitrosodi-n-propylamine	ND		12000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
N-Nitrosodiphenylamine	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Pentachlorophenol	ND		41000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Phenanthrene	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Phenol	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
Pyrene	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
bis (2-chloroisopropyl) ether	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25
N-Nitrosodimethylamine	ND		16000	ug/Kg		10/03/16 10:06	10/04/16 21:54	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*0*	*X*	*42 - 113*	*10/03/16 10:06*	*10/04/16 21:54*	*25*
2-Fluorophenol (Surr)	*0*	*X*	*18 - 138*	*10/03/16 10:06*	*10/04/16 21:54*	*25*
2,4,6-Tribromophenol (Surr)	*0*	*X*	*10 - 147*	*10/03/16 10:06*	*10/04/16 21:54*	*25*
Nitrobenzene-d5 (Surr)	*0*	*X*	*39 - 104*	*10/03/16 10:06*	*10/04/16 21:54*	*25*
Terphenyl-d14 (Surr)	*0*	*X*	*43 - 125*	*10/03/16 10:06*	*10/04/16 21:54*	*25*
Phenol-d6 (Surr)	*0*	*X*	*37 - 125*	*10/03/16 10:06*	*10/04/16 21:54*	*25*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	**1900**		790	ug/Kg			10/04/16 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*43*	*X*	*65 - 140*		*10/04/16 14:46*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	**950**		98	mg/Kg		10/03/16 10:02	10/03/16 19:52	10

Client Sample ID: LT-9-8

Date Collected: 09/21/16 12:48
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-26

Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C23-C40	2500		98		mg/Kg		10/03/16 10:02	10/03/16 19:52	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*121*		*40 - 140*	*10/03/16 10:02*	*10/03/16 19:52*	*10*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:46	1
Aroclor 1221	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:46	1
Aroclor 1232	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:46	1
Aroclor 1242	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:46	1
Aroclor 1248	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:46	1
Aroclor 1254	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:46	1
Aroclor 1260	ND	H	50		ug/Kg		10/11/16 15:58	10/12/16 20:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*45*		*45 - 120*	*10/11/16 15:58*	*10/12/16 20:46*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Arsenic	6.3		3.0		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Barium	83		1.5		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Beryllium	ND		0.50		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Cadmium	0.50		0.50		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Chromium	24		1.0		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Cobalt	3.7		1.0		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Copper	46		2.0		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Lead	120		2.0		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Molybdenum	ND		2.0		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Nickel	13		2.0		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Selenium	ND		3.0		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Thallium	ND		10		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Vanadium	25		1.0		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Zinc	75		5.0		mg/Kg		10/03/16 08:18	10/04/16 17:01	5
Silver	ND		1.5		mg/Kg		10/03/16 08:18	10/04/16 17:01	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.069		0.020		mg/Kg		10/05/16 11:45	10/05/16 18:58	1

Client Sample ID: LT-8-10.5

Date Collected: 09/21/16 13:07
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-29

Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		10		ug/Kg			10/05/16 14:38	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/Kg			10/05/16 14:38	1
1,1,1-Trichloroethane	ND		1.0		ug/Kg			10/05/16 14:38	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			10/05/16 14:38	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160075-1

Client Sample ID: LT-8-10.5
Date Collected: 09/21/16 13:07
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-29
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		1.0		ug/Kg			10/05/16 14:38	1
1,1-Dichloroethane	ND		1.0		ug/Kg			10/05/16 14:38	1
1,1-Dichloroethene	ND		2.0		ug/Kg			10/05/16 14:38	1
1,1-Dichloropropene	ND		1.0		ug/Kg			10/05/16 14:38	1
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg			10/05/16 14:38	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			10/05/16 14:38	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			10/05/16 14:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			10/05/16 14:38	1
1,2-Dichlorobenzene	ND		1.0		ug/Kg			10/05/16 14:38	1
1,2-Dichloroethane	ND		1.0		ug/Kg			10/05/16 14:38	1
1,2-Dichloropropane	ND		1.0		ug/Kg			10/05/16 14:38	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			10/05/16 14:38	1
1,3-Dichlorobenzene	ND		1.0		ug/Kg			10/05/16 14:38	1
1,3-Dichloropropane	ND		1.0		ug/Kg			10/05/16 14:38	1
1,4-Dichlorobenzene	ND		1.0		ug/Kg			10/05/16 14:38	1
2,2-Dichloropropane	ND		2.0		ug/Kg			10/05/16 14:38	1
2-Chlorotoluene	ND		2.0		ug/Kg			10/05/16 14:38	1
4-Chlorotoluene	ND		2.0		ug/Kg			10/05/16 14:38	1
p-Isopropyltoluene	ND		1.0		ug/Kg			10/05/16 14:38	1
Benzene	ND		1.0		ug/Kg			10/05/16 14:38	1
Bromobenzene	ND		2.0		ug/Kg			10/05/16 14:38	1
Bromoform	ND		2.0		ug/Kg			10/05/16 14:38	1
Bromomethane	ND		2.0		ug/Kg			10/05/16 14:38	1
Carbon tetrachloride	ND		2.0		ug/Kg			10/05/16 14:38	1
Chlorobenzene	ND		1.0		ug/Kg			10/05/16 14:38	1
Bromochloromethane	ND		2.0		ug/Kg			10/05/16 14:38	1
Chloroethane	ND		2.0		ug/Kg			10/05/16 14:38	1
Chloroform	ND		1.0		ug/Kg			10/05/16 14:38	1
Chloromethane	ND		2.0		ug/Kg			10/05/16 14:38	1
cis-1,2-Dichloroethene	ND		1.0		ug/Kg			10/05/16 14:38	1
cis-1,3-Dichloropropene	ND		1.0		ug/Kg			10/05/16 14:38	1
Dibromochloromethane	ND		1.0		ug/Kg			10/05/16 14:38	1
Dibromomethane	ND		1.0		ug/Kg			10/05/16 14:38	1
Bromodichloromethane	ND		1.0		ug/Kg			10/05/16 14:38	1
Dichlorodifluoromethane	ND		2.0		ug/Kg			10/05/16 14:38	1
Ethylbenzene	ND		1.0		ug/Kg			10/05/16 14:38	1
Hexachlorobutadiene	ND		2.0		ug/Kg			10/05/16 14:38	1
Isopropylbenzene	ND		1.0		ug/Kg			10/05/16 14:38	1
m,p-Xylene	ND		2.0		ug/Kg			10/05/16 14:38	1
Methylene Chloride	ND		10		ug/Kg			10/05/16 14:38	1
Naphthalene	ND		2.0		ug/Kg			10/05/16 14:38	1
n-Butylbenzene	ND		2.0		ug/Kg			10/05/16 14:38	1
N-Propylbenzene	ND		1.0		ug/Kg			10/05/16 14:38	1
o-Xylene	ND		1.0		ug/Kg			10/05/16 14:38	1
sec-Butylbenzene	ND		2.0		ug/Kg			10/05/16 14:38	1
Styrene	ND		1.0		ug/Kg			10/05/16 14:38	1
tert-Butylbenzene	ND		2.0		ug/Kg			10/05/16 14:38	1
Tetrachloroethene	ND		1.0		ug/Kg			10/05/16 14:38	1
Toluene	ND		1.0		ug/Kg			10/05/16 14:38	1

Client Sample ID: LT-8-10.5

Date Collected: 09/21/16 13:07
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-29
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0		ug/Kg			10/05/16 14:38	1
trans-1,3-Dichloropropene	ND		1.0		ug/Kg			10/05/16 14:38	1
Trichloroethene	ND		1.0		ug/Kg			10/05/16 14:38	1
Trichlorofluoromethane	ND		2.0		ug/Kg			10/05/16 14:38	1
Vinyl chloride	ND		2.0		ug/Kg			10/05/16 14:38	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/Kg			10/05/16 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*79 - 123*		*10/05/16 14:38*	*1*
4-Bromofluorobenzene (Surr)	*97*		*79 - 120*		*10/05/16 14:38*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 120*		*10/05/16 14:38*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			10/04/16 16:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*65 - 140*		*10/04/16 16:45*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/05/16 20:14	10/06/16 12:21	1
C23-C40	ND		5.0		mg/Kg		10/05/16 20:14	10/06/16 12:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*91*		*40 - 140*	*10/05/16 20:14*	*10/06/16 12:21*	*1*

Client Sample ID: LT-4-5

Date Collected: 09/21/16 12:51
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-31
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Arsenic	ND		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Barium	**43**		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Beryllium	ND		0.50		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Cadmium	ND		0.50		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Chromium	**15**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Cobalt	**3.7**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Copper	**9.6**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Lead	**4.4**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Molybdenum	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Nickel	**10**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Selenium	ND		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Thallium	ND		9.9		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Vanadium	**29**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Zinc	**28**		5.0		mg/Kg		10/04/16 17:44	10/05/16 22:06	5
Silver	ND		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:06	5

Client Sample ID: LT-4-5

Lab Sample ID: 440-160075-31

Date Collected: 09/21/16 12:51

Matrix: Solid

Date Received: 09/29/16 17:10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/04/16 21:12	10/05/16 21:42	1

Client Sample ID: LT-17-(Composite)

Lab Sample ID: 440-160075-41

Date Collected: 09/19/16 12:58

Matrix: Solid

Date Received: 09/29/16 17:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Arsenic	**12**		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Barium	**79**		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Beryllium	ND		0.50		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Cadmium	ND		0.50		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Chromium	**26**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Cobalt	**6.8**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Copper	**21**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Lead	**9.6**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Molybdenum	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Nickel	**19**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Selenium	ND		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Thallium	ND		9.9		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Vanadium	**41**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Zinc	**51**		5.0		mg/Kg		10/04/16 17:44	10/05/16 22:14	5
Silver	ND		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:14	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.022**		0.020		mg/Kg		10/04/16 21:12	10/05/16 19:56	1

Client Sample ID: LT-19-(Composite)

Lab Sample ID: 440-160075-42

Date Collected: 09/19/16 11:20

Matrix: Solid

Date Received: 09/29/16 17:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Arsenic	**3.4**		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Barium	**58**		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Beryllium	ND		0.49		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Cadmium	ND		0.49		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Chromium	**16**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Cobalt	**3.4**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Copper	**10**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Lead	**8.1**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Molybdenum	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Nickel	**10**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Selenium	ND		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Thallium	ND		9.9		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Vanadium	**28**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:16	5
Zinc	**31**		4.9		mg/Kg		10/04/16 17:44	10/05/16 22:16	5

Client Sample ID: LT-19-(Composite)

Lab Sample ID: 440-160075-42

Date Collected: 09/19/16 11:20
Matrix: Solid
Date Received: 09/29/16 17:10

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:16	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/04/16 21:12	10/05/16 19:59	1

Client Sample ID: LT-20-(Composite)

Lab Sample ID: 440-160075-43

Date Collected: 09/19/16 12:18
Matrix: Solid
Date Received: 09/29/16 17:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Arsenic	**6.0**		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Barium	**89**		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Beryllium	ND		0.50		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Cadmium	ND		0.50		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Chromium	**23**		1.0		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Cobalt	**3.6**		1.0		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Copper	**15**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Lead	**11**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Molybdenum	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Nickel	**13**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Selenium	ND		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Thallium	ND		10		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Vanadium	**32**		1.0		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Zinc	**44**		5.0		mg/Kg		10/04/16 17:44	10/05/16 22:18	5
Silver	ND		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:18	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.036**		0.020		mg/Kg		10/04/16 21:12	10/05/16 20:03	1

Client Sample ID: LT-22-(Composite)

Lab Sample ID: 440-160075-44

Date Collected: 09/19/16 11:49
Matrix: Solid
Date Received: 09/29/16 17:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Arsenic	**4.6**		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Barium	**50**		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Beryllium	ND		0.50		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Cadmium	ND		0.50		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Chromium	**16**		1.0		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Cobalt	**3.3**		1.0		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Copper	**11**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Lead	**8.6**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Molybdenum	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Nickel	**10**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:20	5

Client Sample ID: LT-22-(Composite)

Lab Sample ID: 440-160075-44

Date Collected: 09/19/16 11:49

Matrix: Solid

Date Received: 09/29/16 17:10

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Thallium	ND		10		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Vanadium	**29**		1.0		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Zinc	**31**		5.0		mg/Kg		10/04/16 17:44	10/05/16 22:20	5
Silver	ND		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:20	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.034**		0.020		mg/Kg		10/04/16 21:12	10/05/16 20:06	1

Client Sample ID: LT-26-(Composite)

Lab Sample ID: 440-160075-45

Date Collected: 09/20/16 09:40

Matrix: Solid

Date Received: 09/29/16 17:10

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		390		ug/Kg			10/04/16 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*65 - 140*		*10/04/16 17:13*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	**11**		5.0		mg/Kg		10/04/16 16:54	10/05/16 18:05	1
C23-C40	**39**		5.0		mg/Kg		10/04/16 16:54	10/05/16 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*64*		*40 - 140*	*10/04/16 16:54*	*10/05/16 18:05*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND	H	380		ug/Kg		10/06/16 20:34	10/07/16 20:46	1
Aroclor 1221	ND	H	380		ug/Kg		10/06/16 20:34	10/07/16 20:46	1
Aroclor 1232	ND	H	380		ug/Kg		10/06/16 20:34	10/07/16 20:46	1
Aroclor 1242	ND	H	380		ug/Kg		10/06/16 20:34	10/07/16 20:46	1
Aroclor 1248	ND	H	380		ug/Kg		10/06/16 20:34	10/07/16 20:46	1
Aroclor 1254	ND	H	380		ug/Kg		10/06/16 20:34	10/07/16 20:46	1
Aroclor 1260	ND	H	380		ug/Kg		10/06/16 20:34	10/07/16 20:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*76*		*45 - 120*	*10/06/16 20:34*	*10/07/16 20:46*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		50		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Arsenic	ND		15		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Barium	**90**		7.5		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Beryllium	ND		2.5		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Cadmium	**7.1**		2.5		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Chromium	**16**		5.0		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Cobalt	ND		5.0		mg/Kg		10/05/16 08:31	10/06/16 09:28	25

Client Sample ID: LT-26-(Composite)

Lab Sample ID: 440-160075-45

Date Collected: 09/20/16 09:40

Matrix: Solid

Date Received: 09/29/16 17:10

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Copper	ND		10		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Lead	**79**		10		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Molybdenum	ND		10		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Nickel	ND		10		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Selenium	ND		15		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Thallium	ND		50		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Vanadium	**16**		5.0		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Zinc	**48**		25		mg/Kg		10/05/16 08:31	10/06/16 09:28	25
Silver	ND		7.5		mg/Kg		10/05/16 08:31	10/06/16 09:28	25

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.12**		0.020		mg/Kg		10/04/16 21:12	10/05/16 22:26	1

Client Sample ID: LT-27-(Composite)

Lab Sample ID: 440-160075-46

Date Collected: 09/20/16 10:28

Matrix: Solid

Date Received: 09/29/16 17:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Arsenic	ND		3.0		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Barium	**86**		1.5		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Beryllium	ND		0.50		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Cadmium	ND		0.50		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Chromium	**11**		0.99		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Cobalt	**1.8**		0.99		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Copper	**8.7**		2.0		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Lead	**12**		2.0		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Nickel	**6.7**		2.0		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Selenium	ND		3.0		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Thallium	ND		9.9		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Vanadium	**19**		0.99		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Zinc	**30**		5.0		mg/Kg		10/05/16 08:31	10/05/16 22:28	5
Silver	ND		1.5		mg/Kg		10/05/16 08:31	10/05/16 22:28	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.15**		0.020		mg/Kg		10/04/16 21:12	10/05/16 22:33	1

Client Sample ID: LT-12-(Composite)

Lab Sample ID: 440-160075-47

Date Collected: 09/22/16 10:18

Matrix: Solid

Date Received: 09/29/16 17:10

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:02	1
Aroclor 1221	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:02	1
Aroclor 1232	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:02	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160075-1

Client Sample ID: LT-12-(Composite)
Date Collected: 09/22/16 10:18
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-47
Matrix: Solid

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1242	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:02	1
Aroclor 1248	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:02	1
Aroclor 1254	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:02	1
Aroclor 1260	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*73*		*45 - 120*	*10/06/16 20:34*	*10/07/16 21:02*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Arsenic	**5.9**		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Barium	**37**		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Beryllium	ND		0.49		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Cadmium	ND		0.49		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Chromium	**15**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Cobalt	**4.1**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Copper	**12**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Lead	**5.1**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Molybdenum	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Nickel	**10**		2.0		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Selenium	ND		3.0		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Thallium	ND		9.9		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Vanadium	**27**		0.99		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Zinc	**34**		4.9		mg/Kg		10/04/16 17:44	10/05/16 22:21	5
Silver	ND		1.5		mg/Kg		10/04/16 17:44	10/05/16 22:21	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/04/16 21:12	10/05/16 21:39	1

Method Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160075-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
8015B	Gasoline Range Organics - (GC)	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
7471A	Mercury (CVAA)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client Sample ID: LT-21-6

Date Collected: 09/19/16 10:05
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.00 g	50 mL	360068	10/04/16 17:44	DT	TAL IRV
Total/NA	Analysis	6010B		5			360465	10/05/16 21:54	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360250	10/05/16 11:45	DB	TAL IRV
Total/NA	Analysis	7471A		1			360422	10/05/16 18:41	DB	TAL IRV

Client Sample ID: LT-21-2

Date Collected: 09/19/16 10:07
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	360068	10/04/16 17:44	DT	TAL IRV
Total/NA	Analysis	6010B		10			360576	10/06/16 09:25	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360101	10/04/16 21:12	DB	TAL IRV
Total/NA	Analysis	7471A		1			360424	10/05/16 21:46	DB	TAL IRV

Client Sample ID: LT-23-1a

Date Collected: 09/20/16 11:35
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-15

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	360068	10/04/16 17:44	DT	TAL IRV
Total/NA	Analysis	6010B		5			360465	10/05/16 22:04	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360101	10/04/16 21:12	DB	TAL IRV
Total/NA	Analysis	7471A		1			360424	10/05/16 21:53	DB	TAL IRV

Client Sample ID: LT-32-4

Date Collected: 09/20/16 13:15
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-18

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	360068	10/05/16 08:31	DT	TAL IRV
Total/NA	Analysis	6010B		10			360576	10/06/16 09:27	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360250	10/05/16 11:45	DB	TAL IRV
Total/NA	Analysis	7471A		1			360422	10/05/16 18:52	DB	TAL IRV

Client Sample ID: LT-9-4

Date Collected: 09/21/16 12:43
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-25

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	2.54 g	10 mL	359882	10/04/16 12:35	AA	TAL IRV
Total/NA	Prep	3546			15.03 g	2 mL	359695	10/03/16 10:06	LEG	TAL IRV
Total/NA	Analysis	8270C		50			359964	10/04/16 21:31	DF	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160075-1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	2.34 g	10 mL	359914	10/04/16 14:18	JB	TAL IRV
Total/NA	Prep	3546			15.21 g	2 mL	359694	10/03/16 10:02	LEG	TAL IRV
Total/NA	Analysis	8015B		10			359775	10/03/16 19:31	AMH	TAL IRV
Total/NA	Prep	3546			15.09 g	2 mL	361558	10/11/16 15:58	LEG	TAL IRV
Total/NA	Analysis	8082		1			361794	10/12/16 20:30	JM	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	359662	10/03/16 08:18	DT	TAL IRV
Total/NA	Analysis	6010B		5			360105	10/04/16 16:52	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360250	10/05/16 11:45	DB	TAL IRV
Total/NA	Analysis	7471A		1			360422	10/05/16 18:55	DB	TAL IRV

Client Sample ID: LT-9-8

Date Collected: 09/21/16 12:48
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-26

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	2.53 g	10 mL	359882	10/04/16 18:46	AA	TAL IRV
Total/NA	Prep	3546			15.14 g	2 mL	359695	10/03/16 10:06	LEG	TAL IRV
Total/NA	Analysis	8270C		25			359964	10/04/16 21:54	DF	TAL IRV
Total/NA	Analysis	8015B		1	2.52 g	10 mL	359914	10/04/16 14:46	JB	TAL IRV
Total/NA	Prep	3546			15.28 g	2 mL	359694	10/03/16 10:02	LEG	TAL IRV
Total/NA	Analysis	8015B		10			359775	10/03/16 19:52	AMH	TAL IRV
Total/NA	Prep	3546			15.03 g	2 mL	361558	10/11/16 15:58	LEG	TAL IRV
Total/NA	Analysis	8082		1			361794	10/12/16 20:46	JM	TAL IRV
Total/NA	Prep	3050B			2.00 g	50 mL	359662	10/03/16 08:18	DT	TAL IRV
Total/NA	Analysis	6010B		5			360105	10/04/16 17:01	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360250	10/05/16 11:45	DB	TAL IRV
Total/NA	Analysis	7471A		1			360422	10/05/16 18:58	DB	TAL IRV

Client Sample ID: LT-8-10.5

Date Collected: 09/21/16 13:07
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-29

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.01 g	10 mL	360130	10/05/16 14:38	ATL	TAL IRV
Total/NA	Analysis	8015B		1	5.01 g	10 mL	359914	10/04/16 16:45	JB	TAL IRV
Total/NA	Prep	3546			15.06 g	1 mL	360407	10/05/16 20:14	VA	TAL IRV
Total/NA	Analysis	8015B		1			360534	10/06/16 12:21	AMH	TAL IRV

Client Sample ID: LT-4-5

Date Collected: 09/21/16 12:51
Date Received: 09/29/16 17:10

Lab Sample ID: 440-160075-31

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	360068	10/04/16 17:44	DT	TAL IRV
Total/NA	Analysis	6010B		5			360465	10/05/16 22:06	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360101	10/04/16 21:12	DB	TAL IRV
Total/NA	Analysis	7471A		1			360424	10/05/16 21:42	DB	TAL IRV

Client Sample ID: LT-17-(Composite)

Lab Sample ID: 440-160075-41

Date Collected: 09/19/16 12:58

Matrix: Solid

Date Received: 09/29/16 17:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	360068	10/04/16 17:44	DT	TAL IRV
Total/NA	Analysis	6010B		5			360465	10/05/16 22:14	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360101	10/04/16 21:12	DB	TAL IRV
Total/NA	Analysis	7471A		1			360423	10/05/16 19:56	DB	TAL IRV

Client Sample ID: LT-19-(Composite)

Lab Sample ID: 440-160075-42

Date Collected: 09/19/16 11:20

Matrix: Solid

Date Received: 09/29/16 17:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	360068	10/04/16 17:44	DT	TAL IRV
Total/NA	Analysis	6010B		5			360465	10/05/16 22:16	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360101	10/04/16 21:12	DB	TAL IRV
Total/NA	Analysis	7471A		1			360423	10/05/16 19:59	DB	TAL IRV

Client Sample ID: LT-20-(Composite)

Lab Sample ID: 440-160075-43

Date Collected: 09/19/16 12:18

Matrix: Solid

Date Received: 09/29/16 17:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.00 g	50 mL	360068	10/04/16 17:44	DT	TAL IRV
Total/NA	Analysis	6010B		5			360465	10/05/16 22:18	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360101	10/04/16 21:12	DB	TAL IRV
Total/NA	Analysis	7471A		1			360423	10/05/16 20:03	DB	TAL IRV

Client Sample ID: LT-22-(Composite)

Lab Sample ID: 440-160075-44

Date Collected: 09/19/16 11:49

Matrix: Solid

Date Received: 09/29/16 17:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	360068	10/04/16 17:44	DT	TAL IRV
Total/NA	Analysis	6010B		5			360465	10/05/16 22:20	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360101	10/04/16 21:12	DB	TAL IRV
Total/NA	Analysis	7471A		1			360423	10/05/16 20:06	DB	TAL IRV

Client Sample ID: LT-26-(Composite)

Lab Sample ID: 440-160075-45

Date Collected: 09/20/16 09:40

Matrix: Solid

Date Received: 09/29/16 17:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.08 g	10 mL	359914	10/04/16 17:13	JB	TAL IRV
Total/NA	Prep	3546			15.12 g	1 mL	360059	10/04/16 16:54	LEG	TAL IRV
Total/NA	Analysis	8015B		1			360322	10/05/16 18:05	AMH	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160075-1

Client Sample ID: LT-26-(Composite)

Lab Sample ID: 440-160075-45

Date Collected: 09/20/16 09:40
Matrix: Solid
Date Received: 09/29/16 17:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			1.95 g	2 mL	360624	10/06/16 20:34	VA	TAL IRV
Total/NA	Analysis	8082		1			360865	10/07/16 20:46	JM	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	360068	10/05/16 08:31	DT	TAL IRV
Total/NA	Analysis	6010B		25			360576	10/06/16 09:28	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360101	10/04/16 21:12	DB	TAL IRV
Total/NA	Analysis	7471A		1			360424	10/05/16 22:26	DB	TAL IRV

Client Sample ID: LT-27-(Composite)

Lab Sample ID: 440-160075-46

Date Collected: 09/20/16 10:28
Matrix: Solid
Date Received: 09/29/16 17:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	360068	10/05/16 08:31	DT	TAL IRV
Total/NA	Analysis	6010B		5			360465	10/05/16 22:28	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360101	10/04/16 21:12	DB	TAL IRV
Total/NA	Analysis	7471A		1			360424	10/05/16 22:33	DB	TAL IRV

Client Sample ID: LT-12-(Composite)

Lab Sample ID: 440-160075-47

Date Collected: 09/22/16 10:18
Matrix: Solid
Date Received: 09/29/16 17:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.35 g	2 mL	360624	10/06/16 20:34	VA	TAL IRV
Total/NA	Analysis	8082		1			360865	10/07/16 21:02	JM	TAL IRV
Total/NA	Prep	3050B			2.03 g	50 mL	360068	10/04/16 17:44	DT	TAL IRV
Total/NA	Analysis	6010B		5			360465	10/05/16 22:21	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360101	10/04/16 21:12	DB	TAL IRV
Total/NA	Analysis	7471A		1			360424	10/05/16 21:39	DB	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160075-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-359882/4
Matrix: Solid
Analysis Batch: 359882

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		10		ug/Kg			10/04/16 09:16	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/Kg			10/04/16 09:16	1
1,1,1-Trichloroethane	ND		1.0		ug/Kg			10/04/16 09:16	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			10/04/16 09:16	1
1,1,2-Trichloroethane	ND		1.0		ug/Kg			10/04/16 09:16	1
1,1-Dichloroethane	ND		1.0		ug/Kg			10/04/16 09:16	1
1,1-Dichloroethene	ND		2.0		ug/Kg			10/04/16 09:16	1
1,1-Dichloropropene	ND		1.0		ug/Kg			10/04/16 09:16	1
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg			10/04/16 09:16	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			10/04/16 09:16	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			10/04/16 09:16	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			10/04/16 09:16	1
1,2-Dichlorobenzene	ND		1.0		ug/Kg			10/04/16 09:16	1
1,2-Dichloroethane	ND		1.0		ug/Kg			10/04/16 09:16	1
1,2-Dichloropropane	ND		1.0		ug/Kg			10/04/16 09:16	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			10/04/16 09:16	1
1,3-Dichlorobenzene	ND		1.0		ug/Kg			10/04/16 09:16	1
1,3-Dichloropropane	ND		1.0		ug/Kg			10/04/16 09:16	1
1,4-Dichlorobenzene	ND		1.0		ug/Kg			10/04/16 09:16	1
2,2-Dichloropropane	ND		2.0		ug/Kg			10/04/16 09:16	1
2-Chlorotoluene	ND		2.0		ug/Kg			10/04/16 09:16	1
4-Chlorotoluene	ND		2.0		ug/Kg			10/04/16 09:16	1
p-Isopropyltoluene	ND		1.0		ug/Kg			10/04/16 09:16	1
Benzene	ND		1.0		ug/Kg			10/04/16 09:16	1
Bromobenzene	ND		2.0		ug/Kg			10/04/16 09:16	1
Bromoform	ND		2.0		ug/Kg			10/04/16 09:16	1
Bromomethane	ND		2.0		ug/Kg			10/04/16 09:16	1
Carbon tetrachloride	ND		2.0		ug/Kg			10/04/16 09:16	1
Chlorobenzene	ND		1.0		ug/Kg			10/04/16 09:16	1
Bromochloromethane	ND		2.0		ug/Kg			10/04/16 09:16	1
Chloroethane	ND		2.0		ug/Kg			10/04/16 09:16	1
Chloroform	ND		1.0		ug/Kg			10/04/16 09:16	1
Chloromethane	ND		2.0		ug/Kg			10/04/16 09:16	1
cis-1,2-Dichloroethene	ND		1.0		ug/Kg			10/04/16 09:16	1
cis-1,3-Dichloropropene	ND		1.0		ug/Kg			10/04/16 09:16	1
Dibromochloromethane	ND		1.0		ug/Kg			10/04/16 09:16	1
Dibromomethane	ND		1.0		ug/Kg			10/04/16 09:16	1
Bromodichloromethane	ND		1.0		ug/Kg			10/04/16 09:16	1
Dichlorodifluoromethane	ND		2.0		ug/Kg			10/04/16 09:16	1
Ethylbenzene	ND		1.0		ug/Kg			10/04/16 09:16	1
Hexachlorobutadiene	ND		2.0		ug/Kg			10/04/16 09:16	1
Isopropylbenzene	ND		1.0		ug/Kg			10/04/16 09:16	1
m,p-Xylene	ND		2.0		ug/Kg			10/04/16 09:16	1
Methylene Chloride	ND		10		ug/Kg			10/04/16 09:16	1
Naphthalene	ND		2.0		ug/Kg			10/04/16 09:16	1
n-Butylbenzene	ND		2.0		ug/Kg			10/04/16 09:16	1
N-Propylbenzene	ND		1.0		ug/Kg			10/04/16 09:16	1
o-Xylene	ND		1.0		ug/Kg			10/04/16 09:16	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-359882/4
Matrix: Solid
Analysis Batch: 359882

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		2.0		ug/Kg			10/04/16 09:16	1
Styrene	ND		1.0		ug/Kg			10/04/16 09:16	1
tert-Butylbenzene	ND		2.0		ug/Kg			10/04/16 09:16	1
Tetrachloroethene	ND		1.0		ug/Kg			10/04/16 09:16	1
Toluene	ND		1.0		ug/Kg			10/04/16 09:16	1
trans-1,2-Dichloroethene	ND		1.0		ug/Kg			10/04/16 09:16	1
trans-1,3-Dichloropropene	ND		1.0		ug/Kg			10/04/16 09:16	1
Trichloroethene	ND		1.0		ug/Kg			10/04/16 09:16	1
Trichlorofluoromethane	ND		2.0		ug/Kg			10/04/16 09:16	1
Vinyl chloride	ND		2.0		ug/Kg			10/04/16 09:16	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/Kg			10/04/16 09:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*79 - 123*		*10/04/16 09:16*	*1*
4-Bromofluorobenzene (Surr)	*101*		*79 - 120*		*10/04/16 09:16*	*1*
Dibromofluoromethane (Surr)	*80*		*60 - 120*		*10/04/16 09:16*	*1*

Lab Sample ID: LCS 440-359882/14
Matrix: Solid
Analysis Batch: 359882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	50.0	50.6		ug/Kg		101	60 - 135
1,1,1,2-Tetrachloroethane	50.0	51.4		ug/Kg		103	70 - 130
1,1,1-Trichloroethane	50.0	47.4		ug/Kg		95	65 - 135
1,1,2,2-Tetrachloroethane	50.0	54.1		ug/Kg		108	55 - 140
1,1,2-Trichloroethane	50.0	51.8		ug/Kg		104	65 - 135
1,1-Dichloroethane	50.0	45.7		ug/Kg		91	70 - 130
1,1-Dichloroethene	50.0	48.2		ug/Kg		96	70 - 125
1,1-Dichloropropene	50.0	47.0		ug/Kg		94	70 - 130
1,2,3-Trichlorobenzene	50.0	51.3		ug/Kg		103	60 - 130
1,2,4-Trichlorobenzene	50.0	50.5		ug/Kg		101	70 - 135
1,2,4-Trimethylbenzene	50.0	48.5		ug/Kg		97	70 - 125
1,2-Dibromo-3-Chloropropane	50.0	49.0		ug/Kg		98	50 - 135
1,2-Dichlorobenzene	50.0	48.4		ug/Kg		97	75 - 120
1,2-Dichloroethane	50.0	50.2		ug/Kg		100	60 - 140
1,2-Dichloropropane	50.0	52.9		ug/Kg		106	70 - 130
1,3,5-Trimethylbenzene	50.0	49.2		ug/Kg		98	70 - 125
1,3-Dichlorobenzene	50.0	45.7		ug/Kg		91	75 - 125
1,3-Dichloropropane	50.0	48.5		ug/Kg		97	70 - 125
1,4-Dichlorobenzene	50.0	46.1		ug/Kg		92	75 - 120
2,2-Dichloropropane	50.0	47.3		ug/Kg		95	60 - 145
2-Chlorotoluene	50.0	47.7		ug/Kg		95	70 - 125
4-Chlorotoluene	50.0	48.0		ug/Kg		96	75 - 125
p-Isopropyltoluene	50.0	47.7		ug/Kg		95	75 - 125
Benzene	50.0	47.9		ug/Kg		96	65 - 120
Bromobenzene	50.0	50.9		ug/Kg		102	75 - 120
Bromoform	50.0	54.6		ug/Kg		109	55 - 135

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-359882/14
Matrix: Solid
Analysis Batch: 359882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	50.0	48.9		ug/Kg		98	60 - 145
Carbon tetrachloride	50.0	47.8		ug/Kg		96	65 - 140
Chlorobenzene	50.0	46.2		ug/Kg		92	75 - 120
Bromochloromethane	50.0	52.5		ug/Kg		105	70 - 135
Chloroethane	50.0	48.5		ug/Kg		97	60 - 140
Chloroform	50.0	48.8		ug/Kg		98	70 - 130
Chloromethane	50.0	43.5		ug/Kg		87	45 - 145
cis-1,2-Dichloroethene	50.0	52.7		ug/Kg		105	70 - 125
cis-1,3-Dichloropropene	50.0	53.6		ug/Kg		107	75 - 125
Dibromochloromethane	50.0	50.4		ug/Kg		101	65 - 140
Dibromomethane	50.0	54.4		ug/Kg		109	70 - 130
Bromodichloromethane	50.0	52.1		ug/Kg		104	70 - 135
Dichlorodifluoromethane	50.0	42.4		ug/Kg		85	35 - 160
Ethylbenzene	50.0	46.7		ug/Kg		93	70 - 125
Hexachlorobutadiene	50.0	47.1		ug/Kg		94	60 - 135
Isopropylbenzene	50.0	47.4		ug/Kg		95	75 - 130
m,p-Xylene	50.0	49.3		ug/Kg		99	70 - 125
Methylene Chloride	50.0	49.2		ug/Kg		98	55 - 135
Naphthalene	50.0	55.0		ug/Kg		110	55 - 135
n-Butylbenzene	50.0	49.0		ug/Kg		98	70 - 130
N-Propylbenzene	50.0	49.0		ug/Kg		98	70 - 130
o-Xylene	50.0	47.3		ug/Kg		95	70 - 125
sec-Butylbenzene	50.0	48.3		ug/Kg		97	70 - 125
Styrene	50.0	49.6		ug/Kg		99	75 - 130
tert-Butylbenzene	50.0	47.8		ug/Kg		96	70 - 125
Tetrachloroethene	50.0	44.2		ug/Kg		88	70 - 125
Toluene	50.0	47.6		ug/Kg		95	70 - 125
trans-1,2-Dichloroethene	50.0	51.3		ug/Kg		103	70 - 125
trans-1,3-Dichloropropene	50.0	51.9		ug/Kg		104	70 - 135
Trichloroethene	50.0	48.5		ug/Kg		97	70 - 125
Trichlorofluoromethane	50.0	48.1		ug/Kg		96	60 - 145
Vinyl chloride	50.0	45.1		ug/Kg		90	55 - 135
1,2-Dibromoethane (EDB)	50.0	53.4		ug/Kg		107	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*79 - 123*
4-Bromofluorobenzene (Surr)	*101*		*79 - 120*
Dibromofluoromethane (Surr)	*102*		*60 - 120*

Lab Sample ID: 440-160315-A-1 MS
Matrix: Solid
Analysis Batch: 359882

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	ND		50.0	55.4		ug/Kg		111	50 - 150
1,1,1,2-Tetrachloroethane	ND		50.0	52.1		ug/Kg		104	65 - 145
1,1,1-Trichloroethane	ND		50.0	49.0		ug/Kg		98	65 - 145
1,1,2,2-Tetrachloroethane	ND	F1	50.0	4.42	F1	ug/Kg		9	40 - 160

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-160315-A-1 MS
Matrix: Solid
Analysis Batch: 359882

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	ND		50.0	53.5		ug/Kg		107	65 - 140
1,1-Dichloroethane	ND		50.0	47.5		ug/Kg		95	65 - 135
1,1-Dichloroethene	ND		50.0	51.1		ug/Kg		102	65 - 135
1,1-Dichloropropene	ND		50.0	47.7		ug/Kg		95	65 - 135
1,2,3-Trichlorobenzene	ND		50.0	47.3		ug/Kg		95	45 - 145
1,2,4-Trichlorobenzene	ND		50.0	46.0		ug/Kg		92	50 - 140
1,2,4-Trimethylbenzene	2.3		50.0	51.1		ug/Kg		97	65 - 140
1,2-Dibromo-3-Chloropropane	ND		50.0	48.2		ug/Kg		96	40 - 150
1,2-Dichlorobenzene	ND		50.0	48.8		ug/Kg		98	70 - 130
1,2-Dichloroethane	ND		50.0	52.1		ug/Kg		103	60 - 150
1,2-Dichloropropane	ND		50.0	53.8		ug/Kg		108	65 - 130
1,3,5-Trimethylbenzene	ND		50.0	50.5		ug/Kg		101	65 - 135
1,3-Dichlorobenzene	ND		50.0	44.7		ug/Kg		89	70 - 130
1,3-Dichloropropane	2.5		50.0	51.9		ug/Kg		99	65 - 140
1,4-Dichlorobenzene	ND		50.0	45.1		ug/Kg		90	70 - 130
2,2-Dichloropropane	ND		50.0	47.1		ug/Kg		94	65 - 150
2-Chlorotoluene	ND		50.0	48.0		ug/Kg		96	60 - 135
4-Chlorotoluene	ND		50.0	46.9		ug/Kg		94	65 - 135
p-Isopropyltoluene	ND		50.0	46.9		ug/Kg		94	60 - 140
Benzene	110		50.0	153		ug/Kg		95	65 - 130
Bromobenzene	ND		50.0	51.0		ug/Kg		102	65 - 140
Bromoform	ND		50.0	54.1		ug/Kg		108	50 - 145
Bromomethane	ND		50.0	48.5		ug/Kg		97	60 - 155
Carbon tetrachloride	ND		50.0	49.5		ug/Kg		99	60 - 145
Chlorobenzene	3.6		50.0	49.2		ug/Kg		91	70 - 130
Bromochloromethane	ND		50.0	54.4		ug/Kg		109	65 - 145
Chloroethane	ND		50.0	50.0		ug/Kg		100	60 - 150
Chloroform	ND		50.0	48.3		ug/Kg		97	65 - 135
Chloromethane	ND		50.0	45.2		ug/Kg		90	40 - 145
cis-1,2-Dichloroethene	ND		50.0	53.9		ug/Kg		108	65 - 135
cis-1,3-Dichloropropene	ND		50.0	54.8		ug/Kg		110	70 - 135
Dibromochloromethane	ND		50.0	51.9		ug/Kg		104	60 - 145
Dibromomethane	ND		50.0	55.1		ug/Kg		110	65 - 140
Bromodichloromethane	ND		50.0	52.8		ug/Kg		106	65 - 145
Dichlorodifluoromethane	ND		50.0	45.4		ug/Kg		91	30 - 160
Ethylbenzene	9.7		50.0	55.8		ug/Kg		92	70 - 135
Hexachlorobutadiene	ND		50.0	42.9		ug/Kg		86	50 - 145
Isopropylbenzene	ND		50.0	47.4		ug/Kg		95	70 - 145
m,p-Xylene	11		50.0	60.9		ug/Kg		99	70 - 130
Methylene Chloride	ND		50.0	51.1		ug/Kg		102	55 - 145
Naphthalene	16		50.0	70.8		ug/Kg		111	40 - 150
n-Butylbenzene	ND		50.0	47.4		ug/Kg		95	55 - 145
N-Propylbenzene	2.1		50.0	50.9		ug/Kg		98	65 - 140
o-Xylene	9.5		50.0	58.6		ug/Kg		98	65 - 130
sec-Butylbenzene	ND		50.0	46.9		ug/Kg		94	60 - 135
Styrene	7.9		50.0	58.7		ug/Kg		102	70 - 140
tert-Butylbenzene	ND		50.0	47.6		ug/Kg		95	60 - 140
Tetrachloroethene	ND		50.0	46.2		ug/Kg		92	65 - 135

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-160315-A-1 MS
Matrix: Solid
Analysis Batch: 359882

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	54		50.0	96.4		ug/Kg		85	70 - 130
trans-1,2-Dichloroethene	ND		50.0	53.0		ug/Kg		106	70 - 135
trans-1,3-Dichloropropene	ND		50.0	53.1		ug/Kg		106	60 - 145
Trichloroethene	ND	F1	50.0	84.9	F1	ug/Kg		170	65 - 140
Trichlorofluoromethane	ND		50.0	48.8		ug/Kg		98	55 - 155
Vinyl chloride	ND		50.0	45.9		ug/Kg		92	55 - 140
1,2-Dibromoethane (EDB)	ND		50.0	55.0		ug/Kg		110	65 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*79 - 123*
4-Bromofluorobenzene (Surr)	*102*		*79 - 120*
Dibromofluoromethane (Surr)	*63*		*60 - 120*

Lab Sample ID: 440-160315-A-1 MSD
Matrix: Solid
Analysis Batch: 359882

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		49.8	58.4		ug/Kg		117	50 - 150	5	30
1,1,1,2-Tetrachloroethane	ND		49.8	51.4		ug/Kg		103	65 - 145	1	20
1,1,1-Trichloroethane	ND		49.8	48.1		ug/Kg		96	65 - 145	2	20
1,1,2,2-Tetrachloroethane	ND	F1	49.8	ND	F1	ug/Kg		0	40 - 160	NC	30
1,1,2-Trichloroethane	ND		49.8	50.8		ug/Kg		102	65 - 140	5	30
1,1-Dichloroethane	ND		49.8	46.6		ug/Kg		94	65 - 135	2	25
1,1-Dichloroethene	ND		49.8	51.8		ug/Kg		104	65 - 135	1	25
1,1-Dichloropropene	ND		49.8	46.6		ug/Kg		94	65 - 135	2	20
1,2,3-Trichlorobenzene	ND		49.8	46.2		ug/Kg		93	45 - 145	2	30
1,2,4-Trichlorobenzene	ND		49.8	44.0		ug/Kg		88	50 - 140	4	30
1,2,4-Trimethylbenzene	2.3		49.8	49.8		ug/Kg		95	65 - 140	2	25
1,2-Dibromo-3-Chloropropane	ND		49.8	52.4		ug/Kg		105	40 - 150	8	30
1,2-Dichlorobenzene	ND		49.8	47.8		ug/Kg		96	70 - 130	2	25
1,2-Dichloroethane	ND		49.8	51.4		ug/Kg		102	60 - 150	1	25
1,2-Dichloropropane	ND		49.8	53.8		ug/Kg		108	65 - 130	0	20
1,3,5-Trimethylbenzene	ND		49.8	48.4		ug/Kg		97	65 - 135	4	25
1,3-Dichlorobenzene	ND		49.8	43.1		ug/Kg		86	70 - 130	4	25
1,3-Dichloropropane	2.5		49.8	53.6		ug/Kg		103	65 - 140	3	25
1,4-Dichlorobenzene	ND		49.8	44.3		ug/Kg		89	70 - 130	2	25
2,2-Dichloropropane	ND		49.8	46.0		ug/Kg		92	65 - 150	2	25
2-Chlorotoluene	ND		49.8	47.4		ug/Kg		95	60 - 135	1	25
4-Chlorotoluene	ND		49.8	45.3		ug/Kg		91	65 - 135	3	25
p-Isopropyltoluene	ND		49.8	45.0		ug/Kg		90	60 - 140	4	25
Benzene	110		49.8	169		ug/Kg		126	65 - 130	10	20
Bromobenzene	ND		49.8	49.6		ug/Kg		100	65 - 140	3	25
Bromoform	ND		49.8	54.3		ug/Kg		109	50 - 145	0	30
Bromomethane	ND		49.8	49.4		ug/Kg		99	60 - 155	2	25
Carbon tetrachloride	ND		49.8	47.4		ug/Kg		95	60 - 145	4	25
Chlorobenzene	3.6		49.8	48.0		ug/Kg		89	70 - 130	3	25
Bromochloromethane	ND		49.8	54.2		ug/Kg		109	65 - 145	0	25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-160315-A-1 MSD
Matrix: Solid
Analysis Batch: 359882

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroethane	ND		49.8	49.5		ug/Kg		99	60 - 150	1	25
Chloroform	ND		49.8	48.5		ug/Kg		97	65 - 135	0	20
Chloromethane	ND		49.8	44.9		ug/Kg		90	40 - 145	1	25
cis-1,2-Dichloroethene	ND		49.8	52.6		ug/Kg		106	65 - 135	3	25
cis-1,3-Dichloropropene	ND		49.8	53.6		ug/Kg		108	70 - 135	2	25
Dibromochloromethane	ND		49.8	51.2		ug/Kg		103	60 - 145	1	25
Dibromomethane	ND		49.8	55.1		ug/Kg		111	65 - 140	0	25
Bromodichloromethane	ND		49.8	51.0		ug/Kg		102	65 - 145	3	20
Dichlorodifluoromethane	ND		49.8	43.1		ug/Kg		87	30 - 160	5	35
Ethylbenzene	9.7		49.8	54.1		ug/Kg		89	70 - 135	3	25
Hexachlorobutadiene	ND		49.8	37.6		ug/Kg		75	50 - 145	13	35
Isopropylbenzene	ND		49.8	45.1		ug/Kg		91	70 - 145	5	25
m,p-Xylene	11		49.8	57.8		ug/Kg		93	70 - 130	5	25
Methylene Chloride	ND		49.8	51.3		ug/Kg		103	55 - 145	0	25
Naphthalene	16		49.8	76.8		ug/Kg		123	40 - 150	8	40
n-Butylbenzene	ND		49.8	44.7		ug/Kg		90	55 - 145	6	30
N-Propylbenzene	2.1		49.8	48.7		ug/Kg		94	65 - 140	4	25
o-Xylene	9.5		49.8	56.8		ug/Kg		95	65 - 130	3	25
sec-Butylbenzene	ND		49.8	45.6		ug/Kg		91	60 - 135	3	25
Styrene	7.9		49.8	57.2		ug/Kg		99	70 - 140	3	25
tert-Butylbenzene	ND		49.8	46.8		ug/Kg		94	60 - 140	2	25
Tetrachloroethene	ND		49.8	43.5		ug/Kg		87	65 - 135	6	25
Toluene	54		49.8	97.1		ug/Kg		87	70 - 130	1	20
trans-1,2-Dichloroethene	ND		49.8	52.2		ug/Kg		105	70 - 135	2	25
trans-1,3-Dichloropropene	ND		49.8	51.4		ug/Kg		103	60 - 145	3	25
Trichloroethene	ND	F1	49.8	84.0	F1	ug/Kg		169	65 - 140	1	25
Trichlorofluoromethane	ND		49.8	47.1		ug/Kg		95	55 - 155	4	25
Vinyl chloride	ND		49.8	43.1		ug/Kg		87	55 - 140	6	30
1,2-Dibromoethane (EDB)	ND		49.8	54.3		ug/Kg		109	65 - 140	1	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*79 - 123*
4-Bromofluorobenzene (Surr)	*100*		*79 - 120*
Dibromofluoromethane (Surr)	*33*	*X*	*60 - 120*

Lab Sample ID: MB 440-360130/8
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		10		ug/Kg			10/05/16 10:12	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/Kg			10/05/16 10:12	1
1,1,1-Trichloroethane	ND		1.0		ug/Kg			10/05/16 10:12	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			10/05/16 10:12	1
1,1,2-Trichloroethane	ND		1.0		ug/Kg			10/05/16 10:12	1
1,1-Dichloroethane	ND		1.0		ug/Kg			10/05/16 10:12	1
1,1-Dichloroethene	ND		2.0		ug/Kg			10/05/16 10:12	1
1,1-Dichloropropene	ND		1.0		ug/Kg			10/05/16 10:12	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-360130/8
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			10/05/16 10:12	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			10/05/16 10:12	1
1,2-Dichlorobenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
1,2-Dichloroethane	ND		1.0		ug/Kg			10/05/16 10:12	1
1,2-Dichloropropane	ND		1.0		ug/Kg			10/05/16 10:12	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
1,3-Dichlorobenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
1,3-Dichloropropane	ND		1.0		ug/Kg			10/05/16 10:12	1
1,4-Dichlorobenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
2,2-Dichloropropane	ND		2.0		ug/Kg			10/05/16 10:12	1
2-Chlorotoluene	ND		2.0		ug/Kg			10/05/16 10:12	1
4-Chlorotoluene	ND		2.0		ug/Kg			10/05/16 10:12	1
p-Isopropyltoluene	ND		1.0		ug/Kg			10/05/16 10:12	1
Benzene	ND		1.0		ug/Kg			10/05/16 10:12	1
Bromobenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
Bromoform	ND		2.0		ug/Kg			10/05/16 10:12	1
Bromomethane	ND		2.0		ug/Kg			10/05/16 10:12	1
Carbon tetrachloride	ND		2.0		ug/Kg			10/05/16 10:12	1
Chlorobenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
Bromochloromethane	ND		2.0		ug/Kg			10/05/16 10:12	1
Chloroethane	ND		2.0		ug/Kg			10/05/16 10:12	1
Chloroform	ND		1.0		ug/Kg			10/05/16 10:12	1
Chloromethane	ND		2.0		ug/Kg			10/05/16 10:12	1
cis-1,2-Dichloroethene	ND		1.0		ug/Kg			10/05/16 10:12	1
cis-1,3-Dichloropropene	ND		1.0		ug/Kg			10/05/16 10:12	1
Dibromochloromethane	ND		1.0		ug/Kg			10/05/16 10:12	1
Dibromomethane	ND		1.0		ug/Kg			10/05/16 10:12	1
Bromodichloromethane	ND		1.0		ug/Kg			10/05/16 10:12	1
Dichlorodifluoromethane	ND		2.0		ug/Kg			10/05/16 10:12	1
Ethylbenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
Hexachlorobutadiene	ND		2.0		ug/Kg			10/05/16 10:12	1
Isopropylbenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
m,p-Xylene	ND		2.0		ug/Kg			10/05/16 10:12	1
Methylene Chloride	ND		10		ug/Kg			10/05/16 10:12	1
Naphthalene	ND		2.0		ug/Kg			10/05/16 10:12	1
n-Butylbenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
N-Propylbenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
o-Xylene	ND		1.0		ug/Kg			10/05/16 10:12	1
sec-Butylbenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
Styrene	ND		1.0		ug/Kg			10/05/16 10:12	1
tert-Butylbenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
Tetrachloroethene	ND		1.0		ug/Kg			10/05/16 10:12	1
Toluene	ND		1.0		ug/Kg			10/05/16 10:12	1
trans-1,2-Dichloroethene	ND		1.0		ug/Kg			10/05/16 10:12	1
trans-1,3-Dichloropropene	ND		1.0		ug/Kg			10/05/16 10:12	1
Trichloroethene	ND		1.0		ug/Kg			10/05/16 10:12	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-360130/8
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		2.0		ug/Kg			10/05/16 10:12	1
Vinyl chloride	ND		2.0		ug/Kg			10/05/16 10:12	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/Kg			10/05/16 10:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*79 - 123*		*10/05/16 10:12*	*1*
4-Bromofluorobenzene (Surr)	*102*		*79 - 120*		*10/05/16 10:12*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 120*		*10/05/16 10:12*	*1*

Lab Sample ID: LCS 440-360130/9
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	50.0	47.0		ug/Kg		94	60 - 135
1,1,1,2-Tetrachloroethane	50.0	55.4		ug/Kg		111	70 - 130
1,1,1-Trichloroethane	50.0	46.7		ug/Kg		93	65 - 135
1,1,2,2-Tetrachloroethane	50.0	50.4		ug/Kg		101	55 - 140
1,1,2-Trichloroethane	50.0	59.7		ug/Kg		119	65 - 135
1,1-Dichloroethane	50.0	53.6		ug/Kg		107	70 - 130
1,1-Dichloroethene	50.0	45.6		ug/Kg		91	70 - 125
1,1-Dichloropropene	50.0	47.9		ug/Kg		96	70 - 130
1,2,3-Trichlorobenzene	50.0	56.8		ug/Kg		114	60 - 130
1,2,4-Trichlorobenzene	50.0	55.6		ug/Kg		111	70 - 135
1,2,4-Trimethylbenzene	50.0	51.5		ug/Kg		103	70 - 125
1,2-Dibromo-3-Chloropropane	50.0	43.6		ug/Kg		87	50 - 135
1,2-Dichlorobenzene	50.0	53.7		ug/Kg		107	75 - 120
1,2-Dichloroethane	50.0	58.7		ug/Kg		117	60 - 140
1,2-Dichloropropane	50.0	59.3		ug/Kg		119	70 - 130
1,3,5-Trimethylbenzene	50.0	51.1		ug/Kg		102	70 - 125
1,3-Dichlorobenzene	50.0	53.1		ug/Kg		106	75 - 125
1,3-Dichloropropane	50.0	55.9		ug/Kg		112	70 - 125
1,4-Dichlorobenzene	50.0	51.8		ug/Kg		104	75 - 120
2,2-Dichloropropane	50.0	50.5		ug/Kg		101	60 - 145
2-Chlorotoluene	50.0	54.6		ug/Kg		109	70 - 125
4-Chlorotoluene	50.0	55.7		ug/Kg		111	75 - 125
p-Isopropyltoluene	50.0	51.6		ug/Kg		103	75 - 125
Benzene	50.0	53.0		ug/Kg		106	65 - 120
Bromobenzene	50.0	54.5		ug/Kg		109	75 - 120
Bromoform	50.0	49.6		ug/Kg		99	55 - 135
Bromomethane	50.0	47.1		ug/Kg		94	60 - 145
Carbon tetrachloride	50.0	45.9		ug/Kg		92	65 - 140
Chlorobenzene	50.0	50.4		ug/Kg		101	75 - 120
Bromochloromethane	50.0	55.0		ug/Kg		110	70 - 135
Chloroethane	50.0	49.6		ug/Kg		99	60 - 140
Chloroform	50.0	54.9		ug/Kg		110	70 - 130
Chloromethane	50.0	36.2		ug/Kg		72	45 - 145
cis-1,2-Dichloroethene	50.0	56.4		ug/Kg		113	70 - 125

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-360130/9
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	50.0	62.0		ug/Kg		124	75 - 125
Dibromochloromethane	50.0	54.0		ug/Kg		108	65 - 140
Dibromomethane	50.0	55.7		ug/Kg		111	70 - 130
Bromodichloromethane	50.0	58.2		ug/Kg		116	70 - 135
Dichlorodifluoromethane	50.0	32.3		ug/Kg		65	35 - 160
Ethylbenzene	50.0	53.4		ug/Kg		107	70 - 125
Hexachlorobutadiene	50.0	49.5		ug/Kg		99	60 - 135
Isopropylbenzene	50.0	53.4		ug/Kg		107	75 - 130
m,p-Xylene	50.0	54.4		ug/Kg		109	70 - 125
Methylene Chloride	50.0	53.8		ug/Kg		108	55 - 135
Naphthalene	50.0	54.1		ug/Kg		108	55 - 135
n-Butylbenzene	50.0	51.5		ug/Kg		103	70 - 130
N-Propylbenzene	50.0	52.6		ug/Kg		105	70 - 130
o-Xylene	50.0	55.3		ug/Kg		111	70 - 125
sec-Butylbenzene	50.0	49.5		ug/Kg		99	70 - 125
Styrene	50.0	51.9		ug/Kg		104	75 - 130
tert-Butylbenzene	50.0	48.5		ug/Kg		97	70 - 125
Tetrachloroethene	50.0	46.1		ug/Kg		92	70 - 125
Toluene	50.0	53.9		ug/Kg		108	70 - 125
trans-1,2-Dichloroethene	50.0	53.8		ug/Kg		108	70 - 125
trans-1,3-Dichloropropene	50.0	56.0		ug/Kg		112	70 - 135
Trichloroethene	50.0	51.5		ug/Kg		103	70 - 125
Trichlorofluoromethane	50.0	42.0		ug/Kg		84	60 - 145
Vinyl chloride	50.0	40.6		ug/Kg		81	55 - 135
1,2-Dibromoethane (EDB)	50.0	56.7		ug/Kg		113	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*103*		*79 - 123*
4-Bromofluorobenzene (Surr)	*102*		*79 - 120*
Dibromofluoromethane (Surr)	*107*		*60 - 120*

Lab Sample ID: 440-160075-29 MS
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: LT-8-10.5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	ND		50.0	52.0		ug/Kg		104	50 - 150
1,1,1,2-Tetrachloroethane	ND		50.0	57.7		ug/Kg		115	65 - 145
1,1,1-Trichloroethane	ND		50.0	53.1		ug/Kg		106	65 - 145
1,1,2,2-Tetrachloroethane	ND		50.0	47.1		ug/Kg		94	40 - 160
1,1,2-Trichloroethane	ND		50.0	60.9		ug/Kg		122	65 - 140
1,1-Dichloroethane	ND		50.0	54.1		ug/Kg		108	65 - 135
1,1-Dichloroethene	ND		50.0	51.7		ug/Kg		103	65 - 135
1,1-Dichloropropene	ND		50.0	55.3		ug/Kg		111	65 - 135
1,2,3-Trichlorobenzene	ND		50.0	57.7		ug/Kg		115	45 - 145
1,2,4-Trichlorobenzene	ND		50.0	56.1		ug/Kg		112	50 - 140
1,2,4-Trimethylbenzene	ND		50.0	52.3		ug/Kg		105	65 - 140
1,2-Dibromo-3-Chloropropane	ND		50.0	44.6		ug/Kg		89	40 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-160075-29 MS
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: LT-8-10.5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichlorobenzene	ND		50.0	52.9		ug/Kg		106	70 - 130
1,2-Dichloroethane	ND		50.0	57.6		ug/Kg		115	60 - 150
1,2-Dichloropropane	ND		50.0	58.7		ug/Kg		117	65 - 130
1,3,5-Trimethylbenzene	ND		50.0	52.3		ug/Kg		105	65 - 135
1,3-Dichlorobenzene	ND		50.0	53.5		ug/Kg		107	70 - 130
1,3-Dichloropropane	ND		50.0	58.3		ug/Kg		117	65 - 140
1,4-Dichlorobenzene	ND		50.0	51.2		ug/Kg		102	70 - 130
2,2-Dichloropropane	ND		50.0	57.6		ug/Kg		115	65 - 150
2-Chlorotoluene	ND		50.0	53.6		ug/Kg		107	60 - 135
4-Chlorotoluene	ND		50.0	54.7		ug/Kg		109	65 - 135
p-Isopropyltoluene	ND		50.0	54.6		ug/Kg		109	60 - 140
Benzene	ND		50.0	54.1		ug/Kg		108	65 - 130
Bromobenzene	ND		50.0	52.8		ug/Kg		106	65 - 140
Bromoform	ND		50.0	52.6		ug/Kg		105	50 - 145
Bromomethane	ND		50.0	53.3		ug/Kg		107	60 - 155
Carbon tetrachloride	ND		50.0	53.9		ug/Kg		108	60 - 145
Chlorobenzene	ND		50.0	51.1		ug/Kg		102	70 - 130
Bromochloromethane	ND		50.0	55.8		ug/Kg		112	65 - 145
Chloroethane	ND		50.0	50.0		ug/Kg		100	60 - 150
Chloroform	ND		50.0	55.2		ug/Kg		110	65 - 135
Chloromethane	ND		50.0	43.6		ug/Kg		87	40 - 145
cis-1,2-Dichloroethene	ND		50.0	56.4		ug/Kg		113	65 - 135
cis-1,3-Dichloropropene	ND		50.0	61.8		ug/Kg		124	70 - 135
Dibromochloromethane	ND		50.0	54.4		ug/Kg		109	60 - 145
Dibromomethane	ND		50.0	55.7		ug/Kg		111	65 - 140
Bromodichloromethane	ND		50.0	56.9		ug/Kg		114	65 - 145
Dichlorodifluoromethane	ND		50.0	46.5		ug/Kg		93	30 - 160
Ethylbenzene	ND		50.0	56.2		ug/Kg		112	70 - 135
Hexachlorobutadiene	ND		50.0	54.6		ug/Kg		109	50 - 145
Isopropylbenzene	ND		50.0	58.9		ug/Kg		118	70 - 145
m,p-Xylene	ND		50.0	59.9		ug/Kg		120	70 - 130
Methylene Chloride	ND		50.0	57.7		ug/Kg		115	55 - 145
Naphthalene	ND		50.0	55.6		ug/Kg		111	40 - 150
n-Butylbenzene	ND		50.0	57.8		ug/Kg		116	55 - 145
N-Propylbenzene	ND		50.0	55.2		ug/Kg		110	65 - 140
o-Xylene	ND		50.0	58.0		ug/Kg		116	65 - 130
sec-Butylbenzene	ND		50.0	53.6		ug/Kg		107	60 - 135
Styrene	ND		50.0	54.0		ug/Kg		108	70 - 140
tert-Butylbenzene	ND		50.0	50.9		ug/Kg		102	60 - 140
Tetrachloroethene	ND		50.0	53.2		ug/Kg		106	65 - 135
Toluene	ND		50.0	55.9		ug/Kg		112	70 - 130
trans-1,2-Dichloroethene	ND		50.0	58.0		ug/Kg		116	70 - 135
trans-1,3-Dichloropropene	ND		50.0	56.6		ug/Kg		113	60 - 145
Trichloroethene	ND		50.0	60.9		ug/Kg		122	65 - 140
Trichlorofluoromethane	ND		50.0	51.0		ug/Kg		102	55 - 155
Vinyl chloride	ND		50.0	51.7		ug/Kg		103	55 - 140
1,2-Dibromoethane (EDB)	ND		50.0	58.9		ug/Kg		118	65 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-160075-29 MS
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: LT-8-10.5
Prep Type: Total/NA

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*103*		*79 - 123*
4-Bromofluorobenzene (Surr)	*95*		*79 - 120*
Dibromofluoromethane (Surr)	*103*		*60 - 120*

Lab Sample ID: 440-160075-29 MSD
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: LT-8-10.5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		49.7	47.2		ug/Kg		95	50 - 150	10	30
1,1,1,2-Tetrachloroethane	ND		49.7	56.4		ug/Kg		113	65 - 145	2	20
1,1,1-Trichloroethane	ND		49.7	55.0		ug/Kg		111	65 - 145	4	20
1,1,2,2-Tetrachloroethane	ND		49.7	43.0		ug/Kg		87	40 - 160	9	30
1,1,2-Trichloroethane	ND		49.7	57.4		ug/Kg		115	65 - 140	6	30
1,1-Dichloroethane	ND		49.7	55.7		ug/Kg		112	65 - 135	3	25
1,1-Dichloroethene	ND		49.7	53.6		ug/Kg		108	65 - 135	4	25
1,1-Dichloropropene	ND		49.7	56.8		ug/Kg		114	65 - 135	3	20
1,2,3-Trichlorobenzene	ND		49.7	56.3		ug/Kg		113	45 - 145	2	30
1,2,4-Trichlorobenzene	ND		49.7	56.0		ug/Kg		113	50 - 140	0	30
1,2,4-Trimethylbenzene	ND		49.7	54.3		ug/Kg		109	65 - 140	4	25
1,2-Dibromo-3-Chloropropane	ND		49.7	43.0		ug/Kg		86	40 - 150	4	30
1,2-Dichlorobenzene	ND		49.7	53.8		ug/Kg		108	70 - 130	2	25
1,2-Dichloroethane	ND		49.7	54.4		ug/Kg		109	60 - 150	6	25
1,2-Dichloropropane	ND		49.7	57.6		ug/Kg		116	65 - 130	2	20
1,3,5-Trimethylbenzene	ND		49.7	53.9		ug/Kg		109	65 - 135	3	25
1,3-Dichlorobenzene	ND		49.7	54.0		ug/Kg		109	70 - 130	1	25
1,3-Dichloropropane	ND		49.7	56.4		ug/Kg		114	65 - 140	3	25
1,4-Dichlorobenzene	ND		49.7	51.9		ug/Kg		104	70 - 130	1	25
2,2-Dichloropropane	ND		49.7	57.6		ug/Kg		116	65 - 150	0	25
2-Chlorotoluene	ND		49.7	55.7		ug/Kg		112	60 - 135	4	25
4-Chlorotoluene	ND		49.7	57.3		ug/Kg		115	65 - 135	5	25
p-Isopropyltoluene	ND		49.7	58.0		ug/Kg		117	60 - 140	6	25
Benzene	ND		49.7	55.3		ug/Kg		111	65 - 130	2	20
Bromobenzene	ND		49.7	53.0		ug/Kg		107	65 - 140	0	25
Bromoform	ND		49.7	49.3		ug/Kg		99	50 - 145	6	30
Bromomethane	ND		49.7	50.7		ug/Kg		102	60 - 155	5	25
Carbon tetrachloride	ND		49.7	56.5		ug/Kg		114	60 - 145	5	25
Chlorobenzene	ND		49.7	51.5		ug/Kg		104	70 - 130	1	25
Bromochloromethane	ND		49.7	52.8		ug/Kg		106	65 - 145	6	25
Chloroethane	ND		49.7	54.4		ug/Kg		109	60 - 150	9	25
Chloroform	ND		49.7	57.2		ug/Kg		115	65 - 135	4	20
Chloromethane	ND		49.7	43.7		ug/Kg		88	40 - 145	0	25
cis-1,2-Dichloroethene	ND		49.7	57.7		ug/Kg		116	65 - 135	2	25
cis-1,3-Dichloropropene	ND		49.7	61.1		ug/Kg		123	70 - 135	1	25
Dibromochloromethane	ND		49.7	52.9		ug/Kg		106	60 - 145	3	25
Dibromomethane	ND		49.7	54.1		ug/Kg		109	65 - 140	3	25
Bromodichloromethane	ND		49.7	57.0		ug/Kg		115	65 - 145	0	20
Dichlorodifluoromethane	ND		49.7	48.8		ug/Kg		98	30 - 160	5	35

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-160075-29 MSD
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: LT-8-10.5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ethylbenzene	ND		49.7	57.3		ug/Kg		115	70 - 135	2	25
Hexachlorobutadiene	ND		49.7	53.7		ug/Kg		108	50 - 145	2	35
Isopropylbenzene	ND		49.7	59.6		ug/Kg		120	70 - 145	1	25
m,p-Xylene	ND		49.7	60.2		ug/Kg		121	70 - 130	1	25
Methylene Chloride	ND		49.7	57.9		ug/Kg		116	55 - 145	0	25
Naphthalene	ND		49.7	53.9		ug/Kg		108	40 - 150	3	40
n-Butylbenzene	ND		49.7	59.8		ug/Kg		120	55 - 145	3	30
N-Propylbenzene	ND		49.7	58.6		ug/Kg		118	65 - 140	6	25
o-Xylene	ND		49.7	59.5		ug/Kg		120	65 - 130	3	25
sec-Butylbenzene	ND		49.7	56.1		ug/Kg		113	60 - 135	4	25
Styrene	ND		49.7	53.8		ug/Kg		108	70 - 140	0	25
tert-Butylbenzene	ND		49.7	53.9		ug/Kg		109	60 - 140	6	25
Tetrachloroethene	ND		49.7	53.4		ug/Kg		107	65 - 135	0	25
Toluene	ND		49.7	57.4		ug/Kg		116	70 - 130	3	20
trans-1,2-Dichloroethene	ND		49.7	60.2		ug/Kg		121	70 - 135	4	25
trans-1,3-Dichloropropene	ND		49.7	55.0		ug/Kg		111	60 - 145	3	25
Trichloroethene	ND		49.7	64.0		ug/Kg		129	65 - 140	5	25
Trichlorofluoromethane	ND		49.7	53.9		ug/Kg		108	55 - 155	6	25
Vinyl chloride	ND		49.7	52.9		ug/Kg		106	55 - 140	2	30
1,2-Dibromoethane (EDB)	ND		49.7	55.8		ug/Kg		112	65 - 140	5	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*104*		*79 - 123*
4-Bromofluorobenzene (Surr)	*98*		*79 - 120*
Dibromofluoromethane (Surr)	*100*		*60 - 120*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-359695/1-A
Matrix: Solid
Analysis Batch: 359964

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 359695

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
1,4-Dichlorobenzene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2,4,5-Trichlorophenol	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2,4,6-Trichlorophenol	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2,4-Dichlorophenol	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2,4-Dimethylphenol	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2,4-Dinitrophenol	ND		660		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2,4-Dinitrotoluene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2,6-Dinitrotoluene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2-Chloronaphthalene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2-Chlorophenol	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2-Methylnaphthalene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2-Methylphenol	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2-Nitroaniline	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
2-Nitrophenol	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-359695/1-A
Matrix: Solid
Analysis Batch: 359964

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 359695

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	ND		830		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
3-Nitroaniline	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
4,6-Dinitro-2-methylphenol	ND		420		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
4-Bromophenyl phenyl ether	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
4-Chloro-3-methylphenol	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
4-Chloroaniline	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
4-Chlorophenyl phenyl ether	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
3-Methylphenol + 4-Methylphenol	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
4-Nitroaniline	ND		830		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
4-Nitrophenol	ND		830		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Acenaphthene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Acenaphthylene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Aniline	ND		420		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Anthracene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Benzidine	ND		1300		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Benzo[a]anthracene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Benzo[a]pyrene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Benzo[b]fluoranthene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Benzo[g,h,i]perylene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Benzo[k]fluoranthene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Benzoic acid	ND		830		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Benzyl alcohol	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Bis(2-chloroethoxy)methane	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Bis(2-chloroethyl)ether	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Bis(2-ethylhexyl) phthalate	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Butyl benzyl phthalate	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Chrysene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Dibenz(a,h)anthracene	ND		420		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Dibenzofuran	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Diethyl phthalate	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Dimethyl phthalate	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Di-n-butyl phthalate	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Di-n-octyl phthalate	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Fluoranthene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Fluorene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Hexachlorobenzene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Hexachlorobutadiene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Hexachlorocyclopentadiene	ND		830		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Hexachloroethane	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Indeno[1,2,3-cd]pyrene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Isophorone	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Naphthalene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Nitrobenzene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
N-Nitrosodi-n-propylamine	ND		250		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
N-Nitrosodiphenylamine	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Pentachlorophenol	ND		830		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Phenanthrene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
Phenol	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-359695/1-A
Matrix: Solid
Analysis Batch: 359964

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 359695

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
bis (2-chloroisopropyl) ether	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1
N-Nitrosodimethylamine	ND		330		ug/Kg		10/03/16 10:06	10/04/16 12:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*42 - 113*	*10/03/16 10:06*	*10/04/16 12:21*	*1*
2-Fluorophenol (Surr)	*81*		*18 - 138*	*10/03/16 10:06*	*10/04/16 12:21*	*1*
2,4,6-Tribromophenol (Surr)	*70*		*10 - 147*	*10/03/16 10:06*	*10/04/16 12:21*	*1*
Nitrobenzene-d5 (Surr)	*69*		*39 - 104*	*10/03/16 10:06*	*10/04/16 12:21*	*1*
Terphenyl-d14 (Surr)	*93*		*43 - 125*	*10/03/16 10:06*	*10/04/16 12:21*	*1*
Phenol-d6 (Surr)	*78*		*37 - 125*	*10/03/16 10:06*	*10/04/16 12:21*	*1*

Lab Sample ID: LCS 440-359695/2-A
Matrix: Solid
Analysis Batch: 359964

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 359695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	3330	2170		ug/Kg		65	37 - 106
1,4-Dichlorobenzene	3330	2250		ug/Kg		68	37 - 108
2,4,5-Trichlorophenol	3330	2780		ug/Kg		83	51 - 125
2,4,6-Trichlorophenol	3330	2880		ug/Kg		86	48 - 126
2,4-Dichlorophenol	3330	3150		ug/Kg		95	49 - 127
2,4-Dimethylphenol	3330	2800		ug/Kg		84	41 - 122
2,4-Dinitrophenol	6670	5750		ug/Kg		86	34 - 124
2,4-Dinitrotoluene	3330	2370		ug/Kg		71	46 - 126
2,6-Dinitrotoluene	3330	2540		ug/Kg		76	48 - 126
2-Chloronaphthalene	3330	2720		ug/Kg		82	43 - 120
2-Chlorophenol	3330	2970		ug/Kg		89	43 - 125
2-Methylnaphthalene	3330	2710		ug/Kg		81	44 - 119
2-Methylphenol	3330	3390		ug/Kg		102	42 - 130
2-Nitroaniline	3330	2730		ug/Kg		82	40 - 131
2-Nitrophenol	3330	2530		ug/Kg		76	44 - 124
3,3'-Dichlorobenzidine	3330	2350		ug/Kg		70	28 - 114
3-Nitroaniline	3330	2280		ug/Kg		69	39 - 129
4,6-Dinitro-2-methylphenol	6670	6390		ug/Kg		96	38 - 137
4-Bromophenyl phenyl ether	3330	2710		ug/Kg		81	52 - 126
4-Chloro-3-methylphenol	3330	2720		ug/Kg		82	45 - 128
4-Chloroaniline	3330	1970		ug/Kg		59	25 - 130
4-Chlorophenyl phenyl ether	3330	2780		ug/Kg		83	46 - 121
3-Methylphenol + 4-Methylphenol	3330	3370		ug/Kg		101	42 - 138
4-Nitroaniline	3330	2280		ug/Kg		68	40 - 126
4-Nitrophenol	6670	5270		ug/Kg		79	35 - 130
Acenaphthene	3330	2630		ug/Kg		79	40 - 118
Acenaphthylene	3330	2530		ug/Kg		76	47 - 125
Aniline	3330	2060		ug/Kg		62	23 - 105
Anthracene	3330	2740		ug/Kg		82	51 - 122
Benzidine	3330	670	J	ug/Kg		20	5 - 61
Benzo[a]anthracene	3330	2940		ug/Kg		88	50 - 123

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-359695/2-A
Matrix: Solid
Analysis Batch: 359964

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 359695

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	3330	2860		ug/Kg		86	52 - 125
Benzo[b]fluoranthene	3330	2700		ug/Kg		81	52 - 125
Benzo[g,h,i]perylene	3330	2560		ug/Kg		77	38 - 149
Benzo[k]fluoranthene	3330	2850		ug/Kg		86	50 - 132
Benzoic acid	3330	3160		ug/Kg		95	28 - 120
Benzyl alcohol	3330	2950		ug/Kg		89	20 - 133
Bis(2-chloroethoxy)methane	3330	2710		ug/Kg		81	39 - 119
Bis(2-chloroethyl)ether	3330	2590		ug/Kg		78	32 - 114
Bis(2-ethylhexyl) phthalate	3330	2920		ug/Kg		88	49 - 127
Butyl benzyl phthalate	3330	2810		ug/Kg		84	48 - 130
Chrysene	3330	2800		ug/Kg		84	51 - 127
Dibenz(a,h)anthracene	3330	3030		ug/Kg		91	45 - 136
Dibenzofuran	3330	2420		ug/Kg		73	47 - 120
Diethyl phthalate	3330	2620		ug/Kg		79	46 - 122
Dimethyl phthalate	3330	2650		ug/Kg		80	48 - 122
Di-n-butyl phthalate	3330	2810		ug/Kg		84	43 - 128
Di-n-octyl phthalate	3330	2560		ug/Kg		77	47 - 133
Fluoranthene	3330	2510		ug/Kg		75	44 - 123
Fluorene	3330	2690		ug/Kg		81	48 - 123
Hexachlorobenzene	3330	2570		ug/Kg		77	52 - 125
Hexachlorobutadiene	3330	2430		ug/Kg		73	40 - 114
Hexachlorocyclopentadiene	3330	1340		ug/Kg		40	17 - 119
Hexachloroethane	3330	2260		ug/Kg		68	34 - 107
Indeno[1,2,3-cd]pyrene	3330	3320		ug/Kg		100	46 - 148
Isophorone	3330	2640		ug/Kg		79	38 - 119
Naphthalene	3330	2580		ug/Kg		77	42 - 115
Nitrobenzene	3330	2520		ug/Kg		76	38 - 116
N-Nitrosodi-n-propylamine	3330	3130		ug/Kg		94	31 - 124
N-Nitrosodiphenylamine	3330	2790		ug/Kg		84	48 - 130
Pentachlorophenol	6670	4850		ug/Kg		73	40 - 121
Phenanthrene	3330	2750		ug/Kg		82	51 - 122
Phenol	3330	3440		ug/Kg		103	42 - 133
Pyrene	3330	3090		ug/Kg		93	54 - 127
bis (2-chloroisopropyl) ether	3330	3260		ug/Kg		98	25 - 116
N-Nitrosodimethylamine	3330	1960		ug/Kg		59	28 - 107

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*42 - 113*
2-Fluorophenol (Surr)	*84*		*18 - 138*
2,4,6-Tribromophenol (Surr)	*79*		*10 - 147*
Nitrobenzene-d5 (Surr)	*70*		*39 - 104*
Terphenyl-d14 (Surr)	*87*		*43 - 125*
Phenol-d6 (Surr)	*93*		*37 - 125*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 440-359914/5
Matrix: Solid
Analysis Batch: 359914

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			10/04/16 10:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*65 - 140*		*10/04/16 10:39*	*1*

Lab Sample ID: LCS 440-359914/3
Matrix: Solid
Analysis Batch: 359914

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			1600	1480		ug/Kg		92	70 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*70*		*65 - 140*

Lab Sample ID: LCSD 440-359914/4
Matrix: Solid
Analysis Batch: 359914

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			1600	1470		ug/Kg		92	70 - 135	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*65 - 140*

Lab Sample ID: 440-159714-A-1 MS
Matrix: Solid
Analysis Batch: 359914

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)	ND		1600	1220		ug/Kg		76	60 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*65 - 140*

Lab Sample ID: 440-159714-A-1 MSD
Matrix: Solid
Analysis Batch: 359914

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	ND		1570	1200		ug/Kg		77	60 - 140	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*85*		*65 - 140*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-359694/1-A
Matrix: Solid
Analysis Batch: 359776

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 359694

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/03/16 10:02	10/03/16 16:51	1
C23-C40	ND		5.0		mg/Kg		10/03/16 10:02	10/03/16 16:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*72*		*40 - 140*	*10/03/16 10:02*	*10/03/16 16:51*	*1*

Lab Sample ID: LCS 440-359694/2-A
Matrix: Solid
Analysis Batch: 359776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 359694

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28			66.7	47.7		mg/Kg		72	45 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*71*		*40 - 140*

Lab Sample ID: MB 440-360059/1-A
Matrix: Solid
Analysis Batch: 360303

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360059

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 12:56	1
C23-C40	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 12:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*71*		*40 - 140*	*10/04/16 16:54*	*10/05/16 12:56*	*1*

Lab Sample ID: LCS 440-360059/2-A
Matrix: Solid
Analysis Batch: 360303

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360059

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28			66.7	58.2		mg/Kg		87	45 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*79*		*40 - 140*

Lab Sample ID: 720-74823-D-5-B MS
Matrix: Solid
Analysis Batch: 360322

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 360059

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28	7.3	F1	116	38.9	F1	mg/Kg		27	40 - 120		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
n-Octacosane	*36*	*X*	*40 - 140*

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 720-74823-D-5-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 360322 — **Prep Batch: 360059**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	7.3	F1	66.5	40.8		mg/Kg		50	40 - 120	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*69*		*40 - 140*

Lab Sample ID: MB 440-360407/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 360532 — **Prep Batch: 360407**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/05/16 20:14	10/06/16 10:34	1
C23-C40	ND		5.0		mg/Kg		10/05/16 20:14	10/06/16 10:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*86*		*40 - 140*	*10/05/16 20:14*	*10/06/16 10:34*	*1*

Lab Sample ID: LCS 440-360407/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 360532 — **Prep Batch: 360407**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28			66.7	58.6		mg/Kg		88	45 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*86*		*40 - 140*

Lab Sample ID: 440-160075-29 MS — **Client Sample ID: LT-8-10.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 360534 — **Prep Batch: 360407**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28	ND		66.5	47.3		mg/Kg		71	40 - 120		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
n-Octacosane	*90*		*40 - 140*

Lab Sample ID: 440-160075-29 MSD — **Client Sample ID: LT-8-10.5**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 360534 — **Prep Batch: 360407**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	ND		66.5	45.0		mg/Kg		68	40 - 120	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*85*		*40 - 140*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 440-360624/1-A
Matrix: Solid
Analysis Batch: 360865

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360624

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1221	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1232	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1242	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1248	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1254	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1260	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*78*		*45 - 120*	*10/06/16 15:31*	*10/07/16 15:22*	*1*

Lab Sample ID: LCS 440-360624/5-A
Matrix: Solid
Analysis Batch: 360865

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360624

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016			267	217		ug/Kg		81	65 - 115		
Aroclor 1260			267	224		ug/Kg		84	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*76*		*45 - 120*

Lab Sample ID: 440-160659-B-2-B MS
Matrix: Solid
Analysis Batch: 360865

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 360624

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016	ND		266	224		ug/Kg		84	50 - 120		
Aroclor 1260	ND		266	227		ug/Kg		85	50 - 125		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*73*		*45 - 120*

Lab Sample ID: 440-160659-B-2-C MSD
Matrix: Solid
Analysis Batch: 360865

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 360624

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		266	218		ug/Kg		82	50 - 120	3	30
Aroclor 1260	ND		266	228		ug/Kg		86	50 - 125	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*73*		*45 - 120*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 440-361558/1-A
Matrix: Solid
Analysis Batch: 361794

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 361558

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		50		ug/Kg		10/11/16 15:58	10/12/16 15:20	1
Aroclor 1221	ND		50		ug/Kg		10/11/16 15:58	10/12/16 15:20	1
Aroclor 1232	ND		50		ug/Kg		10/11/16 15:58	10/12/16 15:20	1
Aroclor 1242	ND		50		ug/Kg		10/11/16 15:58	10/12/16 15:20	1
Aroclor 1248	ND		50		ug/Kg		10/11/16 15:58	10/12/16 15:20	1
Aroclor 1254	ND		50		ug/Kg		10/11/16 15:58	10/12/16 15:20	1
Aroclor 1260	ND		50		ug/Kg		10/11/16 15:58	10/12/16 15:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*109*		*45 - 120*	*10/11/16 15:58*	*10/12/16 15:20*	*1*

Lab Sample ID: LCS 440-361558/2-A
Matrix: Solid
Analysis Batch: 361794

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 361558

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016			266	269		ug/Kg		101	65 - 115		
Aroclor 1260			266	250		ug/Kg		94	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*103*		*45 - 120*

Lab Sample ID: 440-160075-25 MS
Matrix: Solid
Analysis Batch: 361794

Client Sample ID: LT-9-4
Prep Type: Total/NA
Prep Batch: 361558

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016	ND	H	266	152		ug/Kg		57	50 - 120		
Aroclor 1260	ND	H	266	149		ug/Kg		56	50 - 125		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*50*		*45 - 120*

Lab Sample ID: 440-160075-25 MSD
Matrix: Solid
Analysis Batch: 361794

Client Sample ID: LT-9-4
Prep Type: Total/NA
Prep Batch: 361558

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND	H	266	157		ug/Kg		59	50 - 120	4	30
Aroclor 1260	ND	H	266	161		ug/Kg		60	50 - 125	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*55*		*45 - 120*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-359662/1-A ^5
Matrix: Solid
Analysis Batch: 360105

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 359662

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Arsenic	ND		3.0		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Barium	ND		1.5		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Beryllium	ND		0.50		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Cadmium	ND		0.50		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Chromium	ND		0.99		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Cobalt	ND		0.99		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Copper	ND		2.0		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Lead	ND		2.0		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Molybdenum	ND		2.0		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Nickel	ND		2.0		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Selenium	ND		3.0		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Thallium	ND		9.9		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Vanadium	ND		0.99		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Zinc	ND		5.0		mg/Kg		10/03/16 08:18	10/04/16 16:48	5
Silver	ND		1.5		mg/Kg		10/03/16 08:18	10/04/16 16:48	5

Lab Sample ID: LCS 440-359662/2-A ^5
Matrix: Solid
Analysis Batch: 360105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 359662

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			49.3	47.7		mg/Kg		97	80 - 120		
Arsenic			49.3	44.0		mg/Kg		89	80 - 120		
Barium			49.3	45.3		mg/Kg		92	80 - 120		
Beryllium			49.3	43.3		mg/Kg		88	80 - 120		
Cadmium			49.3	43.2		mg/Kg		88	80 - 120		
Chromium			49.3	48.1		mg/Kg		98	80 - 120		
Cobalt			49.3	48.3		mg/Kg		98	80 - 120		
Copper			49.3	44.7		mg/Kg		91	80 - 120		
Lead			49.3	45.2		mg/Kg		92	80 - 120		
Molybdenum			49.3	48.6		mg/Kg		99	80 - 120		
Nickel			49.3	47.6		mg/Kg		97	80 - 120		
Selenium			49.3	39.7		mg/Kg		81	80 - 120		
Thallium			49.3	44.5		mg/Kg		90	80 - 120		
Vanadium			49.3	45.1		mg/Kg		92	80 - 120		
Zinc			49.3	42.0		mg/Kg		85	80 - 120		
Silver			24.6	22.1		mg/Kg		90	80 - 120		

Lab Sample ID: 440-160075-25 MS
Matrix: Solid
Analysis Batch: 360105

Client Sample ID: LT-9-4
Prep Type: Total/NA
Prep Batch: 359662

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony	ND	F1	49.8	22.0	F1	mg/Kg		44	75 - 125		
Arsenic	7.3		49.8	49.5		mg/Kg		85	75 - 125		
Barium	100		49.8	146		mg/Kg		90	75 - 125		
Beryllium	ND		49.8	42.9		mg/Kg		86	75 - 125		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-160075-25 MS
Matrix: Solid
Analysis Batch: 360105

Client Sample ID: LT-9-4
Prep Type: Total/NA
Prep Batch: 359662

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		49.8	42.8		mg/Kg		85	75 - 125
Chromium	18		49.8	64.4		mg/Kg		94	75 - 125
Cobalt	4.2		49.8	47.9		mg/Kg		88	75 - 125
Copper	60		49.8	114		mg/Kg		108	75 - 125
Lead	140		49.8	207		mg/Kg		125	75 - 125
Molybdenum	ND		49.8	44.0		mg/Kg		88	75 - 125
Nickel	14		49.8	58.3		mg/Kg		88	75 - 125
Selenium	ND		49.8	38.6		mg/Kg		78	75 - 125
Thallium	ND		49.8	39.9		mg/Kg		80	75 - 125
Vanadium	27		49.8	80.8		mg/Kg		108	75 - 125
Zinc	76		49.8	117		mg/Kg		81	75 - 125
Silver	ND		24.9	21.9		mg/Kg		88	75 - 125

Lab Sample ID: 440-160075-25 MSD
Matrix: Solid
Analysis Batch: 360105

Client Sample ID: LT-9-4
Prep Type: Total/NA
Prep Batch: 359662

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	F1	49.8	22.4	F1	mg/Kg		45	75 - 125	2	20
Arsenic	7.3		49.8	50.7		mg/Kg		87	75 - 125	3	20
Barium	100		49.8	154		mg/Kg		106	75 - 125	5	20
Beryllium	ND		49.8	43.8		mg/Kg		87	75 - 125	2	20
Cadmium	ND		49.8	43.8		mg/Kg		87	75 - 125	2	20
Chromium	18		49.8	66.1		mg/Kg		97	75 - 125	3	20
Cobalt	4.2		49.8	48.9		mg/Kg		90	75 - 125	2	20
Copper	60		49.8	119		mg/Kg		118	75 - 125	4	20
Lead	140		49.8	199		mg/Kg		110	75 - 125	4	20
Molybdenum	ND		49.8	44.9		mg/Kg		90	75 - 125	2	20
Nickel	14		49.8	59.7		mg/Kg		91	75 - 125	2	20
Selenium	ND		49.8	40.1		mg/Kg		81	75 - 125	4	20
Thallium	ND		49.8	40.1		mg/Kg		81	75 - 125	1	20
Vanadium	27		49.8	84.1		mg/Kg		115	75 - 125	4	20
Zinc	76		49.8	133		mg/Kg		114	75 - 125	13	20
Silver	ND		24.9	22.5		mg/Kg		91	75 - 125	3	20

Lab Sample ID: MB 440-360068/1-A ^5
Matrix: Solid
Analysis Batch: 360465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360068

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Arsenic	ND		3.0		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Barium	ND		1.5		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Beryllium	ND		0.50		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Cadmium	ND		0.50		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Chromium	ND		0.99		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Cobalt	ND		0.99		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Copper	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Lead	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 21:49	5

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 440-360068/1-A ^5
Matrix: Solid
Analysis Batch: 360465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360068

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Nickel	ND		2.0		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Selenium	ND		3.0		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Thallium	ND		9.9		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Vanadium	ND		0.99		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Zinc	ND		5.0		mg/Kg		10/04/16 17:44	10/05/16 21:49	5
Silver	ND		1.5		mg/Kg		10/04/16 17:44	10/05/16 21:49	5

Lab Sample ID: LCS 440-360068/2-A ^5
Matrix: Solid
Analysis Batch: 360465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360068

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			50.0	49.2		mg/Kg		98	80 - 120		
Arsenic			50.0	43.8		mg/Kg		88	80 - 120		
Barium			50.0	48.7		mg/Kg		97	80 - 120		
Beryllium			50.0	44.8		mg/Kg		90	80 - 120		
Cadmium			50.0	46.2		mg/Kg		92	80 - 120		
Chromium			50.0	49.2		mg/Kg		98	80 - 120		
Cobalt			50.0	49.4		mg/Kg		99	80 - 120		
Copper			50.0	47.9		mg/Kg		96	80 - 120		
Lead			50.0	48.0		mg/Kg		96	80 - 120		
Molybdenum			50.0	48.7		mg/Kg		97	80 - 120		
Nickel			50.0	48.5		mg/Kg		97	80 - 120		
Selenium			50.0	40.3		mg/Kg		81	80 - 120		
Thallium			50.0	46.8		mg/Kg		94	80 - 120		
Vanadium			50.0	48.0		mg/Kg		96	80 - 120		
Zinc			50.0	44.9		mg/Kg		90	80 - 120		
Silver			25.0	23.7		mg/Kg		95	80 - 120		

Lab Sample ID: 440-160075-7 MS
Matrix: Solid
Analysis Batch: 360465

Client Sample ID: LT-21-6
Prep Type: Total/NA
Prep Batch: 360068

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony	ND	F1	49.8	31.2	F1	mg/Kg		63	75 - 125		
Arsenic	ND		49.8	45.4		mg/Kg		86	75 - 125		
Barium	35		49.8	81.9		mg/Kg		95	75 - 125		
Beryllium	ND		49.8	42.8		mg/Kg		86	75 - 125		
Cadmium	ND		49.8	40.3		mg/Kg		81	75 - 125		
Chromium	12		49.8	59.1		mg/Kg		95	75 - 125		
Cobalt	2.7		49.8	45.8		mg/Kg		87	75 - 125		
Copper	8.4		49.8	52.8		mg/Kg		89	75 - 125		
Lead	7.8		49.8	50.4		mg/Kg		86	75 - 125		
Molybdenum	ND		49.8	43.9		mg/Kg		88	75 - 125		
Nickel	7.5		49.8	50.4		mg/Kg		86	75 - 125		
Selenium	ND	F1	49.8	36.8	F1	mg/Kg		74	75 - 125		
Thallium	ND		49.8	44.2		mg/Kg		89	75 - 125		
Vanadium	24		49.8	72.3		mg/Kg		97	75 - 125		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-160075-7 MS
Matrix: Solid
Analysis Batch: 360465

Client Sample ID: LT-21-6
Prep Type: Total/NA
Prep Batch: 360068

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	22		49.8	65.6		mg/Kg		87	75 - 125
Silver	ND		24.9	21.2		mg/Kg		85	75 - 125

Lab Sample ID: 440-160075-7 MSD
Matrix: Solid
Analysis Batch: 360465

Client Sample ID: LT-21-6
Prep Type: Total/NA
Prep Batch: 360068

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	F1	49.5	30.6	F1	mg/Kg		62	75 - 125	2	20
Arsenic	ND		49.5	42.6		mg/Kg		80	75 - 125	6	20
Barium	35		49.5	79.6		mg/Kg		91	75 - 125	3	20
Beryllium	ND		49.5	41.4		mg/Kg		84	75 - 125	3	20
Cadmium	ND		49.5	39.1		mg/Kg		79	75 - 125	3	20
Chromium	12		49.5	56.5		mg/Kg		90	75 - 125	4	20
Cobalt	2.7		49.5	44.5		mg/Kg		85	75 - 125	3	20
Copper	8.4		49.5	51.1		mg/Kg		86	75 - 125	3	20
Lead	7.8		49.5	47.2		mg/Kg		80	75 - 125	7	20
Molybdenum	ND		49.5	42.5		mg/Kg		86	75 - 125	3	20
Nickel	7.5		49.5	49.0		mg/Kg		84	75 - 125	3	20
Selenium	ND	F1	49.5	37.2		mg/Kg		75	75 - 125	1	20
Thallium	ND		49.5	43.1		mg/Kg		87	75 - 125	2	20
Vanadium	24		49.5	68.7		mg/Kg		90	75 - 125	5	20
Zinc	22		49.5	65.8		mg/Kg		88	75 - 125	0	20
Silver	ND		24.8	20.4		mg/Kg		82	75 - 125	4	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-360101/1-A
Matrix: Solid
Analysis Batch: 360423

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360101

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/04/16 21:12	10/05/16 19:39	1

Lab Sample ID: LCS 440-360101/2-A
Matrix: Solid
Analysis Batch: 360423

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360101

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.800	0.820		mg/Kg		102	80 - 120

Lab Sample ID: 440-160220-A-1-C MS
Matrix: Solid
Analysis Batch: 360423

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 360101

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.056		0.800	0.886		mg/Kg		104	70 - 130

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 440-160220-A-1-D MSD
Matrix: Solid
Analysis Batch: 360423

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 360101

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.056		0.800	0.842		mg/Kg		98	70 - 130	5	20

Lab Sample ID: MB 440-360250/1-A
Matrix: Solid
Analysis Batch: 360422

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360250

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/05/16 11:45	10/05/16 18:34	1

Lab Sample ID: LCS 440-360250/2-A
Matrix: Solid
Analysis Batch: 360422

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360250

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.800	0.818		mg/Kg		102	80 - 120		

Lab Sample ID: 440-160075-7 MS
Matrix: Solid
Analysis Batch: 360422

Client Sample ID: LT-21-6
Prep Type: Total/NA
Prep Batch: 360250

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	ND		0.800	0.721		mg/Kg		88	70 - 130		

Lab Sample ID: 440-160075-7 MSD
Matrix: Solid
Analysis Batch: 360422

Client Sample ID: LT-21-6
Prep Type: Total/NA
Prep Batch: 360250

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.800	0.755		mg/Kg		92	70 - 130	5	20

GC/MS VOA

Analysis Batch: 359882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-25	LT-9-4	Total/NA	Solid	8260B	
440-160075-26	LT-9-8	Total/NA	Solid	8260B	
MB 440-359882/4	Method Blank	Total/NA	Solid	8260B	
LCS 440-359882/14	Lab Control Sample	Total/NA	Solid	8260B	
440-160315-A-1 MS	Matrix Spike	Total/NA	Solid	8260B	
440-160315-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	

Analysis Batch: 360130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-29	LT-8-10.5	Total/NA	Solid	8260B	
MB 440-360130/8	Method Blank	Total/NA	Solid	8260B	
LCS 440-360130/9	Lab Control Sample	Total/NA	Solid	8260B	
440-160075-29 MS	LT-8-10.5	Total/NA	Solid	8260B	
440-160075-29 MSD	LT-8-10.5	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 359695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-25	LT-9-4	Total/NA	Solid	3546	
440-160075-26	LT-9-8	Total/NA	Solid	3546	
MB 440-359695/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-359695/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 359964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-25	LT-9-4	Total/NA	Solid	8270C	359695
440-160075-26	LT-9-8	Total/NA	Solid	8270C	359695
MB 440-359695/1-A	Method Blank	Total/NA	Solid	8270C	359695
LCS 440-359695/2-A	Lab Control Sample	Total/NA	Solid	8270C	359695

GC VOA

Analysis Batch: 359914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-25	LT-9-4	Total/NA	Solid	8015B	
440-160075-26	LT-9-8	Total/NA	Solid	8015B	
440-160075-29	LT-8-10.5	Total/NA	Solid	8015B	
440-160075-45	LT-26-(Composite)	Total/NA	Solid	8015B	
MB 440-359914/5	Method Blank	Total/NA	Solid	8015B	
LCS 440-359914/3	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 440-359914/4	Lab Control Sample Dup	Total/NA	Solid	8015B	
440-159714-A-1 MS	Matrix Spike	Total/NA	Solid	8015B	
440-159714-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	

GC Semi VOA

Prep Batch: 359694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-25	LT-9-4	Total/NA	Solid	3546	

GC Semi VOA (Continued)

Prep Batch: 359694 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-26	LT-9-8	Total/NA	Solid	3546	
MB 440-359694/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-359694/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 359775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-25	LT-9-4	Total/NA	Solid	8015B	359694
440-160075-26	LT-9-8	Total/NA	Solid	8015B	359694

Analysis Batch: 359776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-359694/1-A	Method Blank	Total/NA	Solid	8015B	359694
LCS 440-359694/2-A	Lab Control Sample	Total/NA	Solid	8015B	359694

Prep Batch: 360059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-45	LT-26-(Composite)	Total/NA	Solid	3546	
MB 440-360059/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-360059/2-A	Lab Control Sample	Total/NA	Solid	3546	
720-74823-D-5-B MS	Matrix Spike	Total/NA	Solid	3546	
720-74823-D-5-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 360303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-360059/1-A	Method Blank	Total/NA	Solid	8015B	360059
LCS 440-360059/2-A	Lab Control Sample	Total/NA	Solid	8015B	360059

Analysis Batch: 360322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-45	LT-26-(Composite)	Total/NA	Solid	8015B	360059
720-74823-D-5-B MS	Matrix Spike	Total/NA	Solid	8015B	360059
720-74823-D-5-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	360059

Prep Batch: 360407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-29	LT-8-10.5	Total/NA	Solid	3546	
MB 440-360407/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-360407/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-160075-29 MS	LT-8-10.5	Total/NA	Solid	3546	
440-160075-29 MSD	LT-8-10.5	Total/NA	Solid	3546	

Analysis Batch: 360532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-360407/1-A	Method Blank	Total/NA	Solid	8015B	360407
LCS 440-360407/2-A	Lab Control Sample	Total/NA	Solid	8015B	360407

Analysis Batch: 360534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-29	LT-8-10.5	Total/NA	Solid	8015B	360407
440-160075-29 MS	LT-8-10.5	Total/NA	Solid	8015B	360407
440-160075-29 MSD	LT-8-10.5	Total/NA	Solid	8015B	360407

Prep Batch: 360624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-45	LT-26-(Composite)	Total/NA	Solid	3546	
440-160075-47	LT-12-(Composite)	Total/NA	Solid	3546	
MB 440-360624/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-360624/5-A	Lab Control Sample	Total/NA	Solid	3546	
440-160659-B-2-B MS	Matrix Spike	Total/NA	Solid	3546	
440-160659-B-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 360865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-45	LT-26-(Composite)	Total/NA	Solid	8082	360624
440-160075-47	LT-12-(Composite)	Total/NA	Solid	8082	360624
MB 440-360624/1-A	Method Blank	Total/NA	Solid	8082	360624
LCS 440-360624/5-A	Lab Control Sample	Total/NA	Solid	8082	360624
440-160659-B-2-B MS	Matrix Spike	Total/NA	Solid	8082	360624
440-160659-B-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8082	360624

Prep Batch: 361558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-25	LT-9-4	Total/NA	Solid	3546	
440-160075-26	LT-9-8	Total/NA	Solid	3546	
MB 440-361558/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-361558/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-160075-25 MS	LT-9-4	Total/NA	Solid	3546	
440-160075-25 MSD	LT-9-4	Total/NA	Solid	3546	

Analysis Batch: 361794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-25	LT-9-4	Total/NA	Solid	8082	361558
440-160075-26	LT-9-8	Total/NA	Solid	8082	361558
MB 440-361558/1-A	Method Blank	Total/NA	Solid	8082	361558
LCS 440-361558/2-A	Lab Control Sample	Total/NA	Solid	8082	361558
440-160075-25 MS	LT-9-4	Total/NA	Solid	8082	361558
440-160075-25 MSD	LT-9-4	Total/NA	Solid	8082	361558

Metals

Prep Batch: 359662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-25	LT-9-4	Total/NA	Solid	3050B	
440-160075-26	LT-9-8	Total/NA	Solid	3050B	
MB 440-359662/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 440-359662/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
440-160075-25 MS	LT-9-4	Total/NA	Solid	3050B	
440-160075-25 MSD	LT-9-4	Total/NA	Solid	3050B	

Prep Batch: 360068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-7	LT-21-6	Total/NA	Solid	3050B	
440-160075-8	LT-21-2	Total/NA	Solid	3050B	
440-160075-15	LT-23-1a	Total/NA	Solid	3050B	
440-160075-18	LT-32-4	Total/NA	Solid	3050B	
440-160075-31	LT-4-5	Total/NA	Solid	3050B	
440-160075-41	LT-17-(Composite)	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 360068 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-42	LT-19-(Composite)	Total/NA	Solid	3050B	
440-160075-43	LT-20-(Composite)	Total/NA	Solid	3050B	
440-160075-44	LT-22-(Composite)	Total/NA	Solid	3050B	
440-160075-45	LT-26-(Composite)	Total/NA	Solid	3050B	
440-160075-46	LT-27-(Composite)	Total/NA	Solid	3050B	
440-160075-47	LT-12-(Composite)	Total/NA	Solid	3050B	
MB 440-360068/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 440-360068/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
440-160075-7 MS	LT-21-6	Total/NA	Solid	3050B	
440-160075-7 MSD	LT-21-6	Total/NA	Solid	3050B	

Prep Batch: 360101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-8	LT-21-2	Total/NA	Solid	7471A	
440-160075-15	LT-23-1a	Total/NA	Solid	7471A	
440-160075-31	LT-4-5	Total/NA	Solid	7471A	
440-160075-41	LT-17-(Composite)	Total/NA	Solid	7471A	
440-160075-42	LT-19-(Composite)	Total/NA	Solid	7471A	
440-160075-43	LT-20-(Composite)	Total/NA	Solid	7471A	
440-160075-44	LT-22-(Composite)	Total/NA	Solid	7471A	
440-160075-45	LT-26-(Composite)	Total/NA	Solid	7471A	
440-160075-46	LT-27-(Composite)	Total/NA	Solid	7471A	
440-160075-47	LT-12-(Composite)	Total/NA	Solid	7471A	
MB 440-360101/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-360101/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-160220-A-1-C MS	Matrix Spike	Total/NA	Solid	7471A	
440-160220-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Analysis Batch: 360105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-25	LT-9-4	Total/NA	Solid	6010B	359662
440-160075-26	LT-9-8	Total/NA	Solid	6010B	359662
MB 440-359662/1-A ^5	Method Blank	Total/NA	Solid	6010B	359662
LCS 440-359662/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	359662
440-160075-25 MS	LT-9-4	Total/NA	Solid	6010B	359662
440-160075-25 MSD	LT-9-4	Total/NA	Solid	6010B	359662

Prep Batch: 360250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-7	LT-21-6	Total/NA	Solid	7471A	
440-160075-18	LT-32-4	Total/NA	Solid	7471A	
440-160075-25	LT-9-4	Total/NA	Solid	7471A	
440-160075-26	LT-9-8	Total/NA	Solid	7471A	
MB 440-360250/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-360250/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-160075-7 MS	LT-21-6	Total/NA	Solid	7471A	
440-160075-7 MSD	LT-21-6	Total/NA	Solid	7471A	

Analysis Batch: 360422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-7	LT-21-6	Total/NA	Solid	7471A	360250

Metals (Continued)

Analysis Batch: 360422 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-18	LT-32-4	Total/NA	Solid	7471A	360250
440-160075-25	LT-9-4	Total/NA	Solid	7471A	360250
440-160075-26	LT-9-8	Total/NA	Solid	7471A	360250
MB 440-360250/1-A	Method Blank	Total/NA	Solid	7471A	360250
LCS 440-360250/2-A	Lab Control Sample	Total/NA	Solid	7471A	360250
440-160075-7 MS	LT-21-6	Total/NA	Solid	7471A	360250
440-160075-7 MSD	LT-21-6	Total/NA	Solid	7471A	360250

Analysis Batch: 360423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-41	LT-17-(Composite)	Total/NA	Solid	7471A	360101
440-160075-42	LT-19-(Composite)	Total/NA	Solid	7471A	360101
440-160075-43	LT-20-(Composite)	Total/NA	Solid	7471A	360101
440-160075-44	LT-22-(Composite)	Total/NA	Solid	7471A	360101
MB 440-360101/1-A	Method Blank	Total/NA	Solid	7471A	360101
LCS 440-360101/2-A	Lab Control Sample	Total/NA	Solid	7471A	360101
440-160220-A-1-C MS	Matrix Spike	Total/NA	Solid	7471A	360101
440-160220-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	360101

Analysis Batch: 360424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-8	LT-21-2	Total/NA	Solid	7471A	360101
440-160075-15	LT-23-1a	Total/NA	Solid	7471A	360101
440-160075-31	LT-4-5	Total/NA	Solid	7471A	360101
440-160075-45	LT-26-(Composite)	Total/NA	Solid	7471A	360101
440-160075-46	LT-27-(Composite)	Total/NA	Solid	7471A	360101
440-160075-47	LT-12-(Composite)	Total/NA	Solid	7471A	360101

Analysis Batch: 360465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-7	LT-21-6	Total/NA	Solid	6010B	360068
440-160075-15	LT-23-1a	Total/NA	Solid	6010B	360068
440-160075-31	LT-4-5	Total/NA	Solid	6010B	360068
440-160075-41	LT-17-(Composite)	Total/NA	Solid	6010B	360068
440-160075-42	LT-19-(Composite)	Total/NA	Solid	6010B	360068
440-160075-43	LT-20-(Composite)	Total/NA	Solid	6010B	360068
440-160075-44	LT-22-(Composite)	Total/NA	Solid	6010B	360068
440-160075-46	LT-27-(Composite)	Total/NA	Solid	6010B	360068
440-160075-47	LT-12-(Composite)	Total/NA	Solid	6010B	360068
MB 440-360068/1-A ^5	Method Blank	Total/NA	Solid	6010B	360068
LCS 440-360068/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	360068
440-160075-7 MS	LT-21-6	Total/NA	Solid	6010B	360068
440-160075-7 MSD	LT-21-6	Total/NA	Solid	6010B	360068

Analysis Batch: 360576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160075-8	LT-21-2	Total/NA	Solid	6010B	360068
440-160075-18	LT-32-4	Total/NA	Solid	6010B	360068
440-160075-45	LT-26-(Composite)	Total/NA	Solid	6010B	360068

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
H	Sample was prepped or analyzed beyond the specified holding time
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160075-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16 *
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 16-001r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Certification renewal pending - certification considered valid.

Tran, Dennis Lam

From: Murray, Camille
Sent: Friday, September 30, 2016 11:19 AM
To: Tran, Dennis Lam
Subject: FW: Analysis update

From: Drew Lassen [mailto:dlassen@langan.com]
Sent: Friday, September 30, 2016 11:18 AM
To: Murray, Camille
Subject: Analysis update

Hi Camille,
Please run the samples LT-9-4 and LT-9-8 for all of the analyses listed on the COC.
Thanks,
Drew

Drew Lassen
Senior Project Manager
Direct: 949.255.8644<tel:949.255.8644>
Mobile: 805.708.7200<tel:805.708.7200>

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ABU DHABI ATHENS DOHA DUBAI ISTANBUL LONDON PANAMA

Langan's goal is to be SAFE (Stay Accident Free Everyday)
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TestAmerica Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614-5843
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 9/19/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	1 of 4 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-17-3	9/19/16	1255	G	S	1								Hold
LT-17-5	9/19/16	1258	G	S	1								
LT-19-1	9/19/16	1115	G	S	1								
LT-19-4	9/19/16	1120	G	S	1								
LT-20-3	9/19/16	1215	G	S	1								
LT-20-4	9/19/16	1218	G	S	1								
LT-21-6	9/19/16	1005	G	S	1								
LT-21-2	9/19/16	1007	G	S	1								
LT-22-5	9/19/16	1145	G	S	1								
LT-22-4	9/19/16	1149	G	S	1								
LT-28-2	9/19/16	1330	G	S	1								
LT-28-1	9/19/16	1335	G	S	1								



9/19 1800

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company: Langan	Date/Time: 9/29/16 1135	Received by: Willie Rivera	Company: TAI	Date/Time: 9/29/16 1135
Relinquished by: Willie Rivera	Company: TAI	Date/Time: 9/29/16 1710	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 9/29/16 17:10

1.3/0.7 #74

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

TestAmerica Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614-5843
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 9/20/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	2 of 4 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-26-2	9/20/16	0930	G	S	1								Hold
LT-26-3	9/20/16	0940	G	S	1								
LT-23-1a	9/20/16	1135	G	S	1								
LT-23-1b	9/20/16	1140	G	S	1								
LT-32-0	9/20/16	1319	G	S	1								
LT-32-4	9/20/16	1315	G	S	1								
LT-31-2	9/20/16	1359	G	S	1								
LT-31-4	9/20/16	1355	G	S	1								
LT-33-1	9/20/16	1400	G	S	1								
LT-33-2	9/20/16	1405	G	S	1								
LT-27-2	9/20/16	1025	G	S	1								
LT-27-5	9/20/16	1028	G	S	1								

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____		Therm ID No.:_____
Relinquished by:	Company: Langan	Date/Time: 9/29/16 1135	Received by: Willie Rivera	Company: TAI	Date/Time: 9/29/16 1135
Relinquished by: Willie Rivera	Company: TAI	Date/Time: 9/29/16 1710	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 9/29/16 17:10

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

TestAmerica Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614-5843
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 9/21/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	3 of 4 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-9-4	9/21/16	1243	G	S	1								Hold
LT-9-8	9/21/16	1248	G	S	1								
LT-13-5	9/21/16	1040	G	S	1								
LT-13-10	9/21/16	1045	G	S	1								
LT-8-10.5	9/21/16	1307	G	S	1								
LT-8-3	9/21/16	1301	G	S	1								
LT-4-5	9/21/16	1251	G	S	1								

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____	Therm ID No.:_____
Relinquished by:	Company: Langan	Date/Time: 9/29/16 1135	Received by: Willie Rivera	Company: TAI	Date/Time: 9/29/16 1135
Relinquished by: Willie Rivera	Company: TAI	Date/Time: 9/29/16 1710	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 9/29/16 17:10

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TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 9/22/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	4 of 4 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-12-4	9/22/16	1015	G	S	1								Hold
LT-12-12	9/22/16	1018	G	S	1								
LT-35-5	9/22/16	1315	G	S	1								
LT-2-5	9/22/16	1225	G	S	1								
LT-2-13	9/22/16	1230	G	S	1								
LT-11-5	9/22/16	0835	G	S	1								
LT-11-15	9/22/16	0845	G	S	1								
LT-AS1	9/22/16	1127	G	S	1								
LT-AS2	9/22/16	1124	G	S	1								

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company: Langan	Date/Time: 9/29/16 1135	Received by: Willie Rivera	Company: TAI	Date/Time: 9/29/16 1135
Relinquished by: Willie Rivera	Company: TAI	Date/Time: 9/29/16 1710	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 9/29/16 17:10

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 9/19/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	_____ of _____ COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-17-3	9/19/16	1255	G	S	1						X		COMPOSITE
LT-17-5	9/19/16	1258	G	S	1						X		
LT-19-1	9/19/16	1115	G	S	1						X		COMPOSITE
LT-19-4	9/19/16	1120	G	S	1						X		
LT-20-3	9/19/16	1215	G	S	1						X		COMPOSITE
LT-20-4	9/19/16	1218	G	S	1						X		
LT-21-6	9/19/16	1005	G	S	1						X		
LT-21-2	9/19/16	1007	G	S	1						X		
LT-22-5	9/19/16	1145	G	S	1						X		COMPOSITE
LT-22-4	9/19/16	1149	G	S	1						X		
LT-28-2	9/19/16	1330	G	S	1								HOLD
LT-28-1	9/19/16	1335	G	S	1								HOLD



Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

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☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

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THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 9/20/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	_____ of _____ COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-26-2	9/20/16	0930	G	S	1			X			X	X	COMPOSITE
LT-26-3	9/20/16	0940	G	S	1			X			X	X	
LT-23-1a	9/20/16	1135	G	S	1						X		
LT-23-1b	9/20/16	1140	G	S	1								HOLD
LT-32-0	9/20/16	1319	G	S	1								HOLD
LT-32-4	9/20/16	1315	G	S	1						X		
LT-31-2	9/20/16	1359	G	S	1								HOLD
LT-31-4	9/20/16	1355	G	S	1								HOLD
LT-33-1	9/20/16	1400	G	S	1								HOLD
LT-33-2	9/20/16	1405	G	S	1								HOLD
LT-27-2	9/20/16	1025	G	S	1						X		COMPOSITE
LT-27-5	9/20/16	1028	G	S	1						X		

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

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Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____		Therm ID No.:_____
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

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(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-9-4	9/21/16	1243	G	S	1			X	X	X	X	X	
LT-9-8	9/21/16	1248	G	S	1			X	X	X	X	X	
LT-13-5	9/21/16	1040	G	S	1								HOLD
LT-13-10	9/21/16	1045	G	S	1								HOLD
LT-8-10.5	9/21/16	1307	G	S	1			X	X				
LT-8-3	9/21/16	1301	G	S	1								HOLD
LT-4-5	9/21/16	1251	G	S	1						X		

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
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Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____		Therm ID No.:_____
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

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Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 9/22/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	_____ of _____ COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-12-4	9/22/16	1015	G	S	1						X	X	COMPOSITE
LT-12-12	9/22/16	1018	G	S	1						X	X	
LT-35-5	9/22/16	1315	G	S	1								HOLD
LT-2-5	9/22/16	1225	G	S	1								HOLD
LT-2-13	9/22/16	1230	G	S	1								HOLD
LT-11-5	9/22/16	0835	G	S	1			X			X	X	
LT-11-15	9/22/16	0845	G	S	1								HOLD
~~LT-AS1~~	~~9/22/16~~	~~1127~~	G	S	1							X	
~~LT-AS2~~	~~9/22/16~~	~~1124~~	G	S	1							X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____		Therm ID No.:_____
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

Re: Agua Mansa Commerce Park Discrepancies

Drew Lassen <dlassen@langan.com>

Tue 10/4/2016 1:45 PM

To:Tran, Dennis Lam <Dennis.Tran@testamericainc.com>;

Cc:Murray, Camille <Camille.Murray@testamericainc.com>;

Hi Dennis,
Sorry for that discrepancy, you can cross those samples off of the COC from 9/29. Those samples were actually submitted this morning, and are listed on page 2 of the COC from today.
Thanks,
Drew

Drew Lassen
Senior Project Manager
Direct: 949.255.8644<tel:949.255.8644>
Mobile: 805.708.7200<tel:805.708.7200>

LANGAN
www.langan.com<http://www.langan.com/>
CALIFORNIA NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA WASHINGTON, DC
VIRGINIA WEST VIRGINIA OHIO FLORIDA TEXAS NORTH DAKOTA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL LONDON PANAMA

Langan's goal is to be SAFE (Stay Accident Free Everyday)

On Oct 4, 2016, at 1:37 PM, Tran, Dennis Lam <Dennis.Tran@testamericainc.com<mailto:Dennis.Tran@testamericainc.com>> wrote:

Hi Drew,

COC 440-160075 attached was received 9/29/16. The other COC was received 10/4/16. Samples LT-11-5 and LT-11-15 are listed on the COC, but were not received. Sample LT-11-5 is marked for TPH 8015, Title 22 Metals and PCBs 8080. Sample LT-11-15 is marked on hold.

Please feel free to contact me, or your PM, Camille Murray, if you have any questions.

Thank you,

DENNIS TRAN
Project Management Assistant

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

17461 Derian Avenue Suite #100
Irvine, CA 92614
Tel 949 261 1022 Fax 949 260 3299
Dir 949 260 3236
www.testamericainc.com<http://cp.mcafee.com/d/2DRPoAcz8AcCQm1PXybb0VwTsSDtZ5xVBdxYSDtZ5xVBdVwSDtZ5xVBdxMSnhdE7XiDM1h-M8X3BPp-M8X3BPrGbab3EV_HYYed7dNMVfHTbFIFzKhsood7bW9EVVqWdAklkrLYG7DR8OJMddECQjt-jKUMe73CkTztPo0avQDGLNBrpgJO-6Qfx2leD7o0GvQDGLNBrpgJOVJ6ZQrzDPowhrQQg3uMFFEw4GGG_6TCy0br4Gq80WlbhZromBZ3rbNIMT9SgVX>

< SIRVPRN0416100413270.pdf>
< COC 440-160075 (201609291818)(1).pdf>
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Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Srvcs

Job Number: 440-160075-1

Login Number: 160075

List Source: TestAmerica Irvine

List Number: 1

Creator: Soderblom, Tim

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Analyses listed on COC; individual samples not designated for specific analyses
Is the Field Sampler's name present on COC?	False	Field on COC is blank.
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	False	(Composite)
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-160409-1
Client Project/Site: Agua Mansa Commerce Park

For:
Langan Engineering & Environmental Srvcs
32 Executive Park
Suite 130
Irvine, California 92614

Attn: Drew Lassen

Authorized for release by:
10/12/2016 4:08:32 PM

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 6
Method Summary 21
Lab Chronicle 22
QC Sample Results 28
QC Association Summary 48
Definitions/Glossary 53
Certification Summary 54
Chain of Custody 55
Receipt Checklists 65

Sample Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-160409-1	LT-5-1	Solid	09/27/16 09:50	10/03/16 16:40
440-160409-5	LT-6-(Composite)	Solid	09/27/16 10:20	10/03/16 16:40
440-160409-15	LT-MW1B-(Composite)	Solid	09/28/16 08:59	10/03/16 16:40
440-160409-21	LT-MW1C-(Composite)	Solid	09/28/16 09:12	10/03/16 16:40
440-160409-26	LT-EBermC-(Composite)	Solid	09/28/16 10:00	10/03/16 16:40
440-160409-31	LT-EBermD-(Composite)	Solid	09/28/16 10:27	10/03/16 16:40
440-160409-37	LT-SBermA-(Composite)	Solid	09/28/16 11:42	10/03/16 16:40
440-160409-42	LT-SBermB-(Composite)	Solid	09/28/16 12:15	10/03/16 16:40
440-160409-43	LT-XF1-0.5	Solid	09/28/16 12:50	10/03/16 16:40
440-160409-44	LT-XF2-0.5	Solid	09/28/16 13:08	10/03/16 16:40
440-160409-45	LT-XF3-0.5	Solid	09/28/16 13:17	10/03/16 16:40
440-160409-49	LT-NBermA-(Composite)	Solid	09/28/16 13:49	10/03/16 16:40
440-160409-50	LT-NBermA-18	Solid	09/28/16 13:55	10/03/16 16:40
440-160409-53	LT-NBermB-(Composite)	Solid	09/28/16 14:00	10/03/16 16:40
440-160409-57	LT-NBermB-(Composite)	Solid	09/28/16 14:20	10/03/16 16:40
440-160409-58	LT-XF4-0.5	Solid	09/29/16 09:00	10/03/16 16:40
440-160409-59	LT-XF6-0.5	Solid	09/29/16 10:00	10/03/16 16:40
440-160409-60	LT-XF5-0.5	Solid	09/29/16 10:10	10/03/16 16:40
440-160409-61	LT-XF7-0.5	Solid	09/29/16 10:10	10/03/16 16:40
440-160409-62	LT-XF8-0.5	Solid	09/29/16 10:18	10/03/16 16:40
440-160409-64	LT-Sewer-10	Solid	09/29/16 11:57	10/03/16 16:40
440-160409-70	LT-CBermA-(Composite)	Solid	09/29/16 13:40	10/03/16 16:40
440-160409-72	LT-10-(Composite)	Solid	09/27/16 10:55	10/03/16 16:40
440-160409-73	LT-45-(Composite)	Solid	09/27/16 11:30	10/03/16 16:40
440-160409-74	LT-47-(Composite)	Solid	09/29/16 13:03	10/03/16 16:40

Job ID: 440-160409-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-160409-1

Comments
No additional comments.

Receipt
The samples were received on 10/3/2016 4:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 18.0º C and 21.4º C.

Receipt Exceptions

The following sample(s) was received at the laboratory outside the required temperature criteria: All samples

18.2/18.0c & 21.6/21.4c IR-78 on ice.

GC/MS VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270C: There was 0% percent recovery of benzidine in the matrix spike (MS) and matrix spike duplicate (MSD) of preparation batch 440-360680. Per the EPA method, this compound is subject to oxidative loss during sample preparation.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8015B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 440-360631 and analytical batch 440-360534 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.(440-160723-A-21-B MS) and (440-160723-A-21-C MS)

Method(s) 8082: Surrogate recovery for the following sample was outside control limits: LT-XF5-0.5 (440-160409-60). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8082: The laboratory control sample (LCS) for preparation batch 440-360061 and analytical batch 440-360203 recovered outside control limits for the following analytes: 1016. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8082: The continuing calibration verification (CCV) associated with batch 440-360203 recovered above the upper control limit for 1016. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: LT-XF1-0.5 (440-160409-43), LT-XF2-0.5 (440-160409-44), LT-XF3-0.5 (440-160409-45), LT-XF4-0.5 (440-160409-58), LT-XF6-0.5 (440-160409-59), LT-XF5-0.5 (440-160409-60), LT-XF7-0.5 (440-160409-61), LT-Sewer-10 (440-160409-64) and (CCVIS 440-360203/7).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 6010B: The continuing calibration blank (CCB) for analytical batch 440-361695 contained Selenium above the reporting limit (RL). All reported samples associated with this CCB were either ND for this analyte or contained this analyte at a concentration greater than 10X the value found in the CCB; therefore, re-analysis of samples was not performed.

Method(s) 6010B: The following sample was diluted due to the nature of the sample matrix: LT-47-(Composite) (440-160409-74). Elevated reporting limits (RLs) are provided.

Job ID: 440-160409-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3546: Due to the matrix, the following sample could not be concentrated to the final method required volume: LT-45-(Composite) (440-160409-73). The reporting limits (RLs) are elevated proportionateLT-45-(Composite) (440-160409-73)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample ID: LT-5-1

Lab Sample ID: 440-160409-1

Date Collected: 09/27/16 09:50

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	F1	9.9		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Arsenic	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Barium	**31**		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Beryllium	ND		0.49		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Cadmium	ND		0.49		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Chromium	**11**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Cobalt	**2.6**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Copper	**6.2**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Lead	**3.1**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Nickel	**7.6**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Thallium	ND		9.9		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Vanadium	**25**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Zinc	**19**		4.9		mg/Kg		10/05/16 12:11	10/12/16 00:26	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:26	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/06/16 20:16	10/07/16 17:47	1

Client Sample ID: LT-6-(Composite)

Lab Sample ID: 440-160409-5

Date Collected: 09/27/16 10:20

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.8		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Arsenic	**9.5**		2.9		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Barium	**61**		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Beryllium	ND		0.49		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Cadmium	ND		0.49		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Chromium	**19**		0.98		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Cobalt	**5.0**		0.98		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Copper	**14**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Lead	**5.6**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Nickel	**14**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Selenium	ND		2.9		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Thallium	ND		9.8		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Vanadium	**32**		0.98		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Zinc	**31**		4.9		mg/Kg		10/05/16 12:11	10/12/16 00:34	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:34	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/06/16 20:16	10/07/16 17:50	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Client Sample ID: LT-MW1B-(Composite)

Lab Sample ID: 440-160409-15

Date Collected: 09/28/16 08:59

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Arsenic	**7.1**		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Barium	**59**		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Beryllium	ND		0.49		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Cadmium	**1.6**		0.49		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Chromium	**28**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Cobalt	**4.1**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Copper	**13**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Lead	**26**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Nickel	**13**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Thallium	ND		9.9		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Vanadium	**34**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Zinc	**37**		4.9		mg/Kg		10/05/16 12:11	10/12/16 00:36	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:36	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.026**		0.020		mg/Kg		10/06/16 20:16	10/07/16 17:54	1

Client Sample ID: LT-MW1C-(Composite)

Lab Sample ID: 440-160409-21

Date Collected: 09/28/16 09:12

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Arsenic	**5.0**		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Barium	**47**		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Beryllium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Cadmium	**1.1**		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Chromium	**17**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Cobalt	**4.1**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Copper	**12**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Lead	**23**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Nickel	**11**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Thallium	ND		10		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Vanadium	**27**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Zinc	**42**		5.0		mg/Kg		10/05/16 12:11	10/12/16 00:38	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:38	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.028**		0.020		mg/Kg		10/06/16 20:16	10/07/16 17:57	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Client Sample ID: LT-EBermC-(Composite)

Lab Sample ID: 440-160409-26

Date Collected: 09/28/16 10:00

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.8		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Arsenic	**8.2**		2.9		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Barium	**64**		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Beryllium	ND		0.49		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Cadmium	**1.3**		0.49		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Chromium	**23**		0.98		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Cobalt	**5.6**		0.98		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Copper	**17**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Lead	**23**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Nickel	**16**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Selenium	ND		2.9		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Thallium	ND		9.8		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Vanadium	**35**		0.98		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Zinc	**44**		4.9		mg/Kg		10/05/16 12:11	10/12/16 00:44	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:44	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.051**		0.020		mg/Kg		10/06/16 20:16	10/07/16 18:01	1

Client Sample ID: LT-EBermD-(Composite)

Lab Sample ID: 440-160409-31

Date Collected: 09/28/16 10:27

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Arsenic	**6.4**		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Barium	**53**		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Beryllium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Cadmium	**1.1**		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Chromium	**19**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Cobalt	**4.8**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Copper	**15**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Lead	**17**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Nickel	**14**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Thallium	ND		10		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Vanadium	**31**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Zinc	**37**		5.0		mg/Kg		10/05/16 12:11	10/12/16 00:46	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:46	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.022**		0.020		mg/Kg		10/06/16 20:16	10/07/16 18:04	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Client Sample ID: LT-SBermA-(Composite)

Lab Sample ID: 440-160409-37

Date Collected: 09/28/16 11:42

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Arsenic	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Barium	**57**		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Beryllium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Cadmium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Chromium	**13**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Cobalt	**2.5**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Copper	**9.4**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Lead	**9.2**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Nickel	**7.3**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Thallium	ND		10		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Vanadium	**20**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Zinc	**36**		5.0		mg/Kg		10/05/16 12:11	10/12/16 00:47	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:47	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.035**		0.020		mg/Kg		10/06/16 20:19	10/07/16 17:39	1

Client Sample ID: LT-SBermB-(Composite)

Lab Sample ID: 440-160409-42

Date Collected: 09/28/16 12:15

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Arsenic	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Barium	**50**		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Beryllium	ND		0.49		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Cadmium	ND		0.49		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Chromium	**15**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Cobalt	**2.5**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Copper	**17**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Lead	**9.7**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Nickel	**11**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Thallium	ND		9.9		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Vanadium	**18**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Zinc	**28**		4.9		mg/Kg		10/05/16 12:11	10/12/16 00:49	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:49	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/06/16 20:19	10/07/16 18:42	1

Client Sample ID: LT-XF1-0.5

Lab Sample ID: 440-160409-43

Date Collected: 09/28/16 12:50
Matrix: Solid
Date Received: 10/03/16 16:40

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND	*	50		ug/Kg		10/04/16 17:00	10/05/16 15:22	1
Aroclor 1221	ND		50		ug/Kg		10/04/16 17:00	10/05/16 15:22	1
Aroclor 1232	ND		50		ug/Kg		10/04/16 17:00	10/05/16 15:22	1
Aroclor 1242	ND		50		ug/Kg		10/04/16 17:00	10/05/16 15:22	1
Aroclor 1248	**69**		50		ug/Kg		10/04/16 17:00	10/05/16 15:22	1
Aroclor 1254	ND		50		ug/Kg		10/04/16 17:00	10/05/16 15:22	1
Aroclor 1260	ND		50		ug/Kg		10/04/16 17:00	10/05/16 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*60*		*45 - 120*	*10/04/16 17:00*	*10/05/16 15:22*	*1*

Client Sample ID: LT-XF2-0.5

Lab Sample ID: 440-160409-44

Date Collected: 09/28/16 13:08
Matrix: Solid
Date Received: 10/03/16 16:40

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND	*	50		ug/Kg		10/04/16 17:00	10/05/16 17:14	1
Aroclor 1221	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:14	1
Aroclor 1232	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:14	1
Aroclor 1242	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:14	1
Aroclor 1248	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:14	1
Aroclor 1254	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:14	1
Aroclor 1260	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*59*		*45 - 120*	*10/04/16 17:00*	*10/05/16 17:14*	*1*

Client Sample ID: LT-XF3-0.5

Lab Sample ID: 440-160409-45

Date Collected: 09/28/16 13:17
Matrix: Solid
Date Received: 10/03/16 16:40

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND	*	50		ug/Kg		10/04/16 17:00	10/05/16 17:28	1
Aroclor 1221	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:28	1
Aroclor 1232	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:28	1
Aroclor 1242	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:28	1
Aroclor 1248	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:28	1
Aroclor 1254	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:28	1
Aroclor 1260	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*85*		*45 - 120*	*10/04/16 17:00*	*10/05/16 17:28*	*1*

Client Sample ID: LT-NBermA-(Composite)

Lab Sample ID: 440-160409-49

Date Collected: 09/28/16 13:49

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Arsenic	**9.4**		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Barium	**60**		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Beryllium	ND		0.49		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Cadmium	ND		0.49		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Chromium	**23**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Cobalt	**6.0**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Copper	**18**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Lead	**9.3**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Nickel	**17**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Thallium	ND		9.9		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Vanadium	**37**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Zinc	**43**		4.9		mg/Kg		10/05/16 12:11	10/12/16 00:51	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:51	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/10/16 15:54	10/11/16 04:19	1

Client Sample ID: LT-NBermA-18

Lab Sample ID: 440-160409-50

Date Collected: 09/28/16 13:55

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Arsenic	**5.6**		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Barium	**72**		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Beryllium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Cadmium	**1.3**		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Chromium	**18**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Cobalt	**4.3**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Copper	**13**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Lead	**23**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Nickel	**12**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Thallium	ND		10		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Vanadium	**32**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Zinc	**36**		5.0		mg/Kg		10/05/16 12:11	10/12/16 00:52	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:52	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.022**		0.020		mg/Kg		10/10/16 15:54	10/11/16 04:22	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Client Sample ID: LT-NBermB-(Composite)

Lab Sample ID: 440-160409-53

Date Collected: 09/28/16 14:00

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Arsenic	**7.6**		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Barium	**73**		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Beryllium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Cadmium	**1.2**		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Chromium	**23**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Cobalt	**5.8**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Copper	**17**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Lead	**20**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Nickel	**16**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Thallium	ND		10		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Vanadium	**38**		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Zinc	**46**		5.0		mg/Kg		10/05/16 12:11	10/12/16 00:54	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:54	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**		0.020		mg/Kg		10/06/16 20:19	10/07/16 17:47	1

Client Sample ID: LT-NBermB-(Composite)

Lab Sample ID: 440-160409-57

Date Collected: 09/28/16 14:20

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Arsenic	**3.1**		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Barium	**33**		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Beryllium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Cadmium	**0.52**		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Chromium	**12**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Cobalt	**2.8**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Copper	**9.6**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Lead	**13**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Nickel	**8.6**		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Thallium	ND		9.9		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Vanadium	**21**		0.99		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Zinc	**24**		5.0		mg/Kg		10/05/16 12:11	10/12/16 00:56	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:56	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/06/16 20:19	10/07/16 17:49	1

Client Sample ID: LT-XF4-0.5

Lab Sample ID: 440-160409-58

Date Collected: 09/29/16 09:00

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND	*	50		ug/Kg		10/04/16 17:00	10/05/16 16:33	1
Aroclor 1221	ND		50		ug/Kg		10/04/16 17:00	10/05/16 16:33	1
Aroclor 1232	ND		50		ug/Kg		10/04/16 17:00	10/05/16 16:33	1
Aroclor 1242	ND		50		ug/Kg		10/04/16 17:00	10/05/16 16:33	1
Aroclor 1248	ND		50		ug/Kg		10/04/16 17:00	10/05/16 16:33	1
Aroclor 1254	ND		50		ug/Kg		10/04/16 17:00	10/05/16 16:33	1
Aroclor 1260	ND		50		ug/Kg		10/04/16 17:00	10/05/16 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*78*		*45 - 120*	*10/04/16 17:00*	*10/05/16 16:33*	*1*

Client Sample ID: LT-XF6-0.5

Lab Sample ID: 440-160409-59

Date Collected: 09/29/16 10:00

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND	*	50		ug/Kg		10/04/16 17:00	10/05/16 17:42	1
Aroclor 1221	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:42	1
Aroclor 1232	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:42	1
Aroclor 1242	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:42	1
Aroclor 1248	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:42	1
Aroclor 1254	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:42	1
Aroclor 1260	ND		50		ug/Kg		10/04/16 17:00	10/05/16 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*45*		*45 - 120*	*10/04/16 17:00*	*10/05/16 17:42*	*1*

Client Sample ID: LT-XF5-0.5

Lab Sample ID: 440-160409-60

Date Collected: 09/29/16 10:10

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND	*	49		ug/Kg		10/04/16 17:00	10/05/16 17:00	1
Aroclor 1221	ND		49		ug/Kg		10/04/16 17:00	10/05/16 17:00	1
Aroclor 1232	ND		49		ug/Kg		10/04/16 17:00	10/05/16 17:00	1
Aroclor 1242	ND		49		ug/Kg		10/04/16 17:00	10/05/16 17:00	1
Aroclor 1248	ND		49		ug/Kg		10/04/16 17:00	10/05/16 17:00	1
Aroclor 1254	ND		49		ug/Kg		10/04/16 17:00	10/05/16 17:00	1
Aroclor 1260	ND		49		ug/Kg		10/04/16 17:00	10/05/16 17:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*39*	*X*	*45 - 120*	*10/04/16 17:00*	*10/05/16 17:00*	*1*

Client Sample ID: LT-XF7-0.5

Lab Sample ID: 440-160409-61

Date Collected: 09/29/16 10:10

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND	*	50		ug/Kg		10/04/16 17:00	10/05/16 14:40	1
Aroclor 1221	ND		50		ug/Kg		10/04/16 17:00	10/05/16 14:40	1
Aroclor 1232	ND		50		ug/Kg		10/04/16 17:00	10/05/16 14:40	1
Aroclor 1242	ND		50		ug/Kg		10/04/16 17:00	10/05/16 14:40	1
Aroclor 1248	ND		50		ug/Kg		10/04/16 17:00	10/05/16 14:40	1
Aroclor 1254	ND		50		ug/Kg		10/04/16 17:00	10/05/16 14:40	1
Aroclor 1260	ND	F1	50		ug/Kg		10/04/16 17:00	10/05/16 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*54*		*45 - 120*	*10/04/16 17:00*	*10/05/16 14:40*	*1*

Client Sample ID: LT-XF8-0.5

Lab Sample ID: 440-160409-62

Date Collected: 09/29/16 10:18

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		49		ug/Kg		10/06/16 20:56	10/07/16 22:34	1
Aroclor 1221	ND		49		ug/Kg		10/06/16 20:56	10/07/16 22:34	1
Aroclor 1232	ND		49		ug/Kg		10/06/16 20:56	10/07/16 22:34	1
Aroclor 1242	ND		49		ug/Kg		10/06/16 20:56	10/07/16 22:34	1
Aroclor 1248	ND		49		ug/Kg		10/06/16 20:56	10/07/16 22:34	1
Aroclor 1254	ND		49		ug/Kg		10/06/16 20:56	10/07/16 22:34	1
Aroclor 1260	ND		49		ug/Kg		10/06/16 20:56	10/07/16 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*46*		*45 - 120*	*10/06/16 20:56*	*10/07/16 22:34*	*1*

Client Sample ID: LT-Sewer-10

Lab Sample ID: 440-160409-64

Date Collected: 09/29/16 11:57

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		9.9		ug/Kg			10/05/16 16:05	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/Kg			10/05/16 16:05	1
1,1,1-Trichloroethane	ND		0.99		ug/Kg			10/05/16 16:05	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			10/05/16 16:05	1
1,1,2-Trichloroethane	ND		0.99		ug/Kg			10/05/16 16:05	1
1,1-Dichloroethane	ND		0.99		ug/Kg			10/05/16 16:05	1
1,1-Dichloroethene	ND		2.0		ug/Kg			10/05/16 16:05	1
1,1-Dichloropropene	ND		0.99		ug/Kg			10/05/16 16:05	1
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg			10/05/16 16:05	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			10/05/16 16:05	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			10/05/16 16:05	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			10/05/16 16:05	1
1,2-Dichlorobenzene	ND		0.99		ug/Kg			10/05/16 16:05	1
1,2-Dichloroethane	ND		0.99		ug/Kg			10/05/16 16:05	1
1,2-Dichloropropane	ND		0.99		ug/Kg			10/05/16 16:05	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			10/05/16 16:05	1

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Client Sample ID: LT-Sewer-10
Date Collected: 09/29/16 11:57
Date Received: 10/03/16 16:40

Lab Sample ID: 440-160409-64
Matrix: Solid

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		0.99		ug/Kg			10/05/16 16:05	1
1,3-Dichloropropane	ND		0.99		ug/Kg			10/05/16 16:05	1
1,4-Dichlorobenzene	ND		0.99		ug/Kg			10/05/16 16:05	1
2,2-Dichloropropane	ND		2.0		ug/Kg			10/05/16 16:05	1
2-Chlorotoluene	ND		2.0		ug/Kg			10/05/16 16:05	1
4-Chlorotoluene	ND		2.0		ug/Kg			10/05/16 16:05	1
p-Isopropyltoluene	ND		0.99		ug/Kg			10/05/16 16:05	1
Benzene	ND		0.99		ug/Kg			10/05/16 16:05	1
Bromobenzene	ND		2.0		ug/Kg			10/05/16 16:05	1
Bromoform	ND		2.0		ug/Kg			10/05/16 16:05	1
Bromomethane	ND		2.0		ug/Kg			10/05/16 16:05	1
Carbon tetrachloride	ND		2.0		ug/Kg			10/05/16 16:05	1
Chlorobenzene	ND		0.99		ug/Kg			10/05/16 16:05	1
Bromochloromethane	ND		2.0		ug/Kg			10/05/16 16:05	1
Chloroethane	ND		2.0		ug/Kg			10/05/16 16:05	1
Chloroform	ND		0.99		ug/Kg			10/05/16 16:05	1
Chloromethane	ND		2.0		ug/Kg			10/05/16 16:05	1
cis-1,2-Dichloroethene	ND		0.99		ug/Kg			10/05/16 16:05	1
cis-1,3-Dichloropropene	ND		0.99		ug/Kg			10/05/16 16:05	1
Dibromochloromethane	ND		0.99		ug/Kg			10/05/16 16:05	1
Dibromomethane	ND		0.99		ug/Kg			10/05/16 16:05	1
Bromodichloromethane	ND		0.99		ug/Kg			10/05/16 16:05	1
Dichlorodifluoromethane	ND		2.0		ug/Kg			10/05/16 16:05	1
Ethylbenzene	ND		0.99		ug/Kg			10/05/16 16:05	1
Hexachlorobutadiene	ND		2.0		ug/Kg			10/05/16 16:05	1
Isopropylbenzene	ND		0.99		ug/Kg			10/05/16 16:05	1
m,p-Xylene	ND		2.0		ug/Kg			10/05/16 16:05	1
Methylene Chloride	ND		9.9		ug/Kg			10/05/16 16:05	1
Naphthalene	ND		2.0		ug/Kg			10/05/16 16:05	1
n-Butylbenzene	ND		2.0		ug/Kg			10/05/16 16:05	1
N-Propylbenzene	ND		0.99		ug/Kg			10/05/16 16:05	1
o-Xylene	ND		0.99		ug/Kg			10/05/16 16:05	1
sec-Butylbenzene	ND		2.0		ug/Kg			10/05/16 16:05	1
Styrene	ND		0.99		ug/Kg			10/05/16 16:05	1
tert-Butylbenzene	ND		2.0		ug/Kg			10/05/16 16:05	1
Tetrachloroethene	ND		0.99		ug/Kg			10/05/16 16:05	1
Toluene	ND		0.99		ug/Kg			10/05/16 16:05	1
trans-1,2-Dichloroethene	ND		0.99		ug/Kg			10/05/16 16:05	1
trans-1,3-Dichloropropene	ND		0.99		ug/Kg			10/05/16 16:05	1
Trichloroethene	ND		0.99		ug/Kg			10/05/16 16:05	1
Trichlorofluoromethane	ND		2.0		ug/Kg			10/05/16 16:05	1
Vinyl chloride	ND		2.0		ug/Kg			10/05/16 16:05	1
1,2-Dibromoethane (EDB)	ND		0.99		ug/Kg			10/05/16 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*108*		*79 - 123*		*10/05/16 16:05*	*1*
4-Bromofluorobenzene (Surr)	*102*		*79 - 120*		*10/05/16 16:05*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 120*		*10/05/16 16:05*	*1*

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Client Sample ID: LT-Sewer-10
Date Collected: 09/29/16 11:57
Date Received: 10/03/16 16:40

Lab Sample ID: 440-160409-64
Matrix: Solid

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
1,4-Dichlorobenzene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2,4,5-Trichlorophenol	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2,4,6-Trichlorophenol	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2,4-Dichlorophenol	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2,4-Dimethylphenol	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2,4-Dinitrophenol	ND		660		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2,4-Dinitrotoluene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2,6-Dinitrotoluene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2-Chloronaphthalene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2-Chlorophenol	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2-Methylnaphthalene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2-Methylphenol	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2-Nitroaniline	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
2-Nitrophenol	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
3,3'-Dichlorobenzidine	ND		830		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
3-Nitroaniline	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
4,6-Dinitro-2-methylphenol	ND		420		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
4-Bromophenyl phenyl ether	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
4-Chloro-3-methylphenol	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
4-Chloroaniline	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
4-Chlorophenyl phenyl ether	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
3-Methylphenol + 4-Methylphenol	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
4-Nitroaniline	ND		830		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
4-Nitrophenol	ND		830		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Acenaphthene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Acenaphthylene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Aniline	ND		420		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Anthracene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Benzidine	ND	F1	1300		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Benzo[a]anthracene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Benzo[a]pyrene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Benzo[b]fluoranthene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Benzo[g,h,i]perylene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Benzo[k]fluoranthene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Benzoic acid	ND		830		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Benzyl alcohol	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Bis(2-chloroethoxy)methane	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Bis(2-chloroethyl)ether	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Bis(2-ethylhexyl) phthalate	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Butyl benzyl phthalate	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Chrysene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Dibenz(a,h)anthracene	ND		420		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Dibenzofuran	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Diethyl phthalate	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Dimethyl phthalate	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Di-n-butyl phthalate	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Di-n-octyl phthalate	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Fluoranthene	ND		330		ug/Kg		10/06/16 20:38	10/09/16 01:22	1

Client Sample ID: LT-Sewer-10

Date Collected: 09/29/16 11:57
Date Received: 10/03/16 16:40

Lab Sample ID: 440-160409-64

Matrix: Solid

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Hexachlorobenzene	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Hexachlorobutadiene	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Hexachlorocyclopentadiene	ND		830	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Hexachloroethane	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Indeno[1,2,3-cd]pyrene	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Isophorone	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Naphthalene	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Nitrobenzene	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
N-Nitrosodi-n-propylamine	ND		250	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
N-Nitrosodiphenylamine	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Pentachlorophenol	ND		830	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Phenanthrene	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Phenol	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
Pyrene	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
bis (2-chloroisopropyl) ether	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1
N-Nitrosodimethylamine	ND		330	ug/Kg		10/06/16 20:38	10/09/16 01:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*42 - 113*	*10/06/16 20:38*	*10/09/16 01:22*	*1*
2-Fluorophenol (Surr)	*77*		*18 - 138*	*10/06/16 20:38*	*10/09/16 01:22*	*1*
2,4,6-Tribromophenol (Surr)	*78*		*10 - 147*	*10/06/16 20:38*	*10/09/16 01:22*	*1*
Nitrobenzene-d5 (Surr)	*68*		*39 - 104*	*10/06/16 20:38*	*10/09/16 01:22*	*1*
Terphenyl-d14 (Surr)	*81*		*43 - 125*	*10/06/16 20:38*	*10/09/16 01:22*	*1*
Phenol-d6 (Surr)	*78*		*37 - 125*	*10/06/16 20:38*	*10/09/16 01:22*	*1*

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		390	ug/Kg			10/08/16 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*65 - 140*		*10/08/16 13:00*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		4.9	mg/Kg		10/06/16 20:42	10/08/16 02:17	1
C23-C40	**11**		4.9	mg/Kg		10/06/16 20:42	10/08/16 02:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*94*		*40 - 140*	*10/06/16 20:42*	*10/08/16 02:17*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND	*	50	ug/Kg		10/04/16 17:00	10/05/16 16:19	1
Aroclor 1221	ND		50	ug/Kg		10/04/16 17:00	10/05/16 16:19	1
Aroclor 1232	ND		50	ug/Kg		10/04/16 17:00	10/05/16 16:19	1
Aroclor 1242	ND		50	ug/Kg		10/04/16 17:00	10/05/16 16:19	1
Aroclor 1248	ND		50	ug/Kg		10/04/16 17:00	10/05/16 16:19	1
Aroclor 1254	ND		50	ug/Kg		10/04/16 17:00	10/05/16 16:19	1
Aroclor 1260	ND		50	ug/Kg		10/04/16 17:00	10/05/16 16:19	1

Client Sample ID: LT-Sewer-10

Lab Sample ID: 440-160409-64

Date Collected: 09/29/16 11:57

Matrix: Solid

Date Received: 10/03/16 16:40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*76*		*45 - 120*	*10/04/16 17:00*	*10/05/16 16:19*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Arsenic	**4.5**		3.0	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Barium	**52**		1.5	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Beryllium	ND		0.50	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Cadmium	ND		0.50	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Chromium	**12**		0.99	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Cobalt	**3.8**		0.99	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Copper	**10**		2.0	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Lead	**8.4**		2.0	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Molybdenum	ND		2.0	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Nickel	**7.9**		2.0	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Selenium	ND		3.0	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Thallium	ND		9.9	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Vanadium	**27**		0.99	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Zinc	**53**		5.0	mg/Kg		10/05/16 12:11	10/12/16 00:58	5
Silver	ND		1.5	mg/Kg		10/05/16 12:11	10/12/16 00:58	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.020**		0.020	mg/Kg		10/10/16 15:54	10/11/16 04:26	1

Client Sample ID: LT-CBermA-(Composite)

Lab Sample ID: 440-160409-70

Date Collected: 09/29/16 13:40

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Arsenic	ND		3.0	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Barium	**33**		1.5	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Beryllium	ND		0.50	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Cadmium	ND		0.50	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Chromium	**11**		1.0	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Cobalt	**2.7**		1.0	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Copper	**7.7**		2.0	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Lead	**2.7**		2.0	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Molybdenum	ND		2.0	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Nickel	**7.7**		2.0	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Selenium	ND		3.0	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Thallium	ND		10	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Vanadium	**21**		1.0	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Zinc	**19**		5.0	mg/Kg		10/05/16 12:11	10/12/16 00:59	5
Silver	ND		1.5	mg/Kg		10/05/16 12:11	10/12/16 00:59	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	mg/Kg		10/06/16 20:19	10/07/16 17:58	1

Client Sample ID: LT-10-(Composite)

Lab Sample ID: 440-160409-72

Date Collected: 09/27/16 10:55

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Arsenic	**4.1**		3.0		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Barium	**40**		1.5		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Beryllium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Cadmium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Chromium	**13**		1.0		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Cobalt	**3.4**		1.0		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Copper	**9.8**		2.0		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Lead	**6.0**		2.0		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Nickel	**9.1**		2.0		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Thallium	ND		10		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Vanadium	**26**		1.0		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Zinc	**25**		5.0		mg/Kg		10/05/16 12:11	10/12/16 01:05	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 01:05	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/06/16 20:19	10/07/16 18:00	1

Client Sample ID: LT-45-(Composite)

Lab Sample ID: 440-160409-73

Date Collected: 09/27/16 11:30

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		390		ug/Kg			10/08/16 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*73*		*65 - 140*		*10/08/16 13:29*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	**100**		20		mg/Kg		10/06/16 20:42	10/10/16 22:44	1
C23-C40	**600**		20		mg/Kg		10/06/16 20:42	10/10/16 22:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*74*		*40 - 140*	*10/06/16 20:42*	*10/10/16 22:44*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Arsenic	**5.3**		3.0		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Barium	**55**		1.5		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Beryllium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Cadmium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Chromium	**19**		0.99		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Cobalt	**4.4**		0.99		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Copper	**13**		2.0		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Lead	**8.2**		2.0		mg/Kg		10/05/16 12:11	10/12/16 01:07	5

Client Sample ID: LT-45-(Composite)

Lab Sample ID: 440-160409-73

Date Collected: 09/27/16 11:30

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Nickel	**14**		2.0		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Thallium	ND		9.9		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Vanadium	**30**		0.99		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Zinc	**41**		5.0		mg/Kg		10/05/16 12:11	10/12/16 01:07	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 01:07	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/10/16 15:54	10/11/16 04:29	1

Client Sample ID: LT-47-(Composite)

Lab Sample ID: 440-160409-74

Date Collected: 09/29/16 13:03

Matrix: Solid

Date Received: 10/03/16 16:40

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		20		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Arsenic	**12**		6.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Barium	**67**		3.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Beryllium	ND		1.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Cadmium	**4.0**		1.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Chromium	**25**		2.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Cobalt	**3.1**		2.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Copper	**16**		4.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Lead	**51**		4.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Molybdenum	ND		4.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Nickel	**13**		4.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Selenium	ND		6.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Thallium	ND		20		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Vanadium	**28**		2.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Zinc	**63**		10		mg/Kg		10/05/16 12:11	10/11/16 13:50	10
Silver	ND		3.0		mg/Kg		10/05/16 12:11	10/11/16 13:50	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.073**		0.020		mg/Kg		10/06/16 20:19	10/07/16 18:03	1

Method Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL IRV
8015B	Gasoline Range Organics - (GC)	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
7471A	Mercury (CVAA)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client Sample ID: LT-5-1

Lab Sample ID: 440-160409-1

Date Collected: 09/27/16 09:50

Matrix: Solid

Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:26	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360673	10/06/16 20:16	DB	TAL IRV
Total/NA	Analysis	7471A		1			361262	10/07/16 17:47	DB	TAL IRV

Client Sample ID: LT-6-(Composite)

Lab Sample ID: 440-160409-5

Date Collected: 09/27/16 10:20

Matrix: Solid

Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.04 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:34	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360673	10/06/16 20:16	DB	TAL IRV
Total/NA	Analysis	7471A		1			361262	10/07/16 17:50	DB	TAL IRV

Client Sample ID: LT-MW1B-(Composite)

Lab Sample ID: 440-160409-15

Date Collected: 09/28/16 08:59

Matrix: Solid

Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:36	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360673	10/06/16 20:16	DB	TAL IRV
Total/NA	Analysis	7471A		1			361262	10/07/16 17:54	DB	TAL IRV

Client Sample ID: LT-MW1C-(Composite)

Lab Sample ID: 440-160409-21

Date Collected: 09/28/16 09:12

Matrix: Solid

Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:38	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360673	10/06/16 20:16	DB	TAL IRV
Total/NA	Analysis	7471A		1			361262	10/07/16 17:57	DB	TAL IRV

Client Sample ID: LT-EBermC-(Composite)

Lab Sample ID: 440-160409-26

Date Collected: 09/28/16 10:00

Matrix: Solid

Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.04 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:44	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360673	10/06/16 20:16	DB	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Client Sample ID: LT-EBermC-(Composite)

Lab Sample ID: 440-160409-26

Date Collected: 09/28/16 10:00
Matrix: Solid
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471A		1			361262	10/07/16 18:01	DB	TAL IRV

Client Sample ID: LT-EBermD-(Composite)

Lab Sample ID: 440-160409-31

Date Collected: 09/28/16 10:27
Matrix: Solid
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:46	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360673	10/06/16 20:16	DB	TAL IRV
Total/NA	Analysis	7471A		1			361262	10/07/16 18:04	DB	TAL IRV

Client Sample ID: LT-SBermA-(Composite)

Lab Sample ID: 440-160409-37

Date Collected: 09/28/16 11:42
Matrix: Solid
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.00 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:47	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360674	10/06/16 20:19	DB	TAL IRV
Total/NA	Analysis	7471A		1			361280	10/07/16 17:39	DB	TAL IRV

Client Sample ID: LT-SBermB-(Composite)

Lab Sample ID: 440-160409-42

Date Collected: 09/28/16 12:15
Matrix: Solid
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:49	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360674	10/06/16 20:19	DB	TAL IRV
Total/NA	Analysis	7471A		1			361280	10/07/16 18:42	DB	TAL IRV

Client Sample ID: LT-XF1-0.5

Lab Sample ID: 440-160409-43

Date Collected: 09/28/16 12:50
Matrix: Solid
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.01 g	2 mL	360061	10/04/16 17:00	LEG	TAL IRV
Total/NA	Analysis	8082		1			360203	10/05/16 15:22	JM	TAL IRV

Client Sample ID: LT-XF2-0.5

Lab Sample ID: 440-160409-44

Date Collected: 09/28/16 13:08

Matrix: Solid

Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.07 g	2 mL	360061	10/04/16 17:00	LEG	TAL IRV
Total/NA	Analysis	8082		1			360203	10/05/16 17:14	JM	TAL IRV

Client Sample ID: LT-XF3-0.5

Lab Sample ID: 440-160409-45

Date Collected: 09/28/16 13:17

Matrix: Solid

Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.05 g	2 mL	360061	10/04/16 17:00	LEG	TAL IRV
Total/NA	Analysis	8082		1			360203	10/05/16 17:28	JM	TAL IRV

Client Sample ID: LT-NBermA-(Composite)

Lab Sample ID: 440-160409-49

Date Collected: 09/28/16 13:49

Matrix: Solid

Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:51	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	361291	10/10/16 15:54	DB	TAL IRV
Total/NA	Analysis	7471A		1			361458	10/11/16 04:19	DB	TAL IRV

Client Sample ID: LT-NBermA-18

Lab Sample ID: 440-160409-50

Date Collected: 09/28/16 13:55

Matrix: Solid

Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:52	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	361291	10/10/16 15:54	DB	TAL IRV
Total/NA	Analysis	7471A		1			361458	10/11/16 04:22	DB	TAL IRV

Client Sample ID: LT-NBermB-(Composite)

Lab Sample ID: 440-160409-53

Date Collected: 09/28/16 14:00

Matrix: Solid

Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.00 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:54	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360674	10/06/16 20:19	DB	TAL IRV
Total/NA	Analysis	7471A		1			361280	10/07/16 17:47	DB	TAL IRV

Client Sample ID: LT-NBermB-(Composite) — **Lab Sample ID: 440-160409-57**
Date Collected: 09/28/16 14:20 — **Matrix: Solid**
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:56	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360674	10/06/16 20:19	DB	TAL IRV
Total/NA	Analysis	7471A		1			361280	10/07/16 17:49	DB	TAL IRV

Client Sample ID: LT-XF4-0.5 — **Lab Sample ID: 440-160409-58**
Date Collected: 09/29/16 09:00 — **Matrix: Solid**
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.04 g	2 mL	360061	10/04/16 17:00	LEG	TAL IRV
Total/NA	Analysis	8082		1			360203	10/05/16 16:33	JM	TAL IRV

Client Sample ID: LT-XF6-0.5 — **Lab Sample ID: 440-160409-59**
Date Collected: 09/29/16 10:00 — **Matrix: Solid**
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.06 g	2 mL	360061	10/04/16 17:00	LEG	TAL IRV
Total/NA	Analysis	8082		1			360203	10/05/16 17:42	JM	TAL IRV

Client Sample ID: LT-XF5-0.5 — **Lab Sample ID: 440-160409-60**
Date Collected: 09/29/16 10:10 — **Matrix: Solid**
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.16 g	2 mL	360061	10/04/16 17:00	LEG	TAL IRV
Total/NA	Analysis	8082		1			360203	10/05/16 17:00	JM	TAL IRV

Client Sample ID: LT-XF7-0.5 — **Lab Sample ID: 440-160409-61**
Date Collected: 09/29/16 10:10 — **Matrix: Solid**
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.05 g	2 mL	360061	10/04/16 17:00	LEG	TAL IRV
Total/NA	Analysis	8082		1			360203	10/05/16 14:40	JM	TAL IRV

Client Sample ID: LT-XF8-0.5 — **Lab Sample ID: 440-160409-62**
Date Collected: 09/29/16 10:18 — **Matrix: Solid**
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.27 g	2 mL	360624	10/06/16 20:56	VA	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Client Sample ID: LT-XF8-0.5

Lab Sample ID: 440-160409-62

Date Collected: 09/29/16 10:18
Matrix: Solid
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		1			360865	10/07/16 22:34	JM	TAL IRV

Client Sample ID: LT-Sewer-10

Lab Sample ID: 440-160409-64

Date Collected: 09/29/16 11:57
Matrix: Solid
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5.04 g	10 mL	360130	10/05/16 16:05	ATL	TAL IRV
Total/NA	Prep	3546			15.02 g	1 mL	360680	10/06/16 20:38	VA	TAL IRV
Total/NA	Analysis	8270C		1			361070	10/09/16 01:22	NK1	TAL IRV
Total/NA	Analysis	8015B		1	5.08 g	10 mL	361001	10/08/16 13:00	JB	TAL IRV
Total/NA	Prep	3546			15.31 g	1 mL	360631	10/06/16 20:42	VA	TAL IRV
Total/NA	Analysis	8015B		1			360899	10/08/16 02:17	CN	TAL IRV
Total/NA	Prep	3546			15.13 g	2 mL	360061	10/04/16 17:00	LEG	TAL IRV
Total/NA	Analysis	8082		1			360203	10/05/16 16:19	JM	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:58	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	361291	10/10/16 15:54	DB	TAL IRV
Total/NA	Analysis	7471A		1			361458	10/11/16 04:26	DB	TAL IRV

Client Sample ID: LT-CBermA-(Composite)

Lab Sample ID: 440-160409-70

Date Collected: 09/29/16 13:40
Matrix: Solid
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.00 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 00:59	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360674	10/06/16 20:19	DB	TAL IRV
Total/NA	Analysis	7471A		1			361280	10/07/16 17:58	DB	TAL IRV

Client Sample ID: LT-10-(Composite)

Lab Sample ID: 440-160409-72

Date Collected: 09/27/16 10:55
Matrix: Solid
Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 01:05	VS	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360674	10/06/16 20:19	DB	TAL IRV
Total/NA	Analysis	7471A		1			361280	10/07/16 18:00	DB	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Client Sample ID: LT-45-(Composite)

Lab Sample ID: 440-160409-73

Date Collected: 09/27/16 11:30

Matrix: Solid

Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.07 g	10 mL	361001	10/08/16 13:29	JB	TAL IRV
Total/NA	Prep	3546			7.45 g	2 mL	360631	10/06/16 20:42	VA	TAL IRV
Total/NA	Analysis	8015B		1			361148	10/10/16 22:44	CN	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361695	10/12/16 01:07	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	361291	10/10/16 15:54	DB	TAL IRV
Total/NA	Analysis	7471A		1			361458	10/11/16 04:29	DB	TAL IRV

Client Sample ID: LT-47-(Composite)

Lab Sample ID: 440-160409-74

Date Collected: 09/29/16 13:03

Matrix: Solid

Date Received: 10/03/16 16:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.00 g	50 mL	360262	10/05/16 12:11	DT	TAL IRV
Total/NA	Analysis	6010B		10			361745	10/11/16 13:50	EN	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360674	10/06/16 20:19	DB	TAL IRV
Total/NA	Analysis	7471A		1			361280	10/07/16 18:03	DB	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-360130/8
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		10		ug/Kg			10/05/16 10:12	1
1,1,1,2-Tetrachloroethane	ND		2.0		ug/Kg			10/05/16 10:12	1
1,1,1-Trichloroethane	ND		1.0		ug/Kg			10/05/16 10:12	1
1,1,2,2-Tetrachloroethane	ND		2.0		ug/Kg			10/05/16 10:12	1
1,1,2-Trichloroethane	ND		1.0		ug/Kg			10/05/16 10:12	1
1,1-Dichloroethane	ND		1.0		ug/Kg			10/05/16 10:12	1
1,1-Dichloroethene	ND		2.0		ug/Kg			10/05/16 10:12	1
1,1-Dichloropropene	ND		1.0		ug/Kg			10/05/16 10:12	1
1,2,3-Trichlorobenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
1,2,4-Trichlorobenzene	ND		5.0		ug/Kg			10/05/16 10:12	1
1,2,4-Trimethylbenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/Kg			10/05/16 10:12	1
1,2-Dichlorobenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
1,2-Dichloroethane	ND		1.0		ug/Kg			10/05/16 10:12	1
1,2-Dichloropropane	ND		1.0		ug/Kg			10/05/16 10:12	1
1,3,5-Trimethylbenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
1,3-Dichlorobenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
1,3-Dichloropropane	ND		1.0		ug/Kg			10/05/16 10:12	1
1,4-Dichlorobenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
2,2-Dichloropropane	ND		2.0		ug/Kg			10/05/16 10:12	1
2-Chlorotoluene	ND		2.0		ug/Kg			10/05/16 10:12	1
4-Chlorotoluene	ND		2.0		ug/Kg			10/05/16 10:12	1
p-Isopropyltoluene	ND		1.0		ug/Kg			10/05/16 10:12	1
Benzene	ND		1.0		ug/Kg			10/05/16 10:12	1
Bromobenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
Bromoform	ND		2.0		ug/Kg			10/05/16 10:12	1
Bromomethane	ND		2.0		ug/Kg			10/05/16 10:12	1
Carbon tetrachloride	ND		2.0		ug/Kg			10/05/16 10:12	1
Chlorobenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
Bromochloromethane	ND		2.0		ug/Kg			10/05/16 10:12	1
Chloroethane	ND		2.0		ug/Kg			10/05/16 10:12	1
Chloroform	ND		1.0		ug/Kg			10/05/16 10:12	1
Chloromethane	ND		2.0		ug/Kg			10/05/16 10:12	1
cis-1,2-Dichloroethene	ND		1.0		ug/Kg			10/05/16 10:12	1
cis-1,3-Dichloropropene	ND		1.0		ug/Kg			10/05/16 10:12	1
Dibromochloromethane	ND		1.0		ug/Kg			10/05/16 10:12	1
Dibromomethane	ND		1.0		ug/Kg			10/05/16 10:12	1
Bromodichloromethane	ND		1.0		ug/Kg			10/05/16 10:12	1
Dichlorodifluoromethane	ND		2.0		ug/Kg			10/05/16 10:12	1
Ethylbenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
Hexachlorobutadiene	ND		2.0		ug/Kg			10/05/16 10:12	1
Isopropylbenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
m,p-Xylene	ND		2.0		ug/Kg			10/05/16 10:12	1
Methylene Chloride	ND		10		ug/Kg			10/05/16 10:12	1
Naphthalene	ND		2.0		ug/Kg			10/05/16 10:12	1
n-Butylbenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
N-Propylbenzene	ND		1.0		ug/Kg			10/05/16 10:12	1
o-Xylene	ND		1.0		ug/Kg			10/05/16 10:12	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-360130/8
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
Styrene	ND		1.0		ug/Kg			10/05/16 10:12	1
tert-Butylbenzene	ND		2.0		ug/Kg			10/05/16 10:12	1
Tetrachloroethene	ND		1.0		ug/Kg			10/05/16 10:12	1
Toluene	ND		1.0		ug/Kg			10/05/16 10:12	1
trans-1,2-Dichloroethene	ND		1.0		ug/Kg			10/05/16 10:12	1
trans-1,3-Dichloropropene	ND		1.0		ug/Kg			10/05/16 10:12	1
Trichloroethene	ND		1.0		ug/Kg			10/05/16 10:12	1
Trichlorofluoromethane	ND		2.0		ug/Kg			10/05/16 10:12	1
Vinyl chloride	ND		2.0		ug/Kg			10/05/16 10:12	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/Kg			10/05/16 10:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*79 - 123*		*10/05/16 10:12*	*1*
4-Bromofluorobenzene (Surr)	*102*		*79 - 120*		*10/05/16 10:12*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 120*		*10/05/16 10:12*	*1*

Lab Sample ID: LCS 440-360130/9
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	50.0	47.0		ug/Kg		94	60 - 135
1,1,1,2-Tetrachloroethane	50.0	55.4		ug/Kg		111	70 - 130
1,1,1-Trichloroethane	50.0	46.7		ug/Kg		93	65 - 135
1,1,2,2-Tetrachloroethane	50.0	50.4		ug/Kg		101	55 - 140
1,1,2-Trichloroethane	50.0	59.7		ug/Kg		119	65 - 135
1,1-Dichloroethane	50.0	53.6		ug/Kg		107	70 - 130
1,1-Dichloroethene	50.0	45.6		ug/Kg		91	70 - 125
1,1-Dichloropropene	50.0	47.9		ug/Kg		96	70 - 130
1,2,3-Trichlorobenzene	50.0	56.8		ug/Kg		114	60 - 130
1,2,4-Trichlorobenzene	50.0	55.6		ug/Kg		111	70 - 135
1,2,4-Trimethylbenzene	50.0	51.5		ug/Kg		103	70 - 125
1,2-Dibromo-3-Chloropropane	50.0	43.6		ug/Kg		87	50 - 135
1,2-Dichlorobenzene	50.0	53.7		ug/Kg		107	75 - 120
1,2-Dichloroethane	50.0	58.7		ug/Kg		117	60 - 140
1,2-Dichloropropane	50.0	59.3		ug/Kg		119	70 - 130
1,3,5-Trimethylbenzene	50.0	51.1		ug/Kg		102	70 - 125
1,3-Dichlorobenzene	50.0	53.1		ug/Kg		106	75 - 125
1,3-Dichloropropane	50.0	55.9		ug/Kg		112	70 - 125
1,4-Dichlorobenzene	50.0	51.8		ug/Kg		104	75 - 120
2,2-Dichloropropane	50.0	50.5		ug/Kg		101	60 - 145
2-Chlorotoluene	50.0	54.6		ug/Kg		109	70 - 125
4-Chlorotoluene	50.0	55.7		ug/Kg		111	75 - 125
p-Isopropyltoluene	50.0	51.6		ug/Kg		103	75 - 125
Benzene	50.0	53.0		ug/Kg		106	65 - 120
Bromobenzene	50.0	54.5		ug/Kg		109	75 - 120
Bromoform	50.0	49.6		ug/Kg		99	55 - 135

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-360130/9
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	50.0	47.1		ug/Kg		94	60 - 145
Carbon tetrachloride	50.0	45.9		ug/Kg		92	65 - 140
Chlorobenzene	50.0	50.4		ug/Kg		101	75 - 120
Bromochloromethane	50.0	55.0		ug/Kg		110	70 - 135
Chloroethane	50.0	49.6		ug/Kg		99	60 - 140
Chloroform	50.0	54.9		ug/Kg		110	70 - 130
Chloromethane	50.0	36.2		ug/Kg		72	45 - 145
cis-1,2-Dichloroethene	50.0	56.4		ug/Kg		113	70 - 125
cis-1,3-Dichloropropene	50.0	62.0		ug/Kg		124	75 - 125
Dibromochloromethane	50.0	54.0		ug/Kg		108	65 - 140
Dibromomethane	50.0	55.7		ug/Kg		111	70 - 130
Bromodichloromethane	50.0	58.2		ug/Kg		116	70 - 135
Dichlorodifluoromethane	50.0	32.3		ug/Kg		65	35 - 160
Ethylbenzene	50.0	53.4		ug/Kg		107	70 - 125
Hexachlorobutadiene	50.0	49.5		ug/Kg		99	60 - 135
Isopropylbenzene	50.0	53.4		ug/Kg		107	75 - 130
m,p-Xylene	50.0	54.4		ug/Kg		109	70 - 125
Methylene Chloride	50.0	53.8		ug/Kg		108	55 - 135
Naphthalene	50.0	54.1		ug/Kg		108	55 - 135
n-Butylbenzene	50.0	51.5		ug/Kg		103	70 - 130
N-Propylbenzene	50.0	52.6		ug/Kg		105	70 - 130
o-Xylene	50.0	55.3		ug/Kg		111	70 - 125
sec-Butylbenzene	50.0	49.5		ug/Kg		99	70 - 125
Styrene	50.0	51.9		ug/Kg		104	75 - 130
tert-Butylbenzene	50.0	48.5		ug/Kg		97	70 - 125
Tetrachloroethene	50.0	46.1		ug/Kg		92	70 - 125
Toluene	50.0	53.9		ug/Kg		108	70 - 125
trans-1,2-Dichloroethene	50.0	53.8		ug/Kg		108	70 - 125
trans-1,3-Dichloropropene	50.0	56.0		ug/Kg		112	70 - 135
Trichloroethene	50.0	51.5		ug/Kg		103	70 - 125
Trichlorofluoromethane	50.0	42.0		ug/Kg		84	60 - 145
Vinyl chloride	50.0	40.6		ug/Kg		81	55 - 135
1,2-Dibromoethane (EDB)	50.0	56.7		ug/Kg		113	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*103*		*79 - 123*
4-Bromofluorobenzene (Surr)	*102*		*79 - 120*
Dibromofluoromethane (Surr)	*107*		*60 - 120*

Lab Sample ID: 440-160075-A-29 MS
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	ND		50.0	52.0		ug/Kg		104	50 - 150
1,1,1,2-Tetrachloroethane	ND		50.0	57.7		ug/Kg		115	65 - 145
1,1,1-Trichloroethane	ND		50.0	53.1		ug/Kg		106	65 - 145
1,1,2,2-Tetrachloroethane	ND		50.0	47.1		ug/Kg		94	40 - 160

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-160075-A-29 MS
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	ND		50.0	60.9		ug/Kg		122	65 - 140
1,1-Dichloroethane	ND		50.0	54.1		ug/Kg		108	65 - 135
1,1-Dichloroethene	ND		50.0	51.7		ug/Kg		103	65 - 135
1,1-Dichloropropene	ND		50.0	55.3		ug/Kg		111	65 - 135
1,2,3-Trichlorobenzene	ND		50.0	57.7		ug/Kg		115	45 - 145
1,2,4-Trichlorobenzene	ND		50.0	56.1		ug/Kg		112	50 - 140
1,2,4-Trimethylbenzene	ND		50.0	52.3		ug/Kg		105	65 - 140
1,2-Dibromo-3-Chloropropane	ND		50.0	44.6		ug/Kg		89	40 - 150
1,2-Dichlorobenzene	ND		50.0	52.9		ug/Kg		106	70 - 130
1,2-Dichloroethane	ND		50.0	57.6		ug/Kg		115	60 - 150
1,2-Dichloropropane	ND		50.0	58.7		ug/Kg		117	65 - 130
1,3,5-Trimethylbenzene	ND		50.0	52.3		ug/Kg		105	65 - 135
1,3-Dichlorobenzene	ND		50.0	53.5		ug/Kg		107	70 - 130
1,3-Dichloropropane	ND		50.0	58.3		ug/Kg		117	65 - 140
1,4-Dichlorobenzene	ND		50.0	51.2		ug/Kg		102	70 - 130
2,2-Dichloropropane	ND		50.0	57.6		ug/Kg		115	65 - 150
2-Chlorotoluene	ND		50.0	53.6		ug/Kg		107	60 - 135
4-Chlorotoluene	ND		50.0	54.7		ug/Kg		109	65 - 135
p-Isopropyltoluene	ND		50.0	54.6		ug/Kg		109	60 - 140
Benzene	ND		50.0	54.1		ug/Kg		108	65 - 130
Bromobenzene	ND		50.0	52.8		ug/Kg		106	65 - 140
Bromoform	ND		50.0	52.6		ug/Kg		105	50 - 145
Bromomethane	ND		50.0	53.3		ug/Kg		107	60 - 155
Carbon tetrachloride	ND		50.0	53.9		ug/Kg		108	60 - 145
Chlorobenzene	ND		50.0	51.1		ug/Kg		102	70 - 130
Bromochloromethane	ND		50.0	55.8		ug/Kg		112	65 - 145
Chloroethane	ND		50.0	50.0		ug/Kg		100	60 - 150
Chloroform	ND		50.0	55.2		ug/Kg		110	65 - 135
Chloromethane	ND		50.0	43.6		ug/Kg		87	40 - 145
cis-1,2-Dichloroethene	ND		50.0	56.4		ug/Kg		113	65 - 135
cis-1,3-Dichloropropene	ND		50.0	61.8		ug/Kg		124	70 - 135
Dibromochloromethane	ND		50.0	54.4		ug/Kg		109	60 - 145
Dibromomethane	ND		50.0	55.7		ug/Kg		111	65 - 140
Bromodichloromethane	ND		50.0	56.9		ug/Kg		114	65 - 145
Dichlorodifluoromethane	ND		50.0	46.5		ug/Kg		93	30 - 160
Ethylbenzene	ND		50.0	56.2		ug/Kg		112	70 - 135
Hexachlorobutadiene	ND		50.0	54.6		ug/Kg		109	50 - 145
Isopropylbenzene	ND		50.0	58.9		ug/Kg		118	70 - 145
m,p-Xylene	ND		50.0	59.9		ug/Kg		120	70 - 130
Methylene Chloride	ND		50.0	57.7		ug/Kg		115	55 - 145
Naphthalene	ND		50.0	55.6		ug/Kg		111	40 - 150
n-Butylbenzene	ND		50.0	57.8		ug/Kg		116	55 - 145
N-Propylbenzene	ND		50.0	55.2		ug/Kg		110	65 - 140
o-Xylene	ND		50.0	58.0		ug/Kg		116	65 - 130
sec-Butylbenzene	ND		50.0	53.6		ug/Kg		107	60 - 135
Styrene	ND		50.0	54.0		ug/Kg		108	70 - 140
tert-Butylbenzene	ND		50.0	50.9		ug/Kg		102	60 - 140
Tetrachloroethene	ND		50.0	53.2		ug/Kg		106	65 - 135

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-160075-A-29 MS
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	ND		50.0	55.9		ug/Kg		112	70 - 130
trans-1,2-Dichloroethene	ND		50.0	58.0		ug/Kg		116	70 - 135
trans-1,3-Dichloropropene	ND		50.0	56.6		ug/Kg		113	60 - 145
Trichloroethene	ND		50.0	60.9		ug/Kg		122	65 - 140
Trichlorofluoromethane	ND		50.0	51.0		ug/Kg		102	55 - 155
Vinyl chloride	ND		50.0	51.7		ug/Kg		103	55 - 140
1,2-Dibromoethane (EDB)	ND		50.0	58.9		ug/Kg		118	65 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Toluene-d8 (Surr)	*103*		*79 - 123*
4-Bromofluorobenzene (Surr)	*95*		*79 - 120*
Dibromofluoromethane (Surr)	*103*		*60 - 120*

Lab Sample ID: 440-160075-A-29 MSD
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		49.7	47.2		ug/Kg		95	50 - 150	10	30
1,1,1,2-Tetrachloroethane	ND		49.7	56.4		ug/Kg		113	65 - 145	2	20
1,1,1-Trichloroethane	ND		49.7	55.0		ug/Kg		111	65 - 145	4	20
1,1,2,2-Tetrachloroethane	ND		49.7	43.0		ug/Kg		87	40 - 160	9	30
1,1,2-Trichloroethane	ND		49.7	57.4		ug/Kg		115	65 - 140	6	30
1,1-Dichloroethane	ND		49.7	55.7		ug/Kg		112	65 - 135	3	25
1,1-Dichloroethene	ND		49.7	53.6		ug/Kg		108	65 - 135	4	25
1,1-Dichloropropene	ND		49.7	56.8		ug/Kg		114	65 - 135	3	20
1,2,3-Trichlorobenzene	ND		49.7	56.3		ug/Kg		113	45 - 145	2	30
1,2,4-Trichlorobenzene	ND		49.7	56.0		ug/Kg		113	50 - 140	0	30
1,2,4-Trimethylbenzene	ND		49.7	54.3		ug/Kg		109	65 - 140	4	25
1,2-Dibromo-3-Chloropropane	ND		49.7	43.0		ug/Kg		86	40 - 150	4	30
1,2-Dichlorobenzene	ND		49.7	53.8		ug/Kg		108	70 - 130	2	25
1,2-Dichloroethane	ND		49.7	54.4		ug/Kg		109	60 - 150	6	25
1,2-Dichloropropane	ND		49.7	57.6		ug/Kg		116	65 - 130	2	20
1,3,5-Trimethylbenzene	ND		49.7	53.9		ug/Kg		109	65 - 135	3	25
1,3-Dichlorobenzene	ND		49.7	54.0		ug/Kg		109	70 - 130	1	25
1,3-Dichloropropane	ND		49.7	56.4		ug/Kg		114	65 - 140	3	25
1,4-Dichlorobenzene	ND		49.7	51.9		ug/Kg		104	70 - 130	1	25
2,2-Dichloropropane	ND		49.7	57.6		ug/Kg		116	65 - 150	0	25
2-Chlorotoluene	ND		49.7	55.7		ug/Kg		112	60 - 135	4	25
4-Chlorotoluene	ND		49.7	57.3		ug/Kg		115	65 - 135	5	25
p-Isopropyltoluene	ND		49.7	58.0		ug/Kg		117	60 - 140	6	25
Benzene	ND		49.7	55.3		ug/Kg		111	65 - 130	2	20
Bromobenzene	ND		49.7	53.0		ug/Kg		107	65 - 140	0	25
Bromoform	ND		49.7	49.3		ug/Kg		99	50 - 145	6	30
Bromomethane	ND		49.7	50.7		ug/Kg		102	60 - 155	5	25
Carbon tetrachloride	ND		49.7	56.5		ug/Kg		114	60 - 145	5	25
Chlorobenzene	ND		49.7	51.5		ug/Kg		104	70 - 130	1	25
Bromochloromethane	ND		49.7	52.8		ug/Kg		106	65 - 145	6	25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-160075-A-29 MSD
Matrix: Solid
Analysis Batch: 360130

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroethane	ND		49.7	54.4		ug/Kg		109	60 - 150	9	25
Chloroform	ND		49.7	57.2		ug/Kg		115	65 - 135	4	20
Chloromethane	ND		49.7	43.7		ug/Kg		88	40 - 145	0	25
cis-1,2-Dichloroethene	ND		49.7	57.7		ug/Kg		116	65 - 135	2	25
cis-1,3-Dichloropropene	ND		49.7	61.1		ug/Kg		123	70 - 135	1	25
Dibromochloromethane	ND		49.7	52.9		ug/Kg		106	60 - 145	3	25
Dibromomethane	ND		49.7	54.1		ug/Kg		109	65 - 140	3	25
Bromodichloromethane	ND		49.7	57.0		ug/Kg		115	65 - 145	0	20
Dichlorodifluoromethane	ND		49.7	48.8		ug/Kg		98	30 - 160	5	35
Ethylbenzene	ND		49.7	57.3		ug/Kg		115	70 - 135	2	25
Hexachlorobutadiene	ND		49.7	53.7		ug/Kg		108	50 - 145	2	35
Isopropylbenzene	ND		49.7	59.6		ug/Kg		120	70 - 145	1	25
m,p-Xylene	ND		49.7	60.2		ug/Kg		121	70 - 130	1	25
Methylene Chloride	ND		49.7	57.9		ug/Kg		116	55 - 145	0	25
Naphthalene	ND		49.7	53.9		ug/Kg		108	40 - 150	3	40
n-Butylbenzene	ND		49.7	59.8		ug/Kg		120	55 - 145	3	30
N-Propylbenzene	ND		49.7	58.6		ug/Kg		118	65 - 140	6	25
o-Xylene	ND		49.7	59.5		ug/Kg		120	65 - 130	3	25
sec-Butylbenzene	ND		49.7	56.1		ug/Kg		113	60 - 135	4	25
Styrene	ND		49.7	53.8		ug/Kg		108	70 - 140	0	25
tert-Butylbenzene	ND		49.7	53.9		ug/Kg		109	60 - 140	6	25
Tetrachloroethene	ND		49.7	53.4		ug/Kg		107	65 - 135	0	25
Toluene	ND		49.7	57.4		ug/Kg		116	70 - 130	3	20
trans-1,2-Dichloroethene	ND		49.7	60.2		ug/Kg		121	70 - 135	4	25
trans-1,3-Dichloropropene	ND		49.7	55.0		ug/Kg		111	60 - 145	3	25
Trichloroethene	ND		49.7	64.0		ug/Kg		129	65 - 140	5	25
Trichlorofluoromethane	ND		49.7	53.9		ug/Kg		108	55 - 155	6	25
Vinyl chloride	ND		49.7	52.9		ug/Kg		106	55 - 140	2	30
1,2-Dibromoethane (EDB)	ND		49.7	55.8		ug/Kg		112	65 - 140	5	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*104*		*79 - 123*
4-Bromofluorobenzene (Surr)	*98*		*79 - 120*
Dibromofluoromethane (Surr)	*100*		*60 - 120*

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-360680/1-A
Matrix: Solid
Analysis Batch: 361070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360680

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
1,4-Dichlorobenzene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
2,4,5-Trichlorophenol	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
2,4,6-Trichlorophenol	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
2,4-Dichlorophenol	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
2,4-Dimethylphenol	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-360680/1-A
Matrix: Solid
Analysis Batch: 361070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360680

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		660		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
2,4-Dinitrotoluene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
2,6-Dinitrotoluene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
2-Chloronaphthalene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
2-Chlorophenol	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
2-Methylnaphthalene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
2-Methylphenol	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
2-Nitroaniline	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
2-Nitrophenol	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
3,3'-Dichlorobenzidine	ND		830		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
3-Nitroaniline	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
4,6-Dinitro-2-methylphenol	ND		420		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
4-Bromophenyl phenyl ether	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
4-Chloro-3-methylphenol	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
4-Chloroaniline	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
4-Chlorophenyl phenyl ether	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
3-Methylphenol + 4-Methylphenol	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
4-Nitroaniline	ND		830		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
4-Nitrophenol	ND		830		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Acenaphthene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Acenaphthylene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Aniline	ND		420		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Anthracene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Benzidine	ND		1300		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Benzo[a]anthracene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Benzo[a]pyrene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Benzo[b]fluoranthene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Benzo[g,h,i]perylene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Benzo[k]fluoranthene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Benzoic acid	ND		830		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Benzyl alcohol	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Bis(2-chloroethoxy)methane	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Bis(2-chloroethyl)ether	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Bis(2-ethylhexyl) phthalate	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Butyl benzyl phthalate	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Chrysene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Dibenz(a,h)anthracene	ND		420		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Dibenzofuran	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Diethyl phthalate	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Dimethyl phthalate	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Di-n-butyl phthalate	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Di-n-octyl phthalate	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Fluoranthene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Fluorene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Hexachlorobenzene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Hexachlorobutadiene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Hexachlorocyclopentadiene	ND		830		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Hexachloroethane	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-360680/1-A
Matrix: Solid
Analysis Batch: 361070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360680

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Isophorone	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Naphthalene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Nitrobenzene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
N-Nitrosodi-n-propylamine	ND		250		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
N-Nitrosodiphenylamine	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Pentachlorophenol	ND		830		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Phenanthrene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Phenol	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
Pyrene	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
bis (2-chloroisopropyl) ether	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1
N-Nitrosodimethylamine	ND		330		ug/Kg		10/06/16 20:38	10/08/16 21:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*42 - 113*	*10/06/16 20:38*	*10/08/16 21:12*	*1*
2-Fluorophenol (Surr)	*75*		*18 - 138*	*10/06/16 20:38*	*10/08/16 21:12*	*1*
2,4,6-Tribromophenol (Surr)	*71*		*10 - 147*	*10/06/16 20:38*	*10/08/16 21:12*	*1*
Nitrobenzene-d5 (Surr)	*71*		*39 - 104*	*10/06/16 20:38*	*10/08/16 21:12*	*1*
Terphenyl-d14 (Surr)	*79*		*43 - 125*	*10/06/16 20:38*	*10/08/16 21:12*	*1*
Phenol-d6 (Surr)	*76*		*37 - 125*	*10/06/16 20:38*	*10/08/16 21:12*	*1*

Lab Sample ID: LCS 440-360680/2-A
Matrix: Solid
Analysis Batch: 361070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360680

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	3330	2290		ug/Kg		69	37 - 106
1,4-Dichlorobenzene	3330	2380		ug/Kg		71	37 - 108
2,4,5-Trichlorophenol	3330	2900		ug/Kg		87	51 - 125
2,4,6-Trichlorophenol	3330	2740		ug/Kg		82	48 - 126
2,4-Dichlorophenol	3330	2930		ug/Kg		88	49 - 127
2,4-Dimethylphenol	3330	2840		ug/Kg		85	41 - 122
2,4-Dinitrophenol	6670	5750		ug/Kg		86	34 - 124
2,4-Dinitrotoluene	3330	2980		ug/Kg		90	46 - 126
2,6-Dinitrotoluene	3330	2930		ug/Kg		88	48 - 126
2-Chloronaphthalene	3330	2550		ug/Kg		77	43 - 120
2-Chlorophenol	3330	2730		ug/Kg		82	43 - 125
2-Methylnaphthalene	3330	2660		ug/Kg		80	44 - 119
2-Methylphenol	3330	3050		ug/Kg		91	42 - 130
2-Nitroaniline	3330	2980		ug/Kg		89	40 - 131
2-Nitrophenol	3330	2620		ug/Kg		79	44 - 124
3,3'-Dichlorobenzidine	3330	2690		ug/Kg		81	28 - 114
3-Nitroaniline	3330	2560		ug/Kg		77	39 - 129
4,6-Dinitro-2-methylphenol	6670	5770		ug/Kg		87	38 - 137
4-Bromophenyl phenyl ether	3330	2800		ug/Kg		84	52 - 126
4-Chloro-3-methylphenol	3330	3070		ug/Kg		92	45 - 128
4-Chloroaniline	3330	2650		ug/Kg		80	25 - 130
4-Chlorophenyl phenyl ether	3330	2770		ug/Kg		83	46 - 121

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-360680/2-A
Matrix: Solid
Analysis Batch: 361070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360680

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
3-Methylphenol + 4-Methylphenol	3330	3040		ug/Kg		91	42 - 138
4-Nitroaniline	3330	2740		ug/Kg		82	40 - 126
4-Nitrophenol	6670	6230		ug/Kg		93	35 - 130
Acenaphthene	3330	2640		ug/Kg		79	40 - 118
Acenaphthylene	3330	2600		ug/Kg		78	47 - 125
Aniline	3330	1960		ug/Kg		59	23 - 105
Anthracene	3330	2810		ug/Kg		84	51 - 122
Benzidine	3330	702	J	ug/Kg		21	5 - 61
Benzo[a]anthracene	3330	2820		ug/Kg		85	50 - 123
Benzo[a]pyrene	3330	2660		ug/Kg		80	52 - 125
Benzo[b]fluoranthene	3330	2580		ug/Kg		77	52 - 125
Benzo[g,h,i]perylene	3330	2280		ug/Kg		69	38 - 149
Benzo[k]fluoranthene	3330	2670		ug/Kg		80	50 - 132
Benzoic acid	3330	2670		ug/Kg		80	28 - 120
Benzyl alcohol	3330	2530		ug/Kg		76	20 - 133
Bis(2-chloroethoxy)methane	3330	2570		ug/Kg		77	39 - 119
Bis(2-chloroethyl)ether	3330	2530		ug/Kg		76	32 - 114
Bis(2-ethylhexyl) phthalate	3330	2840		ug/Kg		85	49 - 127
Butyl benzyl phthalate	3330	2790		ug/Kg		84	48 - 130
Chrysene	3330	2840		ug/Kg		85	51 - 127
Dibenz(a,h)anthracene	3330	3000		ug/Kg		90	45 - 136
Dibenzofuran	3330	2730		ug/Kg		82	47 - 120
Diethyl phthalate	3330	2890		ug/Kg		87	46 - 122
Dimethyl phthalate	3330	2860		ug/Kg		86	48 - 122
Di-n-butyl phthalate	3330	2790		ug/Kg		84	43 - 128
Di-n-octyl phthalate	3330	2960		ug/Kg		89	47 - 133
Fluoranthene	3330	2720		ug/Kg		82	44 - 123
Fluorene	3330	2760		ug/Kg		83	48 - 123
Hexachlorobenzene	3330	2820		ug/Kg		85	52 - 125
Hexachlorobutadiene	3330	2490		ug/Kg		75	40 - 114
Hexachlorocyclopentadiene	3330	2090		ug/Kg		63	17 - 119
Hexachloroethane	3330	2430		ug/Kg		73	34 - 107
Indeno[1,2,3-cd]pyrene	3330	2900		ug/Kg		87	46 - 148
Isophorone	3330	2610		ug/Kg		78	38 - 119
Naphthalene	3330	2490		ug/Kg		75	42 - 115
Nitrobenzene	3330	2490		ug/Kg		75	38 - 116
N-Nitrosodi-n-propylamine	3330	2790		ug/Kg		84	31 - 124
N-Nitrosodiphenylamine	3330	2780		ug/Kg		83	48 - 130
Pentachlorophenol	6670	5810		ug/Kg		87	40 - 121
Phenanthrene	3330	2810		ug/Kg		84	51 - 122
Phenol	3330	2960		ug/Kg		89	42 - 133
Pyrene	3330	3020		ug/Kg		91	54 - 127
bis (2-chloroisopropyl) ether	3330	2580		ug/Kg		77	25 - 116
N-Nitrosodimethylamine	3330	1970		ug/Kg		59	28 - 107

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*42 - 113*
2-Fluorophenol (Surr)	*85*		*18 - 138*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-360680/2-A
Matrix: Solid
Analysis Batch: 361070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360680

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	*87*		*10 - 147*
Nitrobenzene-d5 (Surr)	*72*		*39 - 104*
Terphenyl-d14 (Surr)	*89*		*43 - 125*
Phenol-d6 (Surr)	*85*		*37 - 125*

Lab Sample ID: 440-160409-64 MS
Matrix: Solid
Analysis Batch: 361070

Client Sample ID: LT-Sewer-10
Prep Type: Total/NA
Prep Batch: 360680

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	ND		3340	2170		ug/Kg		65	35 - 120
1,4-Dichlorobenzene	ND		3340	2240		ug/Kg		67	35 - 120
2,4,5-Trichlorophenol	ND		3340	2670		ug/Kg		80	45 - 120
2,4,6-Trichlorophenol	ND		3340	2580		ug/Kg		77	45 - 120
2,4-Dichlorophenol	ND		3340	2750		ug/Kg		83	45 - 120
2,4-Dimethylphenol	ND		3340	2430		ug/Kg		73	30 - 120
2,4-Dinitrophenol	ND		6670	2730		ug/Kg		41	20 - 120
2,4-Dinitrotoluene	ND		3340	2590		ug/Kg		78	50 - 125
2,6-Dinitrotoluene	ND		3340	2650		ug/Kg		80	50 - 125
2-Chloronaphthalene	ND		3340	2540		ug/Kg		76	45 - 120
2-Chlorophenol	ND		3340	2730		ug/Kg		82	40 - 120
2-Methylnaphthalene	ND		3340	2550		ug/Kg		76	40 - 120
2-Methylphenol	ND		3340	2900		ug/Kg		87	40 - 120
2-Nitroaniline	ND		3340	2670		ug/Kg		80	45 - 120
2-Nitrophenol	ND		3340	2350		ug/Kg		71	40 - 120
3,3'-Dichlorobenzidine	ND		3340	2310		ug/Kg		69	20 - 130
3-Nitroaniline	ND		3340	2390		ug/Kg		72	30 - 120
4,6-Dinitro-2-methylphenol	ND		6670	4540		ug/Kg		68	35 - 120
4-Bromophenyl phenyl ether	ND		3340	2730		ug/Kg		82	45 - 120
4-Chloro-3-methylphenol	ND		3340	2900		ug/Kg		87	50 - 125
4-Chloroaniline	ND		3340	2490		ug/Kg		75	20 - 120
4-Chlorophenyl phenyl ether	ND		3340	2600		ug/Kg		78	50 - 120
3-Methylphenol + 4-Methylphenol	ND		3340	3000		ug/Kg		90	50 - 120
4-Nitroaniline	ND		3340	2210		ug/Kg		66	40 - 125
4-Nitrophenol	ND		6670	4880		ug/Kg		73	35 - 125
Acenaphthene	ND		3340	2450		ug/Kg		73	45 - 120
Acenaphthylene	ND		3340	2470		ug/Kg		74	45 - 120
Aniline	ND		3340	1520		ug/Kg		46	25 - 120
Anthracene	ND		3340	2650		ug/Kg		79	55 - 120
Benzidine	ND	F1	3340	ND	F1	ug/Kg		0	20 - 120
Benzo[a]anthracene	ND		3340	2610		ug/Kg		78	50 - 120
Benzo[a]pyrene	ND		3340	2540		ug/Kg		76	45 - 125
Benzo[b]fluoranthene	ND		3340	2700		ug/Kg		81	45 - 125
Benzo[g,h,i]perylene	ND		3340	2570		ug/Kg		77	25 - 130
Benzo[k]fluoranthene	ND		3340	2810		ug/Kg		84	45 - 125
Benzoic acid	ND		3340	1100		ug/Kg		33	20 - 120
Benzyl alcohol	ND		3340	2600		ug/Kg		78	20 - 120
Bis(2-chloroethoxy)methane	ND		3340	2370		ug/Kg		71	45 - 120

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-160409-64 MS
Matrix: Solid
Analysis Batch: 361070

Client Sample ID: LT-Sewer-10
Prep Type: Total/NA
Prep Batch: 360680

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroethyl)ether	ND		3340	2410		ug/Kg		72	35 - 110
Bis(2-ethylhexyl) phthalate	ND		3340	2690		ug/Kg		81	45 - 130
Butyl benzyl phthalate	ND		3340	2640		ug/Kg		79	45 - 125
Chrysene	ND		3340	2650		ug/Kg		79	55 - 120
Dibenz(a,h)anthracene	ND		3340	2540		ug/Kg		76	25 - 135
Dibenzofuran	ND		3340	2560		ug/Kg		77	50 - 120
Diethyl phthalate	ND		3340	2550		ug/Kg		76	50 - 125
Dimethyl phthalate	ND		3340	2570		ug/Kg		77	45 - 125
Di-n-butyl phthalate	ND		3340	2680		ug/Kg		80	50 - 125
Di-n-octyl phthalate	ND		3340	2810		ug/Kg		84	50 - 135
Fluoranthene	ND		3340	2470		ug/Kg		74	45 - 120
Fluorene	ND		3340	2550		ug/Kg		76	50 - 120
Hexachlorobenzene	ND		3340	2800		ug/Kg		84	50 - 120
Hexachlorobutadiene	ND		3340	2300		ug/Kg		69	40 - 120
Hexachlorocyclopentadiene	ND		3340	1830		ug/Kg		55	20 - 125
Hexachloroethane	ND		3340	2370		ug/Kg		71	35 - 120
Indeno[1,2,3-cd]pyrene	ND		3340	2840		ug/Kg		85	20 - 130
Isophorone	ND		3340	2330		ug/Kg		70	40 - 120
Naphthalene	ND		3340	2380		ug/Kg		71	40 - 120
Nitrobenzene	ND		3340	2270		ug/Kg		68	40 - 120
N-Nitrosodi-n-propylamine	ND		3340	2630		ug/Kg		79	35 - 120
N-Nitrosodiphenylamine	ND		3340	2750		ug/Kg		82	45 - 125
Pentachlorophenol	ND		6670	4620		ug/Kg		69	30 - 120
Phenanthrene	ND		3340	2650		ug/Kg		80	50 - 120
Phenol	ND		3340	2890		ug/Kg		87	40 - 120
Pyrene	ND		3340	2700		ug/Kg		81	40 - 125
bis (2-chloroisopropyl) ether	ND		3340	2470		ug/Kg		74	40 - 120
N-Nitrosodimethylamine	ND		3340	1700		ug/Kg		51	25 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*71*		*42 - 113*
2-Fluorophenol (Surr)	*78*		*18 - 138*
2,4,6-Tribromophenol (Surr)	*81*		*10 - 147*
Nitrobenzene-d5 (Surr)	*66*		*39 - 104*
Terphenyl-d14 (Surr)	*81*		*43 - 125*
Phenol-d6 (Surr)	*86*		*37 - 125*

Lab Sample ID: 440-160409-64 MSD
Matrix: Solid
Analysis Batch: 361070

Client Sample ID: LT-Sewer-10
Prep Type: Total/NA
Prep Batch: 360680

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3-Dichlorobenzene	ND		3260	2260		ug/Kg		69	35 - 120	4	25
1,4-Dichlorobenzene	ND		3260	2310		ug/Kg		71	35 - 120	3	25
2,4,5-Trichlorophenol	ND		3260	2730		ug/Kg		84	45 - 120	2	20
2,4,6-Trichlorophenol	ND		3260	2650		ug/Kg		81	45 - 120	3	25
2,4-Dichlorophenol	ND		3260	2690		ug/Kg		83	45 - 120	2	25
2,4-Dimethylphenol	ND		3260	2450		ug/Kg		75	30 - 120	1	25

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-160409-64 MSD
Matrix: Solid
Analysis Batch: 361070

Client Sample ID: LT-Sewer-10
Prep Type: Total/NA
Prep Batch: 360680

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dinitrophenol	ND		6530	2820		ug/Kg		43	20 - 120	3	25
2,4-Dinitrotoluene	ND		3260	2720		ug/Kg		83	50 - 125	5	25
2,6-Dinitrotoluene	ND		3260	2700		ug/Kg		83	50 - 125	2	20
2-Chloronaphthalene	ND		3260	2630		ug/Kg		81	45 - 120	3	20
2-Chlorophenol	ND		3260	2730		ug/Kg		84	40 - 120	0	20
2-Methylnaphthalene	ND		3260	2610		ug/Kg		80	40 - 120	2	20
2-Methylphenol	ND		3260	2710		ug/Kg		83	40 - 120	7	25
2-Nitroaniline	ND		3260	2780		ug/Kg		85	45 - 120	4	25
2-Nitrophenol	ND		3260	2400		ug/Kg		73	40 - 120	2	25
3,3'-Dichlorobenzidine	ND		3260	2370		ug/Kg		73	20 - 130	3	25
3-Nitroaniline	ND		3260	2460		ug/Kg		75	30 - 120	3	25
4,6-Dinitro-2-methylphenol	ND		6530	4300		ug/Kg		66	35 - 120	5	25
4-Bromophenyl phenyl ether	ND		3260	2830		ug/Kg		87	45 - 120	4	20
4-Chloro-3-methylphenol	ND		3260	2800		ug/Kg		86	50 - 125	4	25
4-Chloroaniline	ND		3260	2530		ug/Kg		78	20 - 120	2	30
4-Chlorophenyl phenyl ether	ND		3260	2680		ug/Kg		82	50 - 120	3	25
3-Methylphenol + 4-Methylphenol	ND		3260	2900		ug/Kg		89	50 - 120	3	25
4-Nitroaniline	ND		3260	2370		ug/Kg		72	40 - 125	7	30
4-Nitrophenol	ND		6530	4910		ug/Kg		75	35 - 125	1	30
Acenaphthene	ND		3260	2550		ug/Kg		78	45 - 120	4	25
Acenaphthylene	ND		3260	2540		ug/Kg		78	45 - 120	2	20
Aniline	ND		3260	1480		ug/Kg		45	25 - 120	3	30
Anthracene	ND		3260	2720		ug/Kg		83	55 - 120	3	25
Benzidine	ND	F1	3260	ND	F1	ug/Kg		0	20 - 120	NC	30
Benzo[a]anthracene	ND		3260	2600		ug/Kg		80	50 - 120	0	25
Benzo[a]pyrene	ND		3260	2550		ug/Kg		78	45 - 125	0	25
Benzo[b]fluoranthene	ND		3260	2720		ug/Kg		83	45 - 125	0	30
Benzo[g,h,i]perylene	ND		3260	2620		ug/Kg		80	25 - 130	2	30
Benzo[k]fluoranthene	ND		3260	2790		ug/Kg		85	45 - 125	1	30
Benzoic acid	ND		3260	1140		ug/Kg		35	20 - 120	3	30
Benzyl alcohol	ND		3260	2340		ug/Kg		72	20 - 120	10	30
Bis(2-chloroethoxy)methane	ND		3260	2370		ug/Kg		73	45 - 120	0	25
Bis(2-chloroethyl)ether	ND		3260	2520		ug/Kg		77	35 - 110	5	25
Bis(2-ethylhexyl) phthalate	ND		3260	2710		ug/Kg		83	45 - 130	1	25
Butyl benzyl phthalate	ND		3260	2690		ug/Kg		82	45 - 125	2	25
Chrysene	ND		3260	2670		ug/Kg		82	55 - 120	1	25
Dibenz(a,h)anthracene	ND		3260	2650		ug/Kg		81	25 - 135	4	30
Dibenzofuran	ND		3260	2630		ug/Kg		81	50 - 120	3	25
Diethyl phthalate	ND		3260	2670		ug/Kg		82	50 - 125	5	25
Dimethyl phthalate	ND		3260	2650		ug/Kg		81	45 - 125	3	25
Di-n-butyl phthalate	ND		3260	2670		ug/Kg		82	50 - 125	0	25
Di-n-octyl phthalate	ND		3260	2800		ug/Kg		86	50 - 135	0	25
Fluoranthene	ND		3260	2550		ug/Kg		78	45 - 120	3	25
Fluorene	ND		3260	2640		ug/Kg		81	50 - 120	4	25
Hexachlorobenzene	ND		3260	2780		ug/Kg		85	50 - 120	1	25
Hexachlorobutadiene	ND		3260	2400		ug/Kg		73	40 - 120	4	25
Hexachlorocyclopentadiene	ND		3260	1840		ug/Kg		56	20 - 125	0	30
Hexachloroethane	ND		3260	2300		ug/Kg		70	35 - 120	3	30

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-160409-64 MSD
Matrix: Solid
Analysis Batch: 361070

Client Sample ID: LT-Sewer-10
Prep Type: Total/NA
Prep Batch: 360680

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Indeno[1,2,3-cd]pyrene	ND		3260	2550		ug/Kg		78	20 - 130	11	30
Isophorone	ND		3260	2320		ug/Kg		71	40 - 120	0	25
Naphthalene	ND		3260	2420		ug/Kg		74	40 - 120	2	25
Nitrobenzene	ND		3260	2330		ug/Kg		71	40 - 120	3	25
N-Nitrosodi-n-propylamine	ND		3260	2560		ug/Kg		78	35 - 120	3	25
N-Nitrosodiphenylamine	ND		3260	2780		ug/Kg		85	45 - 125	1	25
Pentachlorophenol	ND		6530	4930		ug/Kg		75	30 - 120	6	25
Phenanthrene	ND		3260	2750		ug/Kg		84	50 - 120	4	25
Phenol	ND		3260	2780		ug/Kg		85	40 - 120	4	25
Pyrene	ND		3260	2740		ug/Kg		84	40 - 125	2	30
bis (2-chloroisopropyl) ether	ND		3260	2450		ug/Kg		75	40 - 120	1	25
N-Nitrosodimethylamine	ND		3260	1840		ug/Kg		56	25 - 125	8	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*42 - 113*
2-Fluorophenol (Surr)	*82*		*18 - 138*
2,4,6-Tribromophenol (Surr)	*84*		*10 - 147*
Nitrobenzene-d5 (Surr)	*71*		*39 - 104*
Terphenyl-d14 (Surr)	*85*		*43 - 125*
Phenol-d6 (Surr)	*85*		*37 - 125*

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 440-361001/5
Matrix: Solid
Analysis Batch: 361001

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			10/08/16 10:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*65 - 140*		*10/08/16 10:41*	*1*

Lab Sample ID: LCS 440-361001/3
Matrix: Solid
Analysis Batch: 361001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			1600	1570		ug/Kg		98	70 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*65 - 140*

Method: 8015B - Gasoline Range Organics - (GC) (Continued)

Lab Sample ID: LCSD 440-361001/4
Matrix: Solid
Analysis Batch: 361001

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			1600	1550		ug/Kg		97	70 - 135	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*65 - 140*

Lab Sample ID: 440-160205-A-1 MS
Matrix: Solid
Analysis Batch: 361001

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)	ND		1590	1470		ug/Kg		93	60 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*65 - 140*

Lab Sample ID: 440-160205-A-1 MSD
Matrix: Solid
Analysis Batch: 361001

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	ND		1590	1510		ug/Kg		95	60 - 140	2	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*65 - 140*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-360631/1-A
Matrix: Solid
Analysis Batch: 360534

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360631

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/06/16 16:40	10/07/16 11:42	1
C23-C40	ND		5.0		mg/Kg		10/06/16 16:40	10/07/16 11:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*70*		*40 - 140*	*10/06/16 16:40*	*10/07/16 11:42*	*1*

Lab Sample ID: LCS 440-360631/2-A
Matrix: Solid
Analysis Batch: 360534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360631

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28			66.7	44.2		mg/Kg		66	45 - 115		

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 440-360631/2-A
Matrix: Solid
Analysis Batch: 360534

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360631

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane	58		40 - 140

Lab Sample ID: 440-160723-A-21-B MS
Matrix: Solid
Analysis Batch: 360534

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 360631

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
C10-C28	94	F1	139	104	F1	mg/Kg		7	40 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
n-Octacosane	39	X	40 - 140

Lab Sample ID: 440-160723-A-21-C MSD
Matrix: Solid
Analysis Batch: 360534

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 360631

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	94	F1	137	117	F1	mg/Kg		17	40 - 120	12	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
n-Octacosane	43		40 - 140

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 440-360061/1-A
Matrix: Solid
Analysis Batch: 360203

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360061

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		50		ug/Kg		10/04/16 17:00	10/05/16 13:44	1
Aroclor 1221	ND		50		ug/Kg		10/04/16 17:00	10/05/16 13:44	1
Aroclor 1232	ND		50		ug/Kg		10/04/16 17:00	10/05/16 13:44	1
Aroclor 1242	ND		50		ug/Kg		10/04/16 17:00	10/05/16 13:44	1
Aroclor 1248	ND		50		ug/Kg		10/04/16 17:00	10/05/16 13:44	1
Aroclor 1254	ND		50		ug/Kg		10/04/16 17:00	10/05/16 13:44	1
Aroclor 1260	ND		50		ug/Kg		10/04/16 17:00	10/05/16 13:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	107		45 - 120	10/04/16 17:00	10/05/16 13:44	1

Lab Sample ID: LCS 440-360061/2-A
Matrix: Solid
Analysis Batch: 360203

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360061

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016			267	308	*	ug/Kg		116	65 - 115
Aroclor 1260			267	286		ug/Kg		107	65 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	109		45 - 120

Lab Sample ID: 440-160409-61 MS
Matrix: Solid
Analysis Batch: 360203

Client Sample ID: LT-XF7-0.5
Prep Type: Total/NA
Prep Batch: 360061

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		266	179		ug/Kg		67	50 - 120
Aroclor 1260	ND	F1	266	131	F1	ug/Kg		49	50 - 125

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	47		45 - 120

Lab Sample ID: 440-160409-61 MSD
Matrix: Solid
Analysis Batch: 360203

Client Sample ID: LT-XF7-0.5
Prep Type: Total/NA
Prep Batch: 360061

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		266	173		ug/Kg		65	50 - 120	3	30
Aroclor 1260	ND	F1	266	126	F1	ug/Kg		48	50 - 125	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	45		45 - 120

Lab Sample ID: MB 440-360624/1-A
Matrix: Solid
Analysis Batch: 360865

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360624

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1221	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1232	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1242	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1248	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1254	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1260	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	78		45 - 120	10/06/16 15:31	10/07/16 15:22	1

Lab Sample ID: LCS 440-360624/5-A
Matrix: Solid
Analysis Batch: 360865

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360624

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016			267	217		ug/Kg		81	65 - 115
Aroclor 1260			267	224		ug/Kg		84	65 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	76		45 - 120

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 440-160659-B-2-B MS
Matrix: Solid
Analysis Batch: 360865

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 360624

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	ND		266	224		ug/Kg		84	50 - 120
Aroclor 1260	ND		266	227		ug/Kg		85	50 - 125

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*73*		*45 - 120*

Lab Sample ID: 440-160659-B-2-C MSD
Matrix: Solid
Analysis Batch: 360865

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 360624

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		266	218		ug/Kg		82	50 - 120	3	30
Aroclor 1260	ND		266	228		ug/Kg		86	50 - 125	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*73*		*45 - 120*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-360262/1-A ^5
Matrix: Solid
Analysis Batch: 361695

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360262

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Arsenic	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Barium	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Beryllium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Cadmium	ND		0.50		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Chromium	ND		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Cobalt	ND		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Copper	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Lead	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Molybdenum	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Nickel	ND		2.0		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Selenium	ND		3.0		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Thallium	ND		10		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Vanadium	ND		1.0		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Zinc	ND		5.0		mg/Kg		10/05/16 12:11	10/12/16 00:21	5
Silver	ND		1.5		mg/Kg		10/05/16 12:11	10/12/16 00:21	5

Lab Sample ID: LCS 440-360262/2-A ^5
Matrix: Solid
Analysis Batch: 361695

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360262

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony			49.3	44.2		mg/Kg		90	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-360262/2-A ^5
Matrix: Solid
Analysis Batch: 361695

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360262

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	49.3	43.4		mg/Kg		88	80 - 120
Barium	49.3	45.5		mg/Kg		92	80 - 120
Beryllium	49.3	42.6		mg/Kg		86	80 - 120
Cadmium	49.3	43.4		mg/Kg		88	80 - 120
Chromium	49.3	47.5		mg/Kg		96	80 - 120
Cobalt	49.3	45.9		mg/Kg		93	80 - 120
Copper	49.3	44.7		mg/Kg		91	80 - 120
Lead	49.3	44.9		mg/Kg		91	80 - 120
Molybdenum	49.3	46.0		mg/Kg		93	80 - 120
Nickel	49.3	46.9		mg/Kg		95	80 - 120
Selenium	49.3	40.4		mg/Kg		82	80 - 120
Thallium	49.3	46.1		mg/Kg		94	80 - 120
Vanadium	49.3	45.6		mg/Kg		93	80 - 120
Zinc	49.3	41.6		mg/Kg		84	80 - 120
Silver	24.6	21.9		mg/Kg		89	80 - 120

Lab Sample ID: 440-160409-1 MS
Matrix: Solid
Analysis Batch: 361695

Client Sample ID: LT-5-1
Prep Type: Total/NA
Prep Batch: 360262

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	F1	49.5	36.5	F1	mg/Kg		74	75 - 125
Arsenic	ND		49.5	48.4		mg/Kg		93	75 - 125
Barium	31		49.5	82.5		mg/Kg		104	75 - 125
Beryllium	ND		49.5	45.3		mg/Kg		92	75 - 125
Cadmium	ND		49.5	44.8		mg/Kg		91	75 - 125
Chromium	11		49.5	60.8		mg/Kg		101	75 - 125
Cobalt	2.6		49.5	51.1		mg/Kg		98	75 - 125
Copper	6.2		49.5	52.9		mg/Kg		94	75 - 125
Lead	3.1		49.5	48.7		mg/Kg		92	75 - 125
Molybdenum	ND		49.5	46.9		mg/Kg		95	75 - 125
Nickel	7.6		49.5	54.4		mg/Kg		95	75 - 125
Selenium	ND		49.5	44.5		mg/Kg		90	75 - 125
Thallium	ND		49.5	50.9		mg/Kg		103	75 - 125
Vanadium	25		49.5	74.1		mg/Kg		99	75 - 125
Zinc	19		49.5	61.9		mg/Kg		87	75 - 125
Silver	ND		24.8	22.5		mg/Kg		91	75 - 125

Lab Sample ID: 440-160409-1 MSD
Matrix: Solid
Analysis Batch: 361695

Client Sample ID: LT-5-1
Prep Type: Total/NA
Prep Batch: 360262

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	F1	49.3	37.4		mg/Kg		76	75 - 125	2	20
Arsenic	ND		49.3	49.9		mg/Kg		96	75 - 125	3	20
Barium	31		49.3	86.6		mg/Kg		112	75 - 125	5	20
Beryllium	ND		49.3	47.2		mg/Kg		96	75 - 125	4	20
Cadmium	ND		49.3	45.9		mg/Kg		93	75 - 125	2	20
Chromium	11		49.3	63.7		mg/Kg		107	75 - 125	5	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-160409-1 MSD — **Client Sample ID: LT-5-1**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 361695 — **Prep Batch: 360262**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	2.6		49.3	52.8		mg/Kg		102	75 - 125	3	20
Copper	6.2		49.3	55.1		mg/Kg		99	75 - 125	4	20
Lead	3.1		49.3	50.8		mg/Kg		97	75 - 125	4	20
Molybdenum	ND		49.3	49.0		mg/Kg		99	75 - 125	4	20
Nickel	7.6		49.3	56.8		mg/Kg		100	75 - 125	4	20
Selenium	ND		49.3	44.0		mg/Kg		89	75 - 125	1	20
Thallium	ND		49.3	52.8		mg/Kg		107	75 - 125	4	20
Vanadium	25		49.3	79.2		mg/Kg		110	75 - 125	7	20
Zinc	19		49.3	65.1		mg/Kg		93	75 - 125	5	20
Silver	ND		24.6	23.5		mg/Kg		96	75 - 125	4	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-360673/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 361262 — **Prep Batch: 360673**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/06/16 20:16	10/07/16 16:33	1

Lab Sample ID: LCS 440-360673/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 361262 — **Prep Batch: 360673**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.800	0.812		mg/Kg		101	80 - 120		

Lab Sample ID: 440-160408-A-1-C MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 361262 — **Prep Batch: 360673**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.11		0.784	0.796		mg/Kg		87	70 - 130		

Lab Sample ID: 440-160408-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 361262 — **Prep Batch: 360673**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.11		0.800	0.768		mg/Kg		82	70 - 130	4	20

Lab Sample ID: MB 440-360674/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 361280 — **Prep Batch: 360674**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/06/16 20:19	10/07/16 17:34	1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 440-360674/2-A
Matrix: Solid
Analysis Batch: 361280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360674

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.800	0.864		mg/Kg		108	80 - 120		

Lab Sample ID: 440-160409-37 MS
Matrix: Solid
Analysis Batch: 361280

Client Sample ID: LT-SBermA-(Composite)
Prep Type: Total/NA
Prep Batch: 360674

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.035		0.784	0.931		mg/Kg		114	70 - 130		

Lab Sample ID: 440-160409-37 MSD
Matrix: Solid
Analysis Batch: 361280

Client Sample ID: LT-SBermA-(Composite)
Prep Type: Total/NA
Prep Batch: 360674

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.035		0.784	0.935		mg/Kg		115	70 - 130	0	20

Lab Sample ID: MB 440-361291/1-A
Matrix: Solid
Analysis Batch: 361457

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 361291

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/10/16 15:54	10/11/16 01:15	1

Lab Sample ID: LCS 440-361291/2-A
Matrix: Solid
Analysis Batch: 361457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 361291

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.800	0.828		mg/Kg		103	80 - 120		

Lab Sample ID: 440-160987-A-4-Q MS
Matrix: Solid
Analysis Batch: 361457

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 361291

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.18		0.784	1.09		mg/Kg		117	70 - 130		

Lab Sample ID: 440-160987-A-4-R MSD
Matrix: Solid
Analysis Batch: 361457

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 361291

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.18		0.784	1.09		mg/Kg		116	70 - 130	0	20

GC/MS VOA

Analysis Batch: 360130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-64	LT-Sewer-10	Total/NA	Solid	8260B	
MB 440-360130/8	Method Blank	Total/NA	Solid	8260B	
LCS 440-360130/9	Lab Control Sample	Total/NA	Solid	8260B	
440-160075-A-29 MS	Matrix Spike	Total/NA	Solid	8260B	
440-160075-A-29 MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 360680

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-64	LT-Sewer-10	Total/NA	Solid	3546	
MB 440-360680/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-360680/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-160409-64 MS	LT-Sewer-10	Total/NA	Solid	3546	
440-160409-64 MSD	LT-Sewer-10	Total/NA	Solid	3546	

Analysis Batch: 361070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-64	LT-Sewer-10	Total/NA	Solid	8270C	360680
MB 440-360680/1-A	Method Blank	Total/NA	Solid	8270C	360680
LCS 440-360680/2-A	Lab Control Sample	Total/NA	Solid	8270C	360680
440-160409-64 MS	LT-Sewer-10	Total/NA	Solid	8270C	360680
440-160409-64 MSD	LT-Sewer-10	Total/NA	Solid	8270C	360680

GC VOA

Analysis Batch: 361001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-64	LT-Sewer-10	Total/NA	Solid	8015B	
440-160409-73	LT-45-(Composite)	Total/NA	Solid	8015B	
MB 440-361001/5	Method Blank	Total/NA	Solid	8015B	
LCS 440-361001/3	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 440-361001/4	Lab Control Sample Dup	Total/NA	Solid	8015B	
440-160205-A-1 MS	Matrix Spike	Total/NA	Solid	8015B	
440-160205-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	

GC Semi VOA

Prep Batch: 360061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-43	LT-XF1-0.5	Total/NA	Solid	3546	
440-160409-44	LT-XF2-0.5	Total/NA	Solid	3546	
440-160409-45	LT-XF3-0.5	Total/NA	Solid	3546	
440-160409-58	LT-XF4-0.5	Total/NA	Solid	3546	
440-160409-59	LT-XF6-0.5	Total/NA	Solid	3546	
440-160409-60	LT-XF5-0.5	Total/NA	Solid	3546	
440-160409-61	LT-XF7-0.5	Total/NA	Solid	3546	
440-160409-64	LT-Sewer-10	Total/NA	Solid	3546	
MB 440-360061/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-360061/2-A	Lab Control Sample	Total/NA	Solid	3546	

GC Semi VOA (Continued)

Prep Batch: 360061 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-61 MS	LT-XF7-0.5	Total/NA	Solid	3546	
440-160409-61 MSD	LT-XF7-0.5	Total/NA	Solid	3546	

Analysis Batch: 360203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-43	LT-XF1-0.5	Total/NA	Solid	8082	360061
440-160409-44	LT-XF2-0.5	Total/NA	Solid	8082	360061
440-160409-45	LT-XF3-0.5	Total/NA	Solid	8082	360061
440-160409-58	LT-XF4-0.5	Total/NA	Solid	8082	360061
440-160409-59	LT-XF6-0.5	Total/NA	Solid	8082	360061
440-160409-60	LT-XF5-0.5	Total/NA	Solid	8082	360061
440-160409-61	LT-XF7-0.5	Total/NA	Solid	8082	360061
440-160409-64	LT-Sewer-10	Total/NA	Solid	8082	360061
MB 440-360061/1-A	Method Blank	Total/NA	Solid	8082	360061
LCS 440-360061/2-A	Lab Control Sample	Total/NA	Solid	8082	360061
440-160409-61 MS	LT-XF7-0.5	Total/NA	Solid	8082	360061
440-160409-61 MSD	LT-XF7-0.5	Total/NA	Solid	8082	360061

Analysis Batch: 360534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-360631/1-A	Method Blank	Total/NA	Solid	8015B	360631
LCS 440-360631/2-A	Lab Control Sample	Total/NA	Solid	8015B	360631
440-160723-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B	360631
440-160723-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	360631

Prep Batch: 360624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-62	LT-XF8-0.5	Total/NA	Solid	3546	
MB 440-360624/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-360624/5-A	Lab Control Sample	Total/NA	Solid	3546	
440-160659-B-2-B MS	Matrix Spike	Total/NA	Solid	3546	
440-160659-B-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Prep Batch: 360631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-64	LT-Sewer-10	Total/NA	Solid	3546	
440-160409-73	LT-45-(Composite)	Total/NA	Solid	3546	
MB 440-360631/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-360631/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-160723-A-21-B MS	Matrix Spike	Total/NA	Solid	3546	
440-160723-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 360865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-62	LT-XF8-0.5	Total/NA	Solid	8082	360624
MB 440-360624/1-A	Method Blank	Total/NA	Solid	8082	360624
LCS 440-360624/5-A	Lab Control Sample	Total/NA	Solid	8082	360624
440-160659-B-2-B MS	Matrix Spike	Total/NA	Solid	8082	360624
440-160659-B-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8082	360624

GC Semi VOA (Continued)

Analysis Batch: 360899

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-64	LT-Sewer-10	Total/NA	Solid	8015B	360631

Analysis Batch: 361148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-73	LT-45-(Composite)	Total/NA	Solid	8015B	360631

Metals

Prep Batch: 360262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-1	LT-5-1	Total/NA	Solid	3050B	
440-160409-5	LT-6-(Composite)	Total/NA	Solid	3050B	
440-160409-15	LT-MW1B-(Composite)	Total/NA	Solid	3050B	
440-160409-21	LT-MW1C-(Composite)	Total/NA	Solid	3050B	
440-160409-26	LT-EBermC-(Composite)	Total/NA	Solid	3050B	
440-160409-31	LT-EBermD-(Composite)	Total/NA	Solid	3050B	
440-160409-37	LT-SBermA-(Composite)	Total/NA	Solid	3050B	
440-160409-42	LT-SBermB-(Composite)	Total/NA	Solid	3050B	
440-160409-49	LT-NBermA-(Composite)	Total/NA	Solid	3050B	
440-160409-50	LT-NBermA-18	Total/NA	Solid	3050B	
440-160409-53	LT-NBermB-(Composite)	Total/NA	Solid	3050B	
440-160409-57	LT-NBermB-(Composite)	Total/NA	Solid	3050B	
440-160409-64	LT-Sewer-10	Total/NA	Solid	3050B	
440-160409-70	LT-CBermA-(Composite)	Total/NA	Solid	3050B	
440-160409-72	LT-10-(Composite)	Total/NA	Solid	3050B	
440-160409-73	LT-45-(Composite)	Total/NA	Solid	3050B	
440-160409-74	LT-47-(Composite)	Total/NA	Solid	3050B	
MB 440-360262/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 440-360262/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
440-160409-1 MS	LT-5-1	Total/NA	Solid	3050B	
440-160409-1 MSD	LT-5-1	Total/NA	Solid	3050B	

Prep Batch: 360673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-1	LT-5-1	Total/NA	Solid	7471A	
440-160409-5	LT-6-(Composite)	Total/NA	Solid	7471A	
440-160409-15	LT-MW1B-(Composite)	Total/NA	Solid	7471A	
440-160409-21	LT-MW1C-(Composite)	Total/NA	Solid	7471A	
440-160409-26	LT-EBermC-(Composite)	Total/NA	Solid	7471A	
440-160409-31	LT-EBermD-(Composite)	Total/NA	Solid	7471A	
MB 440-360673/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-360673/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-160408-A-1-C MS	Matrix Spike	Total/NA	Solid	7471A	
440-160408-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Prep Batch: 360674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-37	LT-SBermA-(Composite)	Total/NA	Solid	7471A	
440-160409-42	LT-SBermB-(Composite)	Total/NA	Solid	7471A	
440-160409-53	LT-NBermB-(Composite)	Total/NA	Solid	7471A	

Metals (Continued)

Prep Batch: 360674 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-57	LT-NBermB-(Composite)	Total/NA	Solid	7471A	
440-160409-70	LT-CBermA-(Composite)	Total/NA	Solid	7471A	
440-160409-72	LT-10-(Composite)	Total/NA	Solid	7471A	
440-160409-74	LT-47-(Composite)	Total/NA	Solid	7471A	
MB 440-360674/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-360674/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-160409-37 MS	LT-SBermA-(Composite)	Total/NA	Solid	7471A	
440-160409-37 MSD	LT-SBermA-(Composite)	Total/NA	Solid	7471A	

Analysis Batch: 361262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-1	LT-5-1	Total/NA	Solid	7471A	360673
440-160409-5	LT-6-(Composite)	Total/NA	Solid	7471A	360673
440-160409-15	LT-MW1B-(Composite)	Total/NA	Solid	7471A	360673
440-160409-21	LT-MW1C-(Composite)	Total/NA	Solid	7471A	360673
440-160409-26	LT-EBermC-(Composite)	Total/NA	Solid	7471A	360673
440-160409-31	LT-EBermD-(Composite)	Total/NA	Solid	7471A	360673
MB 440-360673/1-A	Method Blank	Total/NA	Solid	7471A	360673
LCS 440-360673/2-A	Lab Control Sample	Total/NA	Solid	7471A	360673
440-160408-A-1-C MS	Matrix Spike	Total/NA	Solid	7471A	360673
440-160408-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	360673

Analysis Batch: 361280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-37	LT-SBermA-(Composite)	Total/NA	Solid	7471A	360674
440-160409-42	LT-SBermB-(Composite)	Total/NA	Solid	7471A	360674
440-160409-53	LT-NBermB-(Composite)	Total/NA	Solid	7471A	360674
440-160409-57	LT-NBermB-(Composite)	Total/NA	Solid	7471A	360674
440-160409-70	LT-CBermA-(Composite)	Total/NA	Solid	7471A	360674
440-160409-72	LT-10-(Composite)	Total/NA	Solid	7471A	360674
440-160409-74	LT-47-(Composite)	Total/NA	Solid	7471A	360674
MB 440-360674/1-A	Method Blank	Total/NA	Solid	7471A	360674
LCS 440-360674/2-A	Lab Control Sample	Total/NA	Solid	7471A	360674
440-160409-37 MS	LT-SBermA-(Composite)	Total/NA	Solid	7471A	360674
440-160409-37 MSD	LT-SBermA-(Composite)	Total/NA	Solid	7471A	360674

Prep Batch: 361291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-49	LT-NBermA-(Composite)	Total/NA	Solid	7471A	
440-160409-50	LT-NBermA-18	Total/NA	Solid	7471A	
440-160409-64	LT-Sewer-10	Total/NA	Solid	7471A	
440-160409-73	LT-45-(Composite)	Total/NA	Solid	7471A	
MB 440-361291/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-361291/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-160987-A-4-Q MS	Matrix Spike	Total/NA	Solid	7471A	
440-160987-A-4-R MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Analysis Batch: 361457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-361291/1-A	Method Blank	Total/NA	Solid	7471A	361291
LCS 440-361291/2-A	Lab Control Sample	Total/NA	Solid	7471A	361291

Metals (Continued)

Analysis Batch: 361457 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160987-A-4-Q MS	Matrix Spike	Total/NA	Solid	7471A	361291
440-160987-A-4-R MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	361291

Analysis Batch: 361458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-49	LT-NBermA-(Composite)	Total/NA	Solid	7471A	361291
440-160409-50	LT-NBermA-18	Total/NA	Solid	7471A	361291
440-160409-64	LT-Sewer-10	Total/NA	Solid	7471A	361291
440-160409-73	LT-45-(Composite)	Total/NA	Solid	7471A	361291

Analysis Batch: 361695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-1	LT-5-1	Total/NA	Solid	6010B	360262
440-160409-5	LT-6-(Composite)	Total/NA	Solid	6010B	360262
440-160409-15	LT-MW1B-(Composite)	Total/NA	Solid	6010B	360262
440-160409-21	LT-MW1C-(Composite)	Total/NA	Solid	6010B	360262
440-160409-26	LT-EBermC-(Composite)	Total/NA	Solid	6010B	360262
440-160409-31	LT-EBermD-(Composite)	Total/NA	Solid	6010B	360262
440-160409-37	LT-SBermA-(Composite)	Total/NA	Solid	6010B	360262
440-160409-42	LT-SBermB-(Composite)	Total/NA	Solid	6010B	360262
440-160409-49	LT-NBermA-(Composite)	Total/NA	Solid	6010B	360262
440-160409-50	LT-NBermA-18	Total/NA	Solid	6010B	360262
440-160409-53	LT-NBermB-(Composite)	Total/NA	Solid	6010B	360262
440-160409-57	LT-NBermB-(Composite)	Total/NA	Solid	6010B	360262
440-160409-64	LT-Sewer-10	Total/NA	Solid	6010B	360262
440-160409-70	LT-CBermA-(Composite)	Total/NA	Solid	6010B	360262
440-160409-72	LT-10-(Composite)	Total/NA	Solid	6010B	360262
440-160409-73	LT-45-(Composite)	Total/NA	Solid	6010B	360262
MB 440-360262/1-A ^5	Method Blank	Total/NA	Solid	6010B	360262
LCS 440-360262/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	360262
440-160409-1 MS	LT-5-1	Total/NA	Solid	6010B	360262
440-160409-1 MSD	LT-5-1	Total/NA	Solid	6010B	360262

Analysis Batch: 361745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160409-74	LT-47-(Composite)	Total/NA	Solid	6010B	360262

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160409-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16 *
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 16-001r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Avenue
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Irvine, CA 92614-5843
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/03/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	1 of 5 COCs
32 Executive Park Drive	Analysis Turnaround Time			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-5-1	9/27/16	0950	G	S	1								HOLD
LT-5-15	9/27/16	0955	G	S	1								HOLD
LT-6-1	9/27/16	1015	G	S	1						X		COMPOSITE
LT-6-15	9/27/16	1020	G	S	1						X		
LT-10-1	9/27/16	1050	G	S	1								HOLD
LT-10-15	9/27/16	1055	G	S	1								HOLD
LT-45-1	9/27/16	1120	G	S	1								HOLD
LT-45-15	9/27/16	1130	G	S	1								HOLD
LT-MW1B-5	9/28/16	0850	G	S	1						X		COMPOSITE ALL 5
LT-MW1B-10	9/28/16	0852	G	S	1						X		LT-MW1B SAMPLES-
LT-MW1B-15	9/28/16	0855	G	S	1						X		INCLUDE LT-MW1B-25
LT-MW1B-20	9/28/16	0857	G	S	1						X		ON PG. 2 of 5

440-160409 Chain of Custody

OC 10/4/16 13:50

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

18.2 18.0 on ice

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 21.6 Corr'd: 21.2		Therm ID No.: IR-78
Relinquished by:	Company: Langan	Date/Time: 10/3/16 1640	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAL	Date/Time: 10/03/16 1648

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

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10/12/2016

TestAmerica Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614-5843
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/03/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	2 of 5 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-MW1B-25	9/28/16	0859	G	S	1						X		COMPOSITE W/LT-MW1B
LT-MW1C-5	9/28/16	0900	G	S	1						X		
LT-MW1C-10	9/28/16	0902	G	S	1						X		
LT-MW1C-15	9/28/16	0905	G	S	1						X		COMPOSITE
LT-MW1C-20	9/28/16	0910	G	S	1						X		
LT-MW1C-25	9/28/16	0912	G	S	1						X		
LT-EBermC-5	9/28/16	0950	G	S	1						X		
LT-EBermC-8	9/28/16	0952	G	S	1						X		COMPOSITE
LT-EBermC-13	9/28/16	0957	G	S	1						X		
LT-EBermC-17	9/28/16	1000	G	S	1						X		
LT-EBermD-3	9/28/16	1020	G	S	1						X		COMPOSITE W/ALL 4
LT-EBermD-6	9/28/16	1022	G	S	1						X		LT-EBermD SAMPLES

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

182 / 180° on ice

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 21.6 Corr'd: 21.2 Therm ID No.: IR-78		
Relinquished by:	Company: Langan	Date/Time: 10/3/16 1640	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 10/03/16 16:40

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/03/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	3 of 5 COCs
32 Executive Park Drive	Analysis Turnaround Time			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-EBermD-11	9/28/16	1025	G	S	1						X		COMPOSITE W/ALL 4
LT-EBermD-14	9/28/16	1027	G	S	1						X		LT-EBermD SAMPLES
LT-SBermA-1	9/28/16	1125	G	S	1						X		
LT-SBermA-3	9/28/16	1128	G	S	1						X		
LT-SBermA-7	9/28/16	1131	G	S	1						X		COMPOSITE
LT-SBermA-12	9/28/16	1140	G	S	1						X		
LT-SBermA-18	9/28/16	1142	G	S	1						X		
LT-SBermB-5	9/28/16	1200	G	S	1						X		
LT-SBermB-9	9/28/16	1205	G	S	1						X		COMPOSITE
LT-SBermB-12	9/28/16	1210	G	S	1						X		
LT-SBermB-18	9/28/16	1215	G	S	1						X		
LT-XF1-0.5	9/28/16	1250	G	S	1							X	

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

18.2 / 18.0 on ice

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 21.6 Corr'd: 21.3		Therm ID No.: 12-18
Relinquished by:	Company: Langan	Date/Time: 10/3/16 1640	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 10/03/16 16:40

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/03/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	4 of 5 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-XF2-0.5	9/28/16	1308	G	S	1							X	
LT-XF3-0.5	9/28/16	1317	G	S	1							X	
LT-NBermA-3	9/28/16	1340	G	S	1						X		COMPOSITE
LT-NBermA-6	9/28/16	1344	G	S	1						X		
LT-NBermA-10	9/28/16	1349	G	S	1						X		
LT-NBermA-18	9/28/16	1355	G	S	1						X		
LT-NBermB-4	9/28/16	1359	G	S	1						X		COMPOSITE
LT-NBermB-7	9/28/16	1400	G	S	1						X		
LT-NBermB-14	9/28/16	1401	G	S	1						X		COMPOSITE
LT-NBermB-11	9/28/16	1405	G	S	1						X		
LT-NBermB-16	9/28/16	1420	G	S	1						X		
LT-XF4-0.5	9/29/16	0900	G	S	1							X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

18.2 18.0 O/N ice

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 21.6 Corr'd: 21.2		Therm ID No.: 12-TS
Relinquished by:	Company: Langan	Date/Time: 10/3/16 1640	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 10/03/16 16:40

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

TestAmerica Irvine
17461 Derian Avenue
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Irvine, CA 92614-5843
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/03/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	5 of 5 COCs
32 Executive Park Drive	Analysis Turnaround Time			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-XF6-0.5	9/29/16	1000	G	S	1							X	
LT-XF5-0.5	9/29/16	1010	G	S	1							X	
LT-XF7-0.5	9/29/16	1010	G	S	1							X	
LT-XF8-0.5	9/29/16	1018	G	S	1							X	
LT-Sewer-20	9/29/16	1153	G	S	1								HOLD
LT-Sewer-10	9/29/16	1157	G	S	1								HOLD
LT-47-1	9/29/16	1253	G	S	1								HOLD
LT-47-5	9/29/16	1255	G	S	1								HOLD
LT-47-20	9/29/16	1303	G	S	1								HOLD
LT-CBermA-5	9/29/16	1335	G	S	1						X		COMPOSITE
LT-CBermA-10	9/29/16	1340	G	S	1						X		
LT-19-15	9/30/16	0815	G	S	1								HOLD

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

18.2 / 18.0 on ice

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 21.6 Corr'd: 21.4	Therm ID No.: IR-18	
Relinquished by:	Company: Langan	Date/Time: 10/3/16 1640	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 10/03/16 1640

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

440 160409

TestAmerica Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614-5843
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/03/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	1 of 5 COCs
32 Executive Park Drive	Analysis Turnaround Time			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(805) 708-7200	TAT if different from Below			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-5-1	9/27/16	0950	G	S	1						X		~~HOLD~~
LT-5-15	9/27/16	0955	G	S	1						X		HOLD
LT-6-1	9/27/16	1015	G	S	1						X		COMPOSITE
LT-6-15	9/27/16	1020	G	S	1						X		
LT-10-1	9/27/16	1050	G	S	1						X	72	~~HOLD~~ COMPOSITE
LT-10-15	9/27/16	1055	G	S	1						X		~~HOLD~~
LT-45-1	9/27/16	1120	G	S	1			X			X	TB	~~HOLD~~ COMPOSITE
LT-45-15	9/27/16	1130	G	S	1			X			X		~~HOLD~~
LT-MW1B-5	9/28/16	0850	G	S	1						X		COMPOSITE ALL 5
LT-MW1B-10	9/28/16	0852	G	S	1						X		LT-MW1B SAMPLES-
LT-MW1B-15	9/28/16	0855	G	S	1						X		INCLUDE LT-MW1B-25
LT-MW1B-20	9/28/16	0857	G	S	1						X		ON PG. 2 of 5

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

18.2 18.0 ONICE

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 21.6 Corr'd: 21.2		Therm ID No.: IR-78
Relinquished by:	Company: Langan	Date/Time: 10/3/16 1640	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAL	Date/Time: 10/03/16 1640

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

TestAmerica Irvine
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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/03/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	2 of 5 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-MW1B-25	9/28/16	0859	G	S	1						X		COMPOSITE W/LT-MW1B
LT-MW1C-5	9/28/16	0900	G	S	1						X		
LT-MW1C-10	9/28/16	0902	G	S	1						X		
LT-MW1C-15	9/28/16	0905	G	S	1						X		COMPOSITE
LT-MW1C-20	9/28/16	0910	G	S	1						X		
LT-MW1C-25	9/28/16	0912	G	S	1						X		
LT-EBermC-5	9/28/16	0950	G	S	1						X		
LT-EBermC-8	9/28/16	0952	G	S	1						X		COMPOSITE
LT-EBermC-13	9/28/16	0957	G	S	1						X		
LT-EBermC-17	9/28/16	1000	G	S	1						X		
LT-EBermD-3	9/28/16	1020	G	S	1						X		COMPOSITE W/ALL 4
LT-EBermD-6	9/28/16	1022	G	S	1						X		LT-EBermD SAMPLES

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

18.2 / 180° on ice

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 21.6 Corr'd: 21.9		Therm ID No.: IR-78
Relinquished by:	Company: Langan	Date/Time: 10/3/16 1640	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 10/03/16 1640

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Page 61 of 65
G 2025
10/27/2016

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/03/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	3 of 5 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-EBermD-11	9/28/16	1025	G	S	1						X		COMPOSITE W/ALL 4 LT-EBermD SAMPLES
LT-EBermD-14	9/28/16	1027	G	S	1						X		
LT-SBermA-1	9/28/16	1125	G	S	1						X		COMPOSITE
LT-SBermA-3	9/28/16	1128	G	S	1						X		
LT-SBermA-7	9/28/16	1131	G	S	1						X		
LT-SBermA-12	9/28/16	1140	G	S	1						X		
LT-SBermA-18	9/28/16	1142	G	S	1						X		
LT-SBermB-5	9/28/16	1200	G	S	1						X		COMPOSITE
LT-SBermB-9	9/28/16	1205	G	S	1						X		
LT-SBermB-12	9/28/16	1210	G	S	1						X		
LT-SBermB-18	9/28/16	1215	G	S	1						X		
LT-XF1-0.5	9/28/16	1250	G	S	1							X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
18.2 / 18.0 on ice

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 21.6 Corr'd: 21.3		Therm ID No.: 12-18
Relinquished by:	Company: Langan	Date/Time: 10/3/16 1640	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 10/03/16 16:40

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

TestAmerica Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614-5843
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/03/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	4 of 5 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-XF2-0.5	9/28/16	1308	G	S	1							X	
LT-XF3-0.5	9/28/16	1317	G	S	1							X	
LT-NBermA-3	9/28/16	1340	G	S	1						X		COMPOSITE
LT-NBermA-6	9/28/16	1344	G	S	1						X		
LT-NBermA-10	9/28/16	1349	G	S	1						X		
LT-NBermA-18	9/28/16	1355	G	S	1						X		
LT-NBermB-4	9/28/16	1359	G	S	1						X		COMPOSITE
LT-NBermB-7	9/28/16	1400	G	S	1						X		
LT-NBermB-14	9/28/16	1401	G	S	1						X		COMPOSITE
LT-NBermB-11	9/28/16	1405	G	S	1						X		
LT-NBermB-16	9/28/16	1420	G	S	1						X		
LT-XF4-0.5	9/29/16	0900	G	S	1							X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

18.2 18.0 ON ice

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: 21.6 Corr'd: 21.4	Therm ID No.: IR-T8
Relinquished by:	Company: Langan	Date/Time: 10/3/16 1640	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 10/03/16 16:40

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

6-2017
10/12/2016

TestAmerica Irvine
17461 Derian Avenue
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Irvine, CA 92614-5843
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/03/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	5 of 5 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-XF6-0.5	9/29/16	1000	G	S	1							X	
LT-XF5-0.5	9/29/16	1010	G	S	1							X	
LT-XF7-0.5	9/29/16	1010	G	S	1							X	
LT-XF8-0.5	9/29/16	1018	G	S	1							X	
LT-Sewer-20	9/29/16	1153	G	S	1								HOLD
LT-Sewer-10	9/29/16	1157	G	S	1			X	X	X	X	X	VOC 1ST
LT-47-1	9/29/16	1253	G	S	1								HOLD
LT-47-5	9/29/16	1255	G	S	1						X		} COMPOSITE
LT-47-20	9/29/16	1303	G	S	1						X		
LT-CBermA-5	9/29/16	1335	G	S	1						X		} COMPOSITE
LT-CBermA-10	9/29/16	1340	G	S	1						X		
LT-19-15	9/30/16	0815	G	S	1								HOLD

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

18.2 / 18.0 on ice

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 21.6 Corr'd: 21.4 Therm ID No.: IR-28		
Relinquished by:	Company: Langan	Date/Time: 10/3/16 1640	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 10/03/16 1640

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Srvcs

Job Number: 440-160409-1

Login Number: 160409

List Source: TestAmerica Irvine

List Number: 1

Creator: Soderblom, Tim

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	18.2/18.0c & 21.6/21.4c
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	False	Composite
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-160491-1
Client Project/Site: Agua Mansa Commerce Park

For:
Langan Engineering & Environmental Srvcs
32 Executive Park
Suite 130
Irvine, California 92614

Attn: Drew Lassen

Authorized for release by:
10/12/2016 1:56:10 PM

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 6
Method Summary 14
Lab Chronicle 15
QC Sample Results 19
QC Association Summary 28
Definitions/Glossary 32
Certification Summary 33
Chain of Custody 34
Receipt Checklists 39

Sample Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160491-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-160491-1	LT-AS1	Solid	09/22/16 11:27	10/04/16 10:00
440-160491-2	LT-AS2	Solid	09/22/16 11:24	10/04/16 10:00
440-160491-6	LT-40-1	Solid	09/26/16 14:22	10/04/16 10:00
440-160491-10	LT-39-1	Solid	09/27/16 07:58	10/04/16 10:00
440-160491-14	LT-42-1	Solid	09/26/16 11:52	10/04/16 10:00
440-160491-15	LT-43-1	Solid	09/26/16 12:55	10/04/16 10:00
440-160491-17	LT-11-5	Solid	09/22/16 08:35	10/04/16 10:00
440-160491-19	LT-EBermB-2	Solid	09/28/16 09:35	10/04/16 10:00
440-160491-20	LT-XF9-0.5	Solid	09/29/16 11:02	10/04/16 10:00
440-160491-21	LT-EBermA-1	Solid	09/28/16 09:30	10/04/16 10:00
440-160491-28	COMPOSITE (LT-MW1A)	Solid	09/27/16 12:37	10/04/16 10:00
440-160491-29	ELB-1-5	Solid	09/23/16 12:00	10/04/16 10:00
440-160491-30	ELB-1-10	Solid	09/23/16 12:09	10/04/16 10:00
440-160491-31	ELB-1-15	Solid	09/23/16 12:19	10/04/16 10:00
440-160491-32	ELB-1-20	Solid	09/23/16 12:29	10/04/16 10:00
440-160491-33	ELB-1-25	Solid	09/23/16 12:42	10/04/16 10:00
440-160491-34	ELB-1-30	Solid	09/23/16 12:59	10/04/16 10:00

Job ID: 440-160491-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-160491-1

Comments
No additional comments.

Receipt
The samples were received on 10/4/2016 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.6º C.

Receipt Exceptions

The Field Sampler was not listed on the Chain of Custody.

These samples are not marked for analysis on the COC. They are 3 of 6 samples to be composited, and the other 3 samples are marked for Title 22 Metals. The composite sample has been logged in for metals.

LT-MW1A-15 (440-160491-25), LT-MW1A-18 (440-160491-26) and LT-MW1A-21 (440-160491-27)

GC VOA
Method(s) 8015B: The following sample was analyzed outside of analytical holding time due to request past hold time: LT-11-5 (440-160491-17).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8015B: The matrix spike (MS) recoveries for preparation batch 440-360059 and analytical batch 440-360322 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8082: The following samples required a copper clean-up to reduce matrix interferences caused by sulfur: (LCS 440-360915/2-A), (MB 440-360915/1-A), (320-22393-A-1-C), (320-22393-A-1-A MS) and (320-22393-A-1-B MSD).

Method(s) 8082: The following samples was analyzed outside of analytical holding time due to late extraction: LT-11-5 (440-160491-17).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method(s) 6010B: The matrix spike duplicate for the following sample associated with preparation batch 440-360478 and analytical batch 440-360662 recovered outside acceptance limits. A post digestion spike (PDS) was performed with acceptable recoveries obtained confirming that sample showed signs of matrix interference. The results have been reported.

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 440-360997 and analytical batch 440-361520 were outside control limits for Lead. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.(440-160491-A-6-C MSD)

Method(s) 6010B: The following sample was diluted due to the nature of the sample matrix: LT-40-1 (440-160491-6). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
Method(s) 3546: The following sample was added in outside of holding time: LT-11-5 (440-160491-17).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Job ID: 440-160491-1 (Continued)

Laboratory: TestAmerica Irvine (Continued)

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160491-1

Client Sample ID: LT-AS1

Date Collected: 09/22/16 11:27
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-1
Matrix: Solid

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:48	1
Aroclor 1221	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:48	1
Aroclor 1232	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:48	1
Aroclor 1242	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:48	1
Aroclor 1248	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:48	1
Aroclor 1254	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:48	1
Aroclor 1260	ND		49		ug/Kg		10/06/16 20:34	10/07/16 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*84*		*45 - 120*	*10/06/16 20:34*	*10/07/16 21:48*	*1*

Client Sample ID: LT-AS2

Date Collected: 09/22/16 11:24
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-2
Matrix: Solid

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:04	1
Aroclor 1221	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:04	1
Aroclor 1232	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:04	1
Aroclor 1242	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:04	1
Aroclor 1248	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:04	1
Aroclor 1254	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:04	1
Aroclor 1260	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*71*		*45 - 120*	*10/06/16 20:34*	*10/07/16 22:04*	*1*

Client Sample ID: LT-40-1

Date Collected: 09/26/16 14:22
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-6
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	F1	20		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Arsenic	**14**	**F1**	6.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Barium	**81**	**F1**	3.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Beryllium	ND		1.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Cadmium	**4.9**	**F1**	1.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Chromium	**20**		2.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Cobalt	**4.6**		2.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Copper	**37**	**F1**	4.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Lead	**200**	**F2**	4.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Molybdenum	ND		4.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Nickel	**26**	**F1**	4.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Selenium	ND	F1	6.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Thallium	ND		20		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Vanadium	**29**		2.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Zinc	**48**		10		mg/Kg		10/08/16 08:11	10/11/16 11:43	10
Silver	ND		3.0		mg/Kg		10/08/16 08:11	10/11/16 11:43	10

Client Sample ID: LT-40-1

Date Collected: 09/26/16 14:22
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-6
Matrix: Solid

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/10/16 15:54	10/11/16 04:53	1

Client Sample ID: LT-39-1

Date Collected: 09/27/16 07:58
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-10
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		20		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Arsenic	ND		5.9		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Barium	**76**		3.0		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Beryllium	ND		0.99		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Cadmium	**2.2**		0.99		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Chromium	**21**		2.0		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Cobalt	**3.4**		2.0		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Copper	**19**		3.9		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Lead	**38**		3.9		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Molybdenum	ND		3.9		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Nickel	**15**		3.9		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Selenium	ND		5.9		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Thallium	ND		20		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Vanadium	**25**		2.0		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Zinc	**190**		9.9		mg/Kg		10/08/16 08:11	10/11/16 11:53	10
Silver	ND		3.0		mg/Kg		10/08/16 08:11	10/11/16 11:53	10

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**2.0**		0.098		mg/Kg		10/10/16 15:54	10/11/16 04:01	5

Client Sample ID: LT-42-1

Date Collected: 09/26/16 11:52
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-14
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Arsenic	**6.3**		3.0		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Barium	**50**		1.5		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Beryllium	ND		0.50		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Cadmium	ND		0.50		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Chromium	**25**		1.0		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Cobalt	**4.3**		1.0		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Copper	**14**		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Lead	**13**		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Molybdenum	ND		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Nickel	**13**		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Selenium	ND		3.0		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Thallium	ND		10		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Vanadium	**33**		1.0		mg/Kg		10/08/16 08:11	10/10/16 13:43	5
Zinc	**46**		5.0		mg/Kg		10/08/16 08:11	10/10/16 13:43	5

Client Sample ID: LT-42-1

Date Collected: 09/26/16 11:52
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-14
Matrix: Solid

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		1.5		mg/Kg		10/08/16 08:11	10/10/16 13:43	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/10/16 15:54	10/11/16 01:36	1

Client Sample ID: LT-43-1

Date Collected: 09/26/16 12:55
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-15
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.8		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Arsenic	**3.7**		2.9		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Barium	**35**		1.5		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Beryllium	ND		0.49		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Cadmium	ND		0.49		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Chromium	**12**		0.98		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Cobalt	**3.1**		0.98		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Copper	**7.9**		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Lead	**3.7**		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Molybdenum	ND		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Nickel	**8.0**		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Selenium	ND		2.9		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Thallium	ND		9.8		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Vanadium	**25**		0.98		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Zinc	**25**		4.9		mg/Kg		10/08/16 08:11	10/10/16 13:45	5
Silver	ND		1.5		mg/Kg		10/08/16 08:11	10/10/16 13:45	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/10/16 15:54	10/11/16 01:40	1

Client Sample ID: LT-11-5

Date Collected: 09/22/16 08:35
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-17
Matrix: Solid

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND	H	400		ug/Kg			10/07/16 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*65 - 140*		*10/07/16 17:30*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND	H	4.9		mg/Kg		10/07/16 17:16	10/10/16 14:30	1
C23-C40	**33**	**H**	4.9		mg/Kg		10/07/16 17:16	10/10/16 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*51*		*40 - 140*	*10/07/16 17:16*	*10/10/16 14:30*	*1*

Client Sample ID: LT-11-5

Lab Sample ID: 440-160491-17

Date Collected: 09/22/16 08:35

Matrix: Solid

Date Received: 10/04/16 10:00

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND	H	50		ug/Kg		10/07/16 17:18	10/10/16 20:32	1
Aroclor 1221	ND	H	50		ug/Kg		10/07/16 17:18	10/10/16 20:32	1
Aroclor 1232	ND	H	50		ug/Kg		10/07/16 17:18	10/10/16 20:32	1
Aroclor 1242	ND	H	50		ug/Kg		10/07/16 17:18	10/10/16 20:32	1
Aroclor 1248	ND	H	50		ug/Kg		10/07/16 17:18	10/10/16 20:32	1
Aroclor 1254	ND	H	50		ug/Kg		10/07/16 17:18	10/10/16 20:32	1
Aroclor 1260	ND	H	50		ug/Kg		10/07/16 17:18	10/10/16 20:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*59*		*45 - 120*	*10/07/16 17:18*	*10/10/16 20:32*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Arsenic	**6.4**		3.0		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Barium	**49**		1.5		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Beryllium	ND		0.50		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Cadmium	ND		0.50		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Chromium	**17**		1.0		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Cobalt	**4.6**		1.0		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Copper	**19**		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Lead	**25**		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Molybdenum	ND		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Nickel	**11**		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Selenium	ND		3.0		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Thallium	ND		10		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Vanadium	**29**		1.0		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Zinc	**51**		5.0		mg/Kg		10/08/16 08:11	10/10/16 13:46	5
Silver	ND		1.5		mg/Kg		10/08/16 08:11	10/10/16 13:46	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**1.4**		0.020		mg/Kg		10/10/16 15:54	10/11/16 01:43	1

Client Sample ID: LT-EBermB-2

Lab Sample ID: 440-160491-19

Date Collected: 09/28/16 09:35

Matrix: Solid

Date Received: 10/04/16 10:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Arsenic	**5.6**		3.0		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Barium	**78**		1.5		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Beryllium	**0.51**		0.50		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Cadmium	**0.63**		0.50		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Chromium	**33**		1.0		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Cobalt	**7.0**		1.0		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Copper	**21**		2.0		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Lead	**15**		2.0		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Molybdenum	ND		2.0		mg/Kg		10/06/16 08:18	10/06/16 17:42	5

Client Sample ID: LT-EBermB-2

Lab Sample ID: 440-160491-19

Date Collected: 09/28/16 09:35
Matrix: Solid
Date Received: 10/04/16 10:00

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Nickel	**21**		2.0		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Selenium	ND		3.0		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Thallium	ND		10		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Vanadium	**41**		1.0		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Zinc	**51**		5.0		mg/Kg		10/06/16 08:18	10/06/16 17:42	5
Silver	ND		1.5		mg/Kg		10/06/16 08:18	10/06/16 17:42	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.022**		0.020		mg/Kg		10/06/16 20:19	10/07/16 18:16	1

Client Sample ID: LT-XF9-0.5

Lab Sample ID: 440-160491-20

Date Collected: 09/29/16 11:02
Matrix: Solid
Date Received: 10/04/16 10:00

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:19	1
Aroclor 1221	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:19	1
Aroclor 1232	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:19	1
Aroclor 1242	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:19	1
Aroclor 1248	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:19	1
Aroclor 1254	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:19	1
Aroclor 1260	ND		50		ug/Kg		10/06/16 20:34	10/07/16 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*75*		*45 - 120*	*10/06/16 20:34*	*10/07/16 22:19*	*1*

Client Sample ID: LT-EBermA-1

Lab Sample ID: 440-160491-21

Date Collected: 09/28/16 09:30
Matrix: Solid
Date Received: 10/04/16 10:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Arsenic	**3.7**		3.0		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Barium	**41**		1.5		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Beryllium	ND		0.49		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Cadmium	ND		0.49		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Chromium	**16**		0.99		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Cobalt	**3.5**		0.99		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Copper	**12**		2.0		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Lead	**7.1**		2.0		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Molybdenum	ND		2.0		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Nickel	**10**		2.0		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Selenium	ND		3.0		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Thallium	ND		9.9		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Vanadium	**26**		0.99		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Zinc	**29**		4.9		mg/Kg		10/06/16 08:18	10/06/16 17:56	5
Silver	ND		1.5		mg/Kg		10/06/16 08:18	10/06/16 17:56	5

Client Sample ID: LT-EBermA-1

Lab Sample ID: 440-160491-21

Date Collected: 09/28/16 09:30

Matrix: Solid

Date Received: 10/04/16 10:00

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/06/16 20:19	10/07/16 18:19	1

Client Sample ID: COMPOSITE (LT-MW1A)

Lab Sample ID: 440-160491-28

Date Collected: 09/27/16 12:37

Matrix: Solid

Date Received: 10/04/16 10:00

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Arsenic	**4.1**		3.0		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Barium	**48**		1.5		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Beryllium	ND		0.49		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Cadmium	**0.91**		0.49		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Chromium	**19**		0.99		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Cobalt	**4.2**		0.99		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Copper	**14**		2.0		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Lead	**17**		2.0		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Molybdenum	ND		2.0		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Nickel	**13**		2.0		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Selenium	ND		3.0		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Thallium	ND		9.9		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Vanadium	**31**		0.99		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Zinc	**32**		4.9		mg/Kg		10/06/16 08:18	10/06/16 17:58	5
Silver	ND		1.5		mg/Kg		10/06/16 08:18	10/06/16 17:58	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.034**		0.020		mg/Kg		10/06/16 20:19	10/07/16 18:27	1

Client Sample ID: ELB-1-5

Lab Sample ID: 440-160491-29

Date Collected: 09/23/16 12:00

Matrix: Solid

Date Received: 10/04/16 10:00

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			10/07/16 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*65 - 140*		*10/07/16 14:01*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 13:35	1
C23-C40	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*65*		*40 - 140*	*10/04/16 16:54*	*10/05/16 13:35*	*1*

Client Sample ID: ELB-1-10

Lab Sample ID: 440-160491-30

Date Collected: 09/23/16 12:09

Matrix: Solid

Date Received: 10/04/16 10:00

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			10/07/16 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*65 - 140*		*10/07/16 14:57*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 17:44	1
C23-C40	**5.9**		5.0		mg/Kg		10/04/16 16:54	10/05/16 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*44*		*40 - 140*	*10/04/16 16:54*	*10/05/16 17:44*	*1*

Client Sample ID: ELB-1-15

Lab Sample ID: 440-160491-31

Date Collected: 09/23/16 12:19

Matrix: Solid

Date Received: 10/04/16 10:00

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			10/07/16 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*65 - 140*		*10/07/16 17:58*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 13:55	1
C23-C40	**5.8**		5.0		mg/Kg		10/04/16 16:54	10/05/16 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*78*		*40 - 140*	*10/04/16 16:54*	*10/05/16 13:55*	*1*

Client Sample ID: ELB-1-20

Lab Sample ID: 440-160491-32

Date Collected: 09/23/16 12:29

Matrix: Solid

Date Received: 10/04/16 10:00

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		390		ug/Kg			10/07/16 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*75*		*65 - 140*		*10/07/16 18:25*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 14:15	1
C23-C40	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 14:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*73*		*40 - 140*	*10/04/16 16:54*	*10/05/16 14:15*	*1*

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160491-1

Client Sample ID: ELB-1-25

Date Collected: 09/23/16 12:42
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-33
Matrix: Solid

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			10/07/16 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*65 - 140*		*10/07/16 18:53*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 14:35	1
C23-C40	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*80*		*40 - 140*	*10/04/16 16:54*	*10/05/16 14:35*	*1*

Client Sample ID: ELB-1-30

Date Collected: 09/23/16 12:59
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-34
Matrix: Solid

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			10/07/16 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*65 - 140*		*10/07/16 19:21*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 17:23	1
C23-C40	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*71*		*40 - 140*	*10/04/16 16:54*	*10/05/16 17:23*	*1*

Method Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160491-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
7471A	Mercury (CVAA)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160491-1

Client Sample ID: LT-AS1

Date Collected: 09/22/16 11:27
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.34 g	2 mL	360624	10/06/16 20:34	VA	TAL IRV
Total/NA	Analysis	8082		1			360865	10/07/16 21:48	JM	TAL IRV

Client Sample ID: LT-AS2

Date Collected: 09/22/16 11:24
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.07 g	2 mL	360624	10/06/16 20:34	VA	TAL IRV
Total/NA	Analysis	8082		1			360865	10/07/16 22:04	JM	TAL IRV

Client Sample ID: LT-40-1

Date Collected: 09/26/16 14:22
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	360997	10/08/16 08:11	DT	TAL IRV
Total/NA	Analysis	6010B		10			361520	10/11/16 11:43	ND	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	361291	10/10/16 15:54	DB	TAL IRV
Total/NA	Analysis	7471A		1			361458	10/11/16 04:53	DB	TAL IRV

Client Sample ID: LT-39-1

Date Collected: 09/27/16 07:58
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	360997	10/08/16 08:11	DT	TAL IRV
Total/NA	Analysis	6010B		10			361520	10/11/16 11:53	ND	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	361291	10/10/16 15:54	DB	TAL IRV
Total/NA	Analysis	7471A		5			361458	10/11/16 04:01	DB	TAL IRV

Client Sample ID: LT-42-1

Date Collected: 09/26/16 11:52
Date Received: 10/04/16 10:00

Lab Sample ID: 440-160491-14
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.00 g	50 mL	360997	10/08/16 08:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361282	10/10/16 13:43	ND	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	361291	10/10/16 15:54	DB	TAL IRV
Total/NA	Analysis	7471A		1			361457	10/11/16 01:36	DB	TAL IRV

Client Sample ID: LT-43-1

Lab Sample ID: 440-160491-15

Date Collected: 09/26/16 12:55

Matrix: Solid

Date Received: 10/04/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.04 g	50 mL	360997	10/08/16 08:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361282	10/10/16 13:45	ND	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	361291	10/10/16 15:54	DB	TAL IRV
Total/NA	Analysis	7471A		1			361457	10/11/16 01:40	DB	TAL IRV

Client Sample ID: LT-11-5

Lab Sample ID: 440-160491-17

Date Collected: 09/22/16 08:35

Matrix: Solid

Date Received: 10/04/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.04 g	10 mL	360766	10/07/16 17:30	IM	TAL IRV
Total/NA	Prep	3546			15.21 g	1 mL	360914	10/07/16 17:16	VA	TAL IRV
Total/NA	Analysis	8015B		1			361148	10/10/16 14:30	CN	TAL IRV
Total/NA	Prep	3546			15.05 g	2 mL	360915	10/07/16 17:18	VA	TAL IRV
Total/NA	Analysis	8082		1			361241	10/10/16 20:32	JM	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	360997	10/08/16 08:11	DT	TAL IRV
Total/NA	Analysis	6010B		5			361282	10/10/16 13:46	ND	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	361291	10/10/16 15:54	DB	TAL IRV
Total/NA	Analysis	7471A		1			361457	10/11/16 01:43	DB	TAL IRV

Client Sample ID: LT-EBermB-2

Lab Sample ID: 440-160491-19

Date Collected: 09/28/16 09:35

Matrix: Solid

Date Received: 10/04/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	360478	10/06/16 08:18	DT	TAL IRV
Total/NA	Analysis	6010B		5			360662	10/06/16 17:42	EN	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	360674	10/06/16 20:19	DB	TAL IRV
Total/NA	Analysis	7471A		1			361280	10/07/16 18:16	DB	TAL IRV

Client Sample ID: LT-XF9-0.5

Lab Sample ID: 440-160491-20

Date Collected: 09/29/16 11:02

Matrix: Solid

Date Received: 10/04/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.01 g	2 mL	360624	10/06/16 20:34	VA	TAL IRV
Total/NA	Analysis	8082		1			360865	10/07/16 22:19	JM	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160491-1

Client Sample ID: LT-EBermA-1

Lab Sample ID: 440-160491-21

Date Collected: 09/28/16 09:30
Matrix: Solid
Date Received: 10/04/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	360478	10/06/16 08:18	DT	TAL IRV
Total/NA	Analysis	6010B		5			360662	10/06/16 17:56	EN	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360674	10/06/16 20:19	DB	TAL IRV
Total/NA	Analysis	7471A		1			361280	10/07/16 18:19	DB	TAL IRV

Client Sample ID: COMPOSITE (LT-MW1A)

Lab Sample ID: 440-160491-28

Date Collected: 09/27/16 12:37
Matrix: Solid
Date Received: 10/04/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	360478	10/06/16 08:18	DT	TAL IRV
Total/NA	Analysis	6010B		5			360662	10/06/16 17:58	EN	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	360674	10/06/16 20:19	DB	TAL IRV
Total/NA	Analysis	7471A		1			361280	10/07/16 18:27	DB	TAL IRV

Client Sample ID: ELB-1-5

Lab Sample ID: 440-160491-29

Date Collected: 09/23/16 12:00
Matrix: Solid
Date Received: 10/04/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.06 g	10 mL	360766	10/07/16 14:01	IM	TAL IRV
Total/NA	Prep	3546			15.07 g	1 mL	360059	10/04/16 16:54	LEG	TAL IRV
Total/NA	Analysis	8015B		1			360303	10/05/16 13:35	AMH	TAL IRV

Client Sample ID: ELB-1-10

Lab Sample ID: 440-160491-30

Date Collected: 09/23/16 12:09
Matrix: Solid
Date Received: 10/04/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5 g	10 mL	360766	10/07/16 14:57	IM	TAL IRV
Total/NA	Prep	3546			15.08 g	1 mL	360059	10/04/16 16:54	LEG	TAL IRV
Total/NA	Analysis	8015B		1			360322	10/05/16 17:44	AMH	TAL IRV

Client Sample ID: ELB-1-15

Lab Sample ID: 440-160491-31

Date Collected: 09/23/16 12:19
Matrix: Solid
Date Received: 10/04/16 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.06 g	10 mL	360766	10/07/16 17:58	IM	TAL IRV
Total/NA	Prep	3546			15.12 g	1 mL	360059	10/04/16 16:54	LEG	TAL IRV
Total/NA	Analysis	8015B		1			360303	10/05/16 13:55	AMH	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160491-1

Client Sample ID: ELB-1-20

Lab Sample ID: 440-160491-32

Date Collected: 09/23/16 12:29
Date Received: 10/04/16 10:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.09 g	10 mL	360766	10/07/16 18:25	IM	TAL IRV
Total/NA	Prep	3546			15.06 g	1 mL	360059	10/04/16 16:54	LEG	TAL IRV
Total/NA	Analysis	8015B		1			360303	10/05/16 14:15	AMH	TAL IRV

Client Sample ID: ELB-1-25

Lab Sample ID: 440-160491-33

Date Collected: 09/23/16 12:42
Date Received: 10/04/16 10:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.01 g	10 mL	360766	10/07/16 18:53	IM	TAL IRV
Total/NA	Prep	3546			15.06 g	1 mL	360059	10/04/16 16:54	LEG	TAL IRV
Total/NA	Analysis	8015B		1			360303	10/05/16 14:35	AMH	TAL IRV

Client Sample ID: ELB-1-30

Lab Sample ID: 440-160491-34

Date Collected: 09/23/16 12:59
Date Received: 10/04/16 10:00

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.02 g	10 mL	360766	10/07/16 19:21	IM	TAL IRV
Total/NA	Prep	3546			15.13 g	1 mL	360059	10/04/16 16:54	LEG	TAL IRV
Total/NA	Analysis	8015B		1			360322	10/05/16 17:23	AMH	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 440-360766/5
Matrix: Solid
Analysis Batch: 360766

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			10/07/16 10:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*65 - 140*		*10/07/16 10:41*	*1*

Lab Sample ID: LCS 440-360766/3
Matrix: Solid
Analysis Batch: 360766

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			1600	1610		ug/Kg		101	70 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*65 - 140*

Lab Sample ID: LCSD 440-360766/4
Matrix: Solid
Analysis Batch: 360766

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			1600	1650		ug/Kg		103	70 - 135	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*65 - 140*

Lab Sample ID: 440-160349-B-3 MS
Matrix: Solid
Analysis Batch: 360766

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)	ND		1590	1560		ug/Kg		98	60 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*65 - 140*

Lab Sample ID: 440-160349-B-3 MSD
Matrix: Solid
Analysis Batch: 360766

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	ND		1580	1400		ug/Kg		88	60 - 140	11	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*65 - 140*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-360059/1-A
Matrix: Solid
Analysis Batch: 360303

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360059

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 12:56	1
C23-C40	ND		5.0		mg/Kg		10/04/16 16:54	10/05/16 12:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*71*		*40 - 140*	*10/04/16 16:54*	*10/05/16 12:56*	*1*

Lab Sample ID: LCS 440-360059/2-A
Matrix: Solid
Analysis Batch: 360303

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360059

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28			66.7	58.2		mg/Kg		87	45 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*79*		*40 - 140*

Lab Sample ID: 720-74823-D-5-B MS
Matrix: Solid
Analysis Batch: 360322

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 360059

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28	7.3	F1	116	38.9	F1	mg/Kg		27	40 - 120		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
n-Octacosane	*36*	*X*	*40 - 140*

Lab Sample ID: 720-74823-D-5-C MSD
Matrix: Solid
Analysis Batch: 360322

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 360059

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	7.3	F1	66.5	40.8		mg/Kg		50	40 - 120	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*69*		*40 - 140*

Lab Sample ID: MB 440-360914/1-A
Matrix: Solid
Analysis Batch: 361148

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360914

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		10/07/16 17:16	10/10/16 13:02	1
C23-C40	ND		5.0		mg/Kg		10/07/16 17:16	10/10/16 13:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*69*		*40 - 140*	*10/07/16 17:16*	*10/10/16 13:02*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 440-360914/2-A
Matrix: Solid
Analysis Batch: 361148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360914

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28			66.7	46.8		mg/Kg		70	45 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*74*		*40 - 140*

Lab Sample ID: 440-160491-17 MS
Matrix: Solid
Analysis Batch: 361148

Client Sample ID: LT-11-5
Prep Type: Total/NA
Prep Batch: 360914

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28	11	H	66.4	53.0		mg/Kg		63	40 - 120		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
n-Octacosane	*58*		*40 - 140*

Lab Sample ID: 440-160491-17 MSD
Matrix: Solid
Analysis Batch: 361148

Client Sample ID: LT-11-5
Prep Type: Total/NA
Prep Batch: 360914

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	11	H	66.1	63.3		mg/Kg		79	40 - 120	18	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*55*		*40 - 140*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 440-360624/1-A
Matrix: Solid
Analysis Batch: 360865

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360624

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1221	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1232	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1242	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1248	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1254	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1
Aroclor 1260	ND		50		ug/Kg		10/06/16 15:31	10/07/16 15:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*78*		*45 - 120*	*10/06/16 15:31*	*10/07/16 15:22*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 440-360624/5-A
Matrix: Solid
Analysis Batch: 360865

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360624

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016			267	217		ug/Kg		81	65 - 115		
Aroclor 1260			267	224		ug/Kg		84	65 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*76*		*45 - 120*

Lab Sample ID: 440-160659-B-2-B MS
Matrix: Solid
Analysis Batch: 360865

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 360624

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016	ND		266	224		ug/Kg		84	50 - 120		
Aroclor 1260	ND		266	227		ug/Kg		85	50 - 125		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*73*		*45 - 120*

Lab Sample ID: 440-160659-B-2-C MSD
Matrix: Solid
Analysis Batch: 360865

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 360624

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	ND		266	218		ug/Kg		82	50 - 120	3	30
Aroclor 1260	ND		266	228		ug/Kg		86	50 - 125	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*73*		*45 - 120*

Lab Sample ID: MB 440-360915/1-A
Matrix: Solid
Analysis Batch: 361241

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360915

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	ND		50		ug/Kg		10/07/16 17:18	10/10/16 15:53	1
Aroclor 1221	ND		50		ug/Kg		10/07/16 17:18	10/10/16 15:53	1
Aroclor 1232	ND		50		ug/Kg		10/07/16 17:18	10/10/16 15:53	1
Aroclor 1242	ND		50		ug/Kg		10/07/16 17:18	10/10/16 15:53	1
Aroclor 1248	ND		50		ug/Kg		10/07/16 17:18	10/10/16 15:53	1
Aroclor 1254	ND		50		ug/Kg		10/07/16 17:18	10/10/16 15:53	1
Aroclor 1260	ND		50		ug/Kg		10/07/16 17:18	10/10/16 15:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*68*		*45 - 120*	*10/07/16 17:18*	*10/10/16 15:53*	*1*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 440-360915/2-A
Matrix: Solid
Analysis Batch: 361241

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	267	213		ug/Kg		80	65 - 115
Aroclor 1260	267	214		ug/Kg		80	65 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*71*		*45 - 120*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-360478/1-A ^5
Matrix: Solid
Analysis Batch: 360662

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360478

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Arsenic	ND		3.0	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Barium	ND		1.5	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Beryllium	ND		0.50	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Cadmium	ND		0.50	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Chromium	ND		0.99	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Cobalt	ND		0.99	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Copper	ND		2.0	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Lead	ND		2.0	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Molybdenum	ND		2.0	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Nickel	ND		2.0	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Selenium	ND		3.0	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Thallium	ND		9.9	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Vanadium	ND		0.99	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Zinc	ND		5.0	mg/Kg		10/06/16 08:18	10/06/16 17:25	5
Silver	ND		1.5	mg/Kg		10/06/16 08:18	10/06/16 17:25	5

Lab Sample ID: LCS 440-360478/2-A ^5
Matrix: Solid
Analysis Batch: 360662

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	49.3	46.8		mg/Kg		95	80 - 120
Arsenic	49.3	43.8		mg/Kg		89	80 - 120
Barium	49.3	47.0		mg/Kg		95	80 - 120
Beryllium	49.3	43.9		mg/Kg		89	80 - 120
Cadmium	49.3	44.4		mg/Kg		90	80 - 120
Chromium	49.3	48.9		mg/Kg		99	80 - 120
Cobalt	49.3	47.9		mg/Kg		97	80 - 120
Copper	49.3	46.6		mg/Kg		95	80 - 120
Lead	49.3	46.9		mg/Kg		95	80 - 120
Molybdenum	49.3	47.7		mg/Kg		97	80 - 120
Nickel	49.3	47.9		mg/Kg		97	80 - 120
Selenium	49.3	41.2		mg/Kg		84	80 - 120
Thallium	49.3	46.4		mg/Kg		94	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 440-360478/2-A ^5
Matrix: Solid
Analysis Batch: 360662

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360478

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Vanadium	49.3	47.1		mg/Kg		96	80 - 120
Zinc	49.3	43.4		mg/Kg		88	80 - 120
Silver	24.6	23.1		mg/Kg		94	80 - 120

Lab Sample ID: 440-160734-A-1-E MS ^5
Matrix: Solid
Analysis Batch: 360662

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 360478

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	ND	F1	49.8	23.1	F1	mg/Kg		46	75 - 125
Arsenic	ND		49.8	43.4		mg/Kg		82	75 - 125
Barium	85		49.8	123		mg/Kg		77	75 - 125
Beryllium	ND		49.8	42.6		mg/Kg		85	75 - 125
Cadmium	ND		49.8	40.7		mg/Kg		81	75 - 125
Chromium	20	F1 F2	49.8	66.6		mg/Kg		94	75 - 125
Cobalt	5.5		49.8	49.2		mg/Kg		88	75 - 125
Copper	18	F2	49.8	59.2		mg/Kg		83	75 - 125
Lead	8.5		49.8	48.7		mg/Kg		81	75 - 125
Molybdenum	3.3	F2	49.8	45.8		mg/Kg		85	75 - 125
Nickel	14	F1 F2	49.8	54.9		mg/Kg		83	75 - 125
Selenium	ND		49.8	37.4		mg/Kg		75	75 - 125
Thallium	ND		49.8	46.7		mg/Kg		94	75 - 125
Vanadium	40		49.8	87.7		mg/Kg		97	75 - 125
Zinc	63	F1 F2	49.8	108		mg/Kg		91	75 - 125
Silver	ND		24.9	21.5		mg/Kg		86	75 - 125

Lab Sample ID: 440-160734-A-1-F MSD ^5
Matrix: Solid
Analysis Batch: 360662

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 360478

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	F1	50.0	23.0	F1	mg/Kg		46	75 - 125	0	20
Arsenic	ND		50.0	45.5		mg/Kg		86	75 - 125	5	20
Barium	85		50.0	126		mg/Kg		83	75 - 125	3	20
Beryllium	ND		50.0	42.2		mg/Kg		84	75 - 125	1	20
Cadmium	ND		50.0	41.7		mg/Kg		83	75 - 125	3	20
Chromium	20	F1 F2	50.0	133	F1 F2	mg/Kg		227	75 - 125	67	20
Cobalt	5.5		50.0	49.5		mg/Kg		88	75 - 125	1	20
Copper	18	F2	50.0	77.3	F2	mg/Kg		118	75 - 125	27	20
Lead	8.5		50.0	50.4		mg/Kg		84	75 - 125	3	20
Molybdenum	3.3	F2	50.0	65.7	F2	mg/Kg		125	75 - 125	36	20
Nickel	14	F1 F2	50.0	103	F1 F2	mg/Kg		178	75 - 125	61	20
Selenium	ND		50.0	39.5		mg/Kg		79	75 - 125	5	20
Thallium	ND		50.0	47.7		mg/Kg		95	75 - 125	2	20
Vanadium	40		50.0	87.9		mg/Kg		97	75 - 125	0	20
Zinc	63	F1 F2	50.0	147	F1 F2	mg/Kg		169	75 - 125	30	20
Silver	ND		25.0	21.6		mg/Kg		86	75 - 125	0	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 440-360997/1-A ^5
Matrix: Solid
Analysis Batch: 361282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360997

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Arsenic	ND		3.0		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Barium	ND		1.5		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Beryllium	ND		0.49		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Cadmium	ND		0.49		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Chromium	ND		0.99		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Cobalt	ND		0.99		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Copper	ND		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Lead	ND		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Molybdenum	ND		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Nickel	ND		2.0		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Selenium	ND		3.0		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Thallium	ND		9.9		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Vanadium	ND		0.99		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Zinc	ND		4.9		mg/Kg		10/08/16 08:11	10/10/16 13:22	5
Silver	ND		1.5		mg/Kg		10/08/16 08:11	10/10/16 13:22	5

Lab Sample ID: LCS 440-360997/2-A ^5
Matrix: Solid
Analysis Batch: 361282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360997

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			49.0	46.9		mg/Kg		96	80 - 120		
Arsenic			49.0	43.8		mg/Kg		89	80 - 120		
Barium			49.0	47.8		mg/Kg		98	80 - 120		
Beryllium			49.0	43.1		mg/Kg		88	80 - 120		
Cadmium			49.0	43.6		mg/Kg		89	80 - 120		
Chromium			49.0	50.0		mg/Kg		102	80 - 120		
Cobalt			49.0	47.8		mg/Kg		98	80 - 120		
Copper			49.0	45.3		mg/Kg		92	80 - 120		
Lead			49.0	47.5		mg/Kg		97	80 - 120		
Molybdenum			49.0	50.4		mg/Kg		103	80 - 120		
Nickel			49.0	48.8		mg/Kg		100	80 - 120		
Selenium			49.0	39.8		mg/Kg		81	80 - 120		
Thallium			49.0	47.4		mg/Kg		97	80 - 120		
Vanadium			49.0	46.2		mg/Kg		94	80 - 120		
Zinc			49.0	43.4		mg/Kg		89	80 - 120		
Silver			24.5	22.8		mg/Kg		93	80 - 120		

Lab Sample ID: 440-160491-6 MS
Matrix: Solid
Analysis Batch: 361520

Client Sample ID: LT-40-1
Prep Type: Total/NA
Prep Batch: 360997

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony	ND	F1	49.8	33.4	F1	mg/Kg		67	75 - 125		
Arsenic	14	F1	49.8	50.9		mg/Kg		75	75 - 125		
Barium	81	F1	49.8	115	F1	mg/Kg		68	75 - 125		
Beryllium	ND		49.8	41.6		mg/Kg		84	75 - 125		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-160491-6 MS
Matrix: Solid
Analysis Batch: 361520

Client Sample ID: LT-40-1
Prep Type: Total/NA
Prep Batch: 360997

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	4.9	F1	49.8	40.1	F1	mg/Kg		71	75 - 125
Chromium	20		49.8	64.7		mg/Kg		90	75 - 125
Cobalt	4.6		49.8	45.9		mg/Kg		83	75 - 125
Copper	37	F1	49.8	66.5	F1	mg/Kg		60	75 - 125
Lead	200	F2	49.8	171	4	mg/Kg		-62	75 - 125
Molybdenum	ND		49.8	44.6		mg/Kg		90	75 - 125
Nickel	26	F1	49.8	59.3	F1	mg/Kg		67	75 - 125
Selenium	ND	F1	49.8	41.0	F1	mg/Kg		74	75 - 125
Thallium	ND		49.8	41.8		mg/Kg		84	75 - 125
Vanadium	29		49.8	77.9		mg/Kg		98	75 - 125
Zinc	48		49.8	86.1		mg/Kg		77	75 - 125
Silver	ND		24.9	22.1		mg/Kg		89	75 - 125

Lab Sample ID: 440-160491-6 MSD
Matrix: Solid
Analysis Batch: 361520

Client Sample ID: LT-40-1
Prep Type: Total/NA
Prep Batch: 360997

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	F1	49.8	33.7	F1	mg/Kg		68	75 - 125	1	20
Arsenic	14	F1	49.8	50.7	F1	mg/Kg		74	75 - 125	0	20
Barium	81	F1	49.8	118	F1	mg/Kg		74	75 - 125	2	20
Beryllium	ND		49.8	42.1		mg/Kg		85	75 - 125	1	20
Cadmium	4.9	F1	49.8	41.4	F1	mg/Kg		73	75 - 125	3	20
Chromium	20		49.8	65.2		mg/Kg		91	75 - 125	1	20
Cobalt	4.6		49.8	46.9		mg/Kg		85	75 - 125	2	20
Copper	37	F1	49.8	65.9	F1	mg/Kg		59	75 - 125	1	20
Lead	200	F2	49.8	86.0	4 F2	mg/Kg		-233	75 - 125	66	20
Molybdenum	ND		49.8	45.9		mg/Kg		92	75 - 125	3	20
Nickel	26	F1	49.8	61.2	F1	mg/Kg		71	75 - 125	3	20
Selenium	ND	F1	49.8	42.1		mg/Kg		76	75 - 125	3	20
Thallium	ND		49.8	41.3		mg/Kg		83	75 - 125	1	20
Vanadium	29		49.8	78.2		mg/Kg		99	75 - 125	0	20
Zinc	48		49.8	89.6		mg/Kg		84	75 - 125	4	20
Silver	ND		24.9	22.7		mg/Kg		91	75 - 125	3	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-360674/1-A
Matrix: Solid
Analysis Batch: 361280

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 360674

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/06/16 20:19	10/07/16 17:34	1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 440-360674/2-A
Matrix: Solid
Analysis Batch: 361280

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 360674

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.800	0.864		mg/Kg		108	80 - 120		

Lab Sample ID: 440-160409-A-37-C MS
Matrix: Solid
Analysis Batch: 361280

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 360674

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.035		0.784	0.931		mg/Kg		114	70 - 130		

Lab Sample ID: 440-160409-A-37-D MSD
Matrix: Solid
Analysis Batch: 361280

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 360674

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.035		0.784	0.935		mg/Kg		115	70 - 130	0	20

Lab Sample ID: MB 440-361291/1-A
Matrix: Solid
Analysis Batch: 361457

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 361291

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/10/16 15:54	10/11/16 01:15	1

Lab Sample ID: LCS 440-361291/2-A
Matrix: Solid
Analysis Batch: 361457

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 361291

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.800	0.828		mg/Kg		103	80 - 120		

Lab Sample ID: 440-160987-A-4-Q MS
Matrix: Solid
Analysis Batch: 361457

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 361291

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.18		0.784	1.09		mg/Kg		117	70 - 130		

Lab Sample ID: 440-160987-A-4-R MSD
Matrix: Solid
Analysis Batch: 361457

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 361291

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.18		0.784	1.09		mg/Kg		116	70 - 130	0	20

GC VOA

Analysis Batch: 360766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-17	LT-11-5	Total/NA	Solid	8015B	
440-160491-29	ELB-1-5	Total/NA	Solid	8015B	
440-160491-30	ELB-1-10	Total/NA	Solid	8015B	
440-160491-31	ELB-1-15	Total/NA	Solid	8015B	
440-160491-32	ELB-1-20	Total/NA	Solid	8015B	
440-160491-33	ELB-1-25	Total/NA	Solid	8015B	
440-160491-34	ELB-1-30	Total/NA	Solid	8015B	
MB 440-360766/5	Method Blank	Total/NA	Solid	8015B	
LCS 440-360766/3	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 440-360766/4	Lab Control Sample Dup	Total/NA	Solid	8015B	
440-160349-B-3 MS	Matrix Spike	Total/NA	Solid	8015B	
440-160349-B-3 MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	

GC Semi VOA

Prep Batch: 360059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-29	ELB-1-5	Total/NA	Solid	3546	
440-160491-30	ELB-1-10	Total/NA	Solid	3546	
440-160491-31	ELB-1-15	Total/NA	Solid	3546	
440-160491-32	ELB-1-20	Total/NA	Solid	3546	
440-160491-33	ELB-1-25	Total/NA	Solid	3546	
440-160491-34	ELB-1-30	Total/NA	Solid	3546	
MB 440-360059/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-360059/2-A	Lab Control Sample	Total/NA	Solid	3546	
720-74823-D-5-B MS	Matrix Spike	Total/NA	Solid	3546	
720-74823-D-5-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 360303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-29	ELB-1-5	Total/NA	Solid	8015B	360059
440-160491-31	ELB-1-15	Total/NA	Solid	8015B	360059
440-160491-32	ELB-1-20	Total/NA	Solid	8015B	360059
440-160491-33	ELB-1-25	Total/NA	Solid	8015B	360059
MB 440-360059/1-A	Method Blank	Total/NA	Solid	8015B	360059
LCS 440-360059/2-A	Lab Control Sample	Total/NA	Solid	8015B	360059

Analysis Batch: 360322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-30	ELB-1-10	Total/NA	Solid	8015B	360059
440-160491-34	ELB-1-30	Total/NA	Solid	8015B	360059
720-74823-D-5-B MS	Matrix Spike	Total/NA	Solid	8015B	360059
720-74823-D-5-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	360059

Prep Batch: 360624

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-1	LT-AS1	Total/NA	Solid	3546	
440-160491-2	LT-AS2	Total/NA	Solid	3546	
440-160491-20	LT-XF9-0.5	Total/NA	Solid	3546	
MB 440-360624/1-A	Method Blank	Total/NA	Solid	3546	

GC Semi VOA (Continued)

Prep Batch: 360624 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-360624/5-A	Lab Control Sample	Total/NA	Solid	3546	
440-160659-B-2-B MS	Matrix Spike	Total/NA	Solid	3546	
440-160659-B-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 360865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-1	LT-AS1	Total/NA	Solid	8082	360624
440-160491-2	LT-AS2	Total/NA	Solid	8082	360624
440-160491-20	LT-XF9-0.5	Total/NA	Solid	8082	360624
MB 440-360624/1-A	Method Blank	Total/NA	Solid	8082	360624
LCS 440-360624/5-A	Lab Control Sample	Total/NA	Solid	8082	360624
440-160659-B-2-B MS	Matrix Spike	Total/NA	Solid	8082	360624
440-160659-B-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8082	360624

Prep Batch: 360914

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-17	LT-11-5	Total/NA	Solid	3546	
MB 440-360914/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-360914/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-160491-17 MS	LT-11-5	Total/NA	Solid	3546	
440-160491-17 MSD	LT-11-5	Total/NA	Solid	3546	

Prep Batch: 360915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-17	LT-11-5	Total/NA	Solid	3546	
MB 440-360915/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-360915/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 361148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-17	LT-11-5	Total/NA	Solid	8015B	360914
MB 440-360914/1-A	Method Blank	Total/NA	Solid	8015B	360914
LCS 440-360914/2-A	Lab Control Sample	Total/NA	Solid	8015B	360914
440-160491-17 MS	LT-11-5	Total/NA	Solid	8015B	360914
440-160491-17 MSD	LT-11-5	Total/NA	Solid	8015B	360914

Analysis Batch: 361241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-17	LT-11-5	Total/NA	Solid	8082	360915
MB 440-360915/1-A	Method Blank	Total/NA	Solid	8082	360915
LCS 440-360915/2-A	Lab Control Sample	Total/NA	Solid	8082	360915

Metals

Prep Batch: 360478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-19	LT-EBermB-2	Total/NA	Solid	3050B	
440-160491-21	LT-EBermA-1	Total/NA	Solid	3050B	
440-160491-28	COMPOSITE (LT-MW1A)	Total/NA	Solid	3050B	
MB 440-360478/1-A ^5	Method Blank	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 360478 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-360478/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
440-160734-A-1-E MS ^5	Matrix Spike	Total/NA	Solid	3050B	
440-160734-A-1-F MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 360662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-19	LT-EBermB-2	Total/NA	Solid	6010B	360478
440-160491-21	LT-EBermA-1	Total/NA	Solid	6010B	360478
440-160491-28	COMPOSITE (LT-MW1A)	Total/NA	Solid	6010B	360478
MB 440-360478/1-A ^5	Method Blank	Total/NA	Solid	6010B	360478
LCS 440-360478/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	360478
440-160734-A-1-E MS ^5	Matrix Spike	Total/NA	Solid	6010B	360478
440-160734-A-1-F MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	360478

Prep Batch: 360674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-19	LT-EBermB-2	Total/NA	Solid	7471A	
440-160491-21	LT-EBermA-1	Total/NA	Solid	7471A	
440-160491-28	COMPOSITE (LT-MW1A)	Total/NA	Solid	7471A	
MB 440-360674/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-360674/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-160409-A-37-C MS	Matrix Spike	Total/NA	Solid	7471A	
440-160409-A-37-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Prep Batch: 360997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-6	LT-40-1	Total/NA	Solid	3050B	
440-160491-10	LT-39-1	Total/NA	Solid	3050B	
440-160491-14	LT-42-1	Total/NA	Solid	3050B	
440-160491-15	LT-43-1	Total/NA	Solid	3050B	
440-160491-17	LT-11-5	Total/NA	Solid	3050B	
MB 440-360997/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 440-360997/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
440-160491-6 MS	LT-40-1	Total/NA	Solid	3050B	
440-160491-6 MSD	LT-40-1	Total/NA	Solid	3050B	

Analysis Batch: 361280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-19	LT-EBermB-2	Total/NA	Solid	7471A	360674
440-160491-21	LT-EBermA-1	Total/NA	Solid	7471A	360674
440-160491-28	COMPOSITE (LT-MW1A)	Total/NA	Solid	7471A	360674
MB 440-360674/1-A	Method Blank	Total/NA	Solid	7471A	360674
LCS 440-360674/2-A	Lab Control Sample	Total/NA	Solid	7471A	360674
440-160409-A-37-C MS	Matrix Spike	Total/NA	Solid	7471A	360674
440-160409-A-37-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	360674

Analysis Batch: 361282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-14	LT-42-1	Total/NA	Solid	6010B	360997
440-160491-15	LT-43-1	Total/NA	Solid	6010B	360997
440-160491-17	LT-11-5	Total/NA	Solid	6010B	360997

Metals (Continued)

Analysis Batch: 361282 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-360997/1-A ^5	Method Blank	Total/NA	Solid	6010B	360997
LCS 440-360997/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	360997

Prep Batch: 361291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-6	LT-40-1	Total/NA	Solid	7471A	
440-160491-10	LT-39-1	Total/NA	Solid	7471A	
440-160491-14	LT-42-1	Total/NA	Solid	7471A	
440-160491-15	LT-43-1	Total/NA	Solid	7471A	
440-160491-17	LT-11-5	Total/NA	Solid	7471A	
MB 440-361291/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-361291/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-160987-A-4-Q MS	Matrix Spike	Total/NA	Solid	7471A	
440-160987-A-4-R MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Analysis Batch: 361457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-14	LT-42-1	Total/NA	Solid	7471A	361291
440-160491-15	LT-43-1	Total/NA	Solid	7471A	361291
440-160491-17	LT-11-5	Total/NA	Solid	7471A	361291
MB 440-361291/1-A	Method Blank	Total/NA	Solid	7471A	361291
LCS 440-361291/2-A	Lab Control Sample	Total/NA	Solid	7471A	361291
440-160987-A-4-Q MS	Matrix Spike	Total/NA	Solid	7471A	361291
440-160987-A-4-R MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	361291

Analysis Batch: 361458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-6	LT-40-1	Total/NA	Solid	7471A	361291
440-160491-10	LT-39-1	Total/NA	Solid	7471A	361291

Analysis Batch: 361520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-160491-6	LT-40-1	Total/NA	Solid	6010B	360997
440-160491-10	LT-39-1	Total/NA	Solid	6010B	360997
440-160491-6 MS	LT-40-1	Total/NA	Solid	6010B	360997
440-160491-6 MSD	LT-40-1	Total/NA	Solid	6010B	360997

Qualifiers

GC VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-160491-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16 *
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 16-001r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Certification renewal pending - certification considered valid.

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/04/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	1 of 3 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-AS1	9/22/16	1127	G	S	1							X	
LT-AS2	9/22/16	1124	G	S	1							X	
LT-18-1	9/27/16	0849	G	S	1								HOLD
LT-18-15	9/27/16	0855	G	S	1								HOLD
LT-40-15	9/26/16	1426	G	S	1								HOLD
LT-40-1	9/26/16	1422	G	S	1								
LT-14-15	9/27/16	0932	G	S	1								
LT-14-2	9/27/16	0925	G	S	1								
LT-39-15	9/27/16	0813	G	S	1								
LT-39-1	9/27/16	0758	G	S	1								
LT-16-15	9/27/16	0915	G	S	1								
LT-16-1	9/27/16	0910	G	S	1								

440-160491 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

5.8 5.6 IR-78

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____		Therm ID No.: _____
Relinquished by:	Company: Langan	Date/Time: 10/4/16 1000	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 10/4/16 1000

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

*1

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/04/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	2 of 3 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-42-15	9/26/16	1156	G	S	1								Hold
LT-42-1	9/26/16	1152	G	S	1								Hold
LT-43-1	9/26/16	1255	G	S	1								Hold
LT-43-15	9/26/16	1258	G	S	1								Hold
LT-11-5	9/22/16	0835	G	S	1								Hold
LT-11-15	9/22/16	0845	G	S	1								Hold
LT-EBermB-2	9/28/16	0935	G	S	1						X		
LT-XF9-0.5	9/29/16	1102	G	S	1							X	
LT-EBermA-1	9/28/16	0930	G	S	1						X		
LT-MW1A-3	9/27/16	1220	G	S	1						X		Composite w/all 6 LT-MW1A samples
LT-MW1A-6	9/27/16	1225	G	S	1						X		
LT-MW1A-12	9/27/16	1227	G	S	1						X		

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

5B 5U 1R-7B

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

Relinquished by:	Company: Langan	Date/Time: 10/4/16 1000	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 10/4/16 @ 1102

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

10/12/2016

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/04/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	3 of 3 COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-MW1A-15	9/27/16	1231	G	S	1								composite w/ ALL 6 of LT-MW1A samples
LT-MW1A-18	9/27/16	1233	G	S	1								
LT-MW1A-21	9/27/16	1237	G	S	1								
ELB-1-5	9/23/16	1200	G	S	1			X					
ELB-1-10	9/23/16	1209	G	S	1			X					
ELB-1-15	9/23/16	1219	G	S	1			X					
ELB-1-20	9/23/16	1229	G	S	1			X					
ELB-1-25	9/23/16	1242	G	S	1			X					
ELB-1-30	9/23/16	1259	G	S	1			X					

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

5.8 5.4 IR-78

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____		Therm ID No.:_____
Relinquished by:	Company: Langan	Date/Time: 10/4/16 1000	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAL	Date/Time: 10/4/16 @ 1029

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/04/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	2 of 3 COCs
32 Executive Park Drive	Analysis Turnaround Time			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(805) 708-7200	TAT if different from Below ____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-42-15	9/26/16	1156	G	S	1								Hold
LT-42-1	9/26/16	1152	G	S	1						X		~~Hold~~
LT-43-1	9/26/16	1255	G	S	1						X		~~Hold~~
LT-43-15	9/26/16	1258	G	S	1								Hold
LT-11-5	9/22/16	0835	G	S	1			X			X	X	~~Hold~~
LT-11-15	9/22/16	0845	G	S	1								Hold
LT-EBermB-2	9/28/16	0935	G	S	1						X		
LT-XF9-0.5	9/29/16	1102	G	S	1							X	
LT-EBermA-1	9/28/16	0930	G	S	1						X		
LT-MW1A-3	9/27/16	1220	G	S	1						X		} COMPOSITE W/ALL 6
LT-MW1A-6	9/27/16	1225	G	S	1						X		} LT-MW1A samples
LT-MW1A-12	9/27/16	1227	G	S	1						X		

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: ____ Corr'd: ____		Therm ID No.: ____
Relinquished by:	Company: Langan	Date/Time: 10/4/16 1000	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/04/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	1 of 3 COCs
32 Executive Park Drive	Analysis Turnaround Time			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
(805) 708-7200	TAT if different from Below ____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-AS1	9/22/16	1127	G	S	1							X	
LT-AS2	9/22/16	1124	G	S	1							X	
LT-18-1	9/27/16	0849	G	S	1								HOLD
LT-18-15	9/27/16	0855	G	S	1								HOLD
LT-40-15	9/26/16	1426	G	S	1								HOLD
LT-40-1	9/26/16	1422	G	S	1						X		
LT-14-15	9/27/16	0932	G	S	1								HOLD
LT-14-2	9/27/16	0925	G	S	1								HOLD
LT-39-15	9/27/16	0813	G	S	1								HOLD
LT-39-1	9/27/16	0758	G	S	1						X		
LT-16-15	9/27/16	0915	G	S	1								HOLD
LT-16-1	9/27/16	0910	G	S	1								HOLD

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other ____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for ____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:____ Corr'd:____ Therm ID No.:____		
Relinquished by:	Company: Langan	Date/Time: 10/4/16 1000	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Srvcs

Job Number: 440-160491-1

Login Number: 160491

List Source: TestAmerica Irvine

List Number: 1

Creator: Garcia, Veronica G

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Field on COC is blank.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-161234-1
Client Project/Site: Agua Mansa Commerce Park

For:
Langan Engineering & Environmental Srvcs
32 Executive Park
Suite 130
Irvine, California 92614

Attn: Drew Lassen

Authorized for release by:
10/17/2016 2:04:40 PM

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 6
Lab Chronicle 7
QC Sample Results 8
QC Association Summary 11
Definitions/Glossary 12
Certification Summary 13
Chain of Custody 14
Receipt Checklists 15

Sample Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-161234-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-161234-1	LT-15-2	Solid	09/27/16 13:08	10/10/16 16:45
440-161234-2	LT-15-12	Solid	09/27/16 13:15	10/10/16 16:45

Job ID: 440-161234-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-161234-1

Comments
No additional comments.

Receipt
The samples were received on 10/10/2016 4:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3º C.

Receipt Exceptions
The Field Sampler was not listed on the Chain of Custody.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Client Sample ID: LT-15-2

Lab Sample ID: 440-161234-1

Date Collected: 09/27/16 13:08

Matrix: Solid

Date Received: 10/10/16 16:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND	F1	9.9		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Arsenic	**3.1**		3.0		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Barium	**99**		1.5		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Beryllium	ND		0.50		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Cadmium	ND		0.50		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Chromium	**15**		0.99		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Cobalt	**4.6**		0.99		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Copper	**10**		2.0		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Lead	**3.6**		2.0		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Molybdenum	ND		2.0		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Nickel	**7.9**		2.0		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Selenium	ND	^	3.0		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Thallium	ND		9.9		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Vanadium	**31**		0.99		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Zinc	**31**		5.0		mg/Kg		10/11/16 08:32	10/12/16 16:53	5
Silver	ND		1.5		mg/Kg		10/11/16 08:32	10/12/16 16:53	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/13/16 20:02	10/14/16 18:32	1

Client Sample ID: LT-15-12

Lab Sample ID: 440-161234-2

Date Collected: 09/27/16 13:15

Matrix: Solid

Date Received: 10/10/16 16:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		9.9		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Arsenic	**4.3**		3.0		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Barium	**23**		1.5		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Beryllium	ND		0.50		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Cadmium	ND		0.50		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Chromium	**9.2**		0.99		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Cobalt	**3.1**		0.99		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Copper	**11**		2.0		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Lead	**4.7**		2.0		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Molybdenum	ND		2.0		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Nickel	**6.2**		2.0		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Selenium	ND		3.0		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Thallium	ND		9.9		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Vanadium	**20**		0.99		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Zinc	**23**		5.0		mg/Kg		10/11/16 08:32	10/11/16 17:08	5
Silver	ND		1.5		mg/Kg		10/11/16 08:32	10/11/16 17:08	5

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/13/16 20:02	10/14/16 18:15	1

Method Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-161234-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL IRV
7471A	Mercury (CVAA)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-161234-1

Client Sample ID: LT-15-2

Lab Sample ID: 440-161234-1

Date Collected: 09/27/16 13:08

Matrix: Solid

Date Received: 10/10/16 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	361401	10/11/16 08:32	DT	TAL IRV
Total/NA	Analysis	6010B		5			361915	10/12/16 16:53	VS	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	362226	10/13/16 20:02	DB	TAL IRV
Total/NA	Analysis	7471A		1			362501	10/14/16 18:32	DB	TAL IRV

Client Sample ID: LT-15-12

Lab Sample ID: 440-161234-2

Date Collected: 09/27/16 13:15

Matrix: Solid

Date Received: 10/10/16 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	361401	10/11/16 08:32	DT	TAL IRV
Total/NA	Analysis	6010B		5			361606	10/11/16 17:08	ND	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	362226	10/13/16 20:02	DB	TAL IRV
Total/NA	Analysis	7471A		1			362484	10/14/16 18:15	DB	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-361401/1-A ^5
Matrix: Solid
Analysis Batch: 361606

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 361401

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		10		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Arsenic	ND		3.0		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Barium	ND		1.5		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Beryllium	ND		0.50		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Cadmium	ND		0.50		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Chromium	ND		1.0		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Cobalt	ND		1.0		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Copper	ND		2.0		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Lead	ND		2.0		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Molybdenum	ND		2.0		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Nickel	ND		2.0		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Selenium	ND		3.0		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Thallium	ND		10		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Vanadium	ND		1.0		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Zinc	ND		5.0		mg/Kg		10/11/16 08:32	10/11/16 16:54	5
Silver	ND		1.5		mg/Kg		10/11/16 08:32	10/11/16 16:54	5

Lab Sample ID: LCS 440-361401/2-A ^5
Matrix: Solid
Analysis Batch: 361606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 361401

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			49.3	45.8		mg/Kg		93	80 - 120		
Arsenic			49.3	42.9		mg/Kg		87	80 - 120		
Barium			49.3	44.8		mg/Kg		91	80 - 120		
Beryllium			49.3	42.6		mg/Kg		87	80 - 120		
Cadmium			49.3	42.8		mg/Kg		87	80 - 120		
Chromium			49.3	48.5		mg/Kg		98	80 - 120		
Cobalt			49.3	46.9		mg/Kg		95	80 - 120		
Copper			49.3	44.6		mg/Kg		91	80 - 120		
Lead			49.3	46.2		mg/Kg		94	80 - 120		
Molybdenum			49.3	48.6		mg/Kg		99	80 - 120		
Nickel			49.3	47.2		mg/Kg		96	80 - 120		
Selenium			49.3	39.3		mg/Kg		80	80 - 120		
Thallium			49.3	45.5		mg/Kg		92	80 - 120		
Vanadium			49.3	45.6		mg/Kg		93	80 - 120		
Zinc			49.3	42.3		mg/Kg		86	80 - 120		
Silver			24.6	21.5		mg/Kg		87	80 - 120		

Lab Sample ID: 440-161234-1 MS
Matrix: Solid
Analysis Batch: 361915

Client Sample ID: LT-15-2
Prep Type: Total/NA
Prep Batch: 361401

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony	ND	F1	49.3	24.0	F1	mg/Kg		49	75 - 125		
Arsenic	3.1		49.3	44.5		mg/Kg		84	75 - 125		
Barium	99		49.3	148		mg/Kg		99	75 - 125		
Beryllium	ND		49.3	41.9		mg/Kg		85	75 - 125		

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-161234-1 MS
Matrix: Solid
Analysis Batch: 361915

Client Sample ID: LT-15-2
Prep Type: Total/NA
Prep Batch: 361401

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	ND		49.3	41.3		mg/Kg		84	75 - 125
Chromium	15		49.3	60.7		mg/Kg		93	75 - 125
Cobalt	4.6		49.3	50.5		mg/Kg		93	75 - 125
Copper	10		49.3	57.0		mg/Kg		95	75 - 125
Lead	3.6		49.3	48.2		mg/Kg		90	75 - 125
Molybdenum	ND		49.3	46.1		mg/Kg		94	75 - 125
Nickel	7.9		49.3	54.9		mg/Kg		95	75 - 125
Selenium	ND	^	49.3	40.0	^	mg/Kg		81	75 - 125
Thallium	ND		49.3	43.1		mg/Kg		88	75 - 125
Vanadium	31		49.3	80.1		mg/Kg		100	75 - 125
Zinc	31		49.3	77.1		mg/Kg		93	75 - 125
Silver	ND		24.6	21.4		mg/Kg		87	75 - 125

Lab Sample ID: 440-161234-1 MSD
Matrix: Solid
Analysis Batch: 361915

Client Sample ID: LT-15-2
Prep Type: Total/NA
Prep Batch: 361401

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	ND	F1	49.8	24.2	F1	mg/Kg		49	75 - 125	1	20
Arsenic	3.1		49.8	44.2		mg/Kg		83	75 - 125	1	20
Barium	99		49.8	142		mg/Kg		86	75 - 125	4	20
Beryllium	ND		49.8	41.1		mg/Kg		83	75 - 125	2	20
Cadmium	ND		49.8	40.7		mg/Kg		82	75 - 125	2	20
Chromium	15		49.8	59.1		mg/Kg		89	75 - 125	3	20
Cobalt	4.6		49.8	49.7		mg/Kg		91	75 - 125	2	20
Copper	10		49.8	55.3		mg/Kg		91	75 - 125	3	20
Lead	3.6		49.8	47.3		mg/Kg		88	75 - 125	2	20
Molybdenum	ND		49.8	45.8		mg/Kg		92	75 - 125	1	20
Nickel	7.9		49.8	53.9		mg/Kg		93	75 - 125	2	20
Selenium	ND	^	49.8	39.8	^	mg/Kg		80	75 - 125	0	20
Thallium	ND		49.8	42.5		mg/Kg		85	75 - 125	2	20
Vanadium	31		49.8	76.9		mg/Kg		93	75 - 125	4	20
Zinc	31		49.8	73.7		mg/Kg		85	75 - 125	4	20
Silver	ND		24.9	21.0		mg/Kg		84	75 - 125	2	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-362226/1-A
Matrix: Solid
Analysis Batch: 362484

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 362226

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		10/13/16 20:02	10/14/16 17:57	1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 440-362226/2-A
Matrix: Solid
Analysis Batch: 362484

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 362226

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.800	0.846		mg/Kg		106	80 - 120		

Lab Sample ID: 440-161736-A-1-B MS
Matrix: Solid
Analysis Batch: 362484

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 362226

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.21		0.800	0.839		mg/Kg		79	70 - 130		

Lab Sample ID: 440-161736-A-1-C MSD
Matrix: Solid
Analysis Batch: 362484

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 362226

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.21		0.800	0.814		mg/Kg		76	70 - 130	3	20

Metals

Prep Batch: 361401

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-161234-1	LT-15-2	Total/NA	Solid	3050B	
440-161234-2	LT-15-12	Total/NA	Solid	3050B	
MB 440-361401/1-A ^5	Method Blank	Total/NA	Solid	3050B	
LCS 440-361401/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
440-161234-1 MS	LT-15-2	Total/NA	Solid	3050B	
440-161234-1 MSD	LT-15-2	Total/NA	Solid	3050B	

Analysis Batch: 361606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-161234-2	LT-15-12	Total/NA	Solid	6010B	361401
MB 440-361401/1-A ^5	Method Blank	Total/NA	Solid	6010B	361401
LCS 440-361401/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	361401

Analysis Batch: 361915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-161234-1	LT-15-2	Total/NA	Solid	6010B	361401
440-161234-1 MS	LT-15-2	Total/NA	Solid	6010B	361401
440-161234-1 MSD	LT-15-2	Total/NA	Solid	6010B	361401

Prep Batch: 362226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-161234-1	LT-15-2	Total/NA	Solid	7471A	
440-161234-2	LT-15-12	Total/NA	Solid	7471A	
MB 440-362226/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 440-362226/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-161736-A-1-B MS	Matrix Spike	Total/NA	Solid	7471A	
440-161736-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Analysis Batch: 362484

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-161234-2	LT-15-12	Total/NA	Solid	7471A	362226
MB 440-362226/1-A	Method Blank	Total/NA	Solid	7471A	362226
LCS 440-362226/2-A	Lab Control Sample	Total/NA	Solid	7471A	362226
440-161736-A-1-B MS	Matrix Spike	Total/NA	Solid	7471A	362226
440-161736-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	362226

Analysis Batch: 362501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-161234-1	LT-15-2	Total/NA	Solid	7471A	362226

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Agua Mansa Commerce Park

TestAmerica Job ID: 440-161234-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-13-16 *
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 16-001r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17 *
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Avenue
Suite 100
Irvine, CA 92614-5843
phone 949.261.1022 fax 949.260.3299

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☑ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Drew Lassen	Date: 10/10/16	COC No:
Langan Engineering and Environmental Services	Tel/Fax: (714) 616-0163	Lab Contact:	Carrier:	_____ of _____ COCs
32 Executive Park Drive	**Analysis Turnaround Time**			Sampler:
Irvine, CA 92614	☑ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
(805) 708-7200	TAT if different from Below _____			Walk-in Client:
(xxx) xxx-xxxx FAX	☐ 2 weeks			Lab Sampling:
Project Name: Agua Mansa Commerce Park	☑ 1 week			
Site: Phase II Environmental	☐ 2 days			Job / SDG No.:
P O # 700045402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	TPH - EPA Method 8015(M)	VOCs - EPA Method 8260B	SVOCs - EPA Method 8270C	Title 22 Metals	PCBs - EPA Method 8080	Sample Specific Notes:
LT-15-2	9/27/16	1308	G	S	1						X		
LT-15-12	9/27/16	1315	G	S	1						X		

440-161234 Chain of Custody

WS 10-10-16 1710

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____		Therm ID No.:_____
Relinquished by:	Company: Langan	Date/Time: 10/10/16 1200	Received by:	Company: TAI	Date/Time: 10/10/16 1200
Relinquished by:	Company: TAI	Date/Time: 10/10/16 1645	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TAI	Date/Time: 10/10/16 16:45

Form No. CA-C-WI-002, Rev. 4.7, dated 11/02/2015

TK74 29/23

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Srvcs

Job Number: 440-161234-1

Login Number: 161234

List Source: TestAmerica Irvine

List Number: 1

Creator: Avila, Stephanie 1

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Field on COC is blank.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-181815-1
Client Project/Site: Crestmore Catch Basin

For:
Langan Engineering & Environmental Srvcs
32 Executive Park
Suite 130
Irvine, California 92614

Attn: Drew Lassen

Authorized for release by:
4/20/2017 12:20:18 PM

Camille Murray, Project Manager I
(949)261-1022
camille.murray@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Sample Summary 3
Case Narrative 4
Client Sample Results 5
Method Summary 11
Lab Chronicle 12
QC Sample Results 14
QC Association Summary 19
Definitions/Glossary 22
Certification Summary 23
Chain of Custody 24
Receipt Checklists 25

Sample Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Crestmore Catch Basin

TestAmerica Job ID: 440-181815-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-181815-1	CB-TP-1-25	Solid	04/10/17 15:30	04/11/17 10:10
440-181815-2	CB-TP-1-10.5	Solid	04/10/17 15:25	04/11/17 10:10
440-181815-3	CB-TP-2-9	Solid	04/10/17 16:08	04/11/17 10:10
440-181815-4	CB-TP-3-3	Solid	04/10/17 16:22	04/11/17 10:10
440-181815-5	CB-TP-3-9	Solid	04/10/17 16:29	04/11/17 10:10
440-181815-6	CB-Outfall-1-0	Solid	04/10/17 15:48	04/11/17 10:10

Job ID: 440-181815-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-181815-1

Comments
No additional comments.

Receipt
The samples were received on 4/11/2017 10:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.9º C.

HPLC/IC
Method(s) 7199: The matrix spike insoluble (MSI) recovery for preparation batch 440-400195 and analytical batch 440-400684 was outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC VOA
Method(s) 8015B: Surrogate recovery for the following sample was outside control limits: (440-182199-A-1 MS) and (440-182199-A-1 MSD). Evidence of matrix interference is present; therefore, re-analysis was not performed.

Method(s) 8015B: The matrix spike and matrix spike duplicate (MS/MSD) recoveries for the following sample associated with 400728 were outside control limits: (440-182199-A-1 MS) and (440-182199-A-1 MSD). The associated laboratory control sample (LCS) and laboratory control sample duplicate recoveries met acceptance criteria.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
Method(s) 6020: The post digestion spike % recovery for associated with batch 440-400475 was outside of control limits for Nickel and Selenium. Matrix interference is suspected.

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 440-399621 and analytical batch 440-400475 were outside control limits for Multiple analytes. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) was within acceptance limits.

Method(s) 6020: The serial dilution performed for the following sample associated with batch 440-400475 was outside control limits for Barium: (440-181736-A-1-E SD)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample ID: CB-TP-1-25

Date Collected: 04/10/17 15:30
Date Received: 04/11/17 10:10

Lab Sample ID: 440-181815-1
Matrix: Solid

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		390		ug/Kg			04/18/17 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*65 - 140*		*04/18/17 17:34*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		04/13/17 11:34	04/14/17 19:53	1
C23-C40	**62**		5.0		mg/Kg		04/13/17 11:34	04/14/17 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*59*		*40 - 140*	*04/13/17 11:34*	*04/14/17 19:53*	*1*

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND	F1	0.30		mg/Kg		04/14/17 11:16	04/18/17 05:33	3

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Arsenic	**2.7**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Barium	**93**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Beryllium	ND		0.30		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Cadmium	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Chromium	**13**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Cobalt	**4.2**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Copper	**9.4**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Lead	**13**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Molybdenum	ND		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Nickel	**6.3**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Selenium	ND		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Thallium	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Vanadium	**27**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Zinc	**40**		10		mg/Kg		04/12/17 07:38	04/14/17 03:28	20
Antimony	ND		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:28	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		04/17/17 20:55	04/18/17 17:53	1

Client Sample ID: CB-TP-1-10.5

Date Collected: 04/10/17 15:25
Date Received: 04/11/17 10:10

Lab Sample ID: 440-181815-2
Matrix: Solid

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			04/18/17 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*65 - 140*		*04/18/17 18:01*	*1*

Client Sample ID: CB-TP-1-10.5

Date Collected: 04/10/17 15:25
Date Received: 04/11/17 10:10

Lab Sample ID: 440-181815-2

Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		04/13/17 11:34	04/14/17 22:42	1
C23-C40	ND		5.0		mg/Kg		04/13/17 11:34	04/14/17 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*86*		*40 - 140*	*04/13/17 11:34*	*04/14/17 22:42*	*1*

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.30		mg/Kg		04/14/17 11:16	04/19/17 02:32	3

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Arsenic	**3.4**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Barium	**23**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Beryllium	ND		0.30		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Cadmium	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Chromium	**9.0**		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Cobalt	**3.8**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Copper	**7.7**		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Lead	**2.9**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Molybdenum	ND		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Nickel	**7.1**		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Selenium	ND		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Thallium	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Vanadium	**23**		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Zinc	**25**		9.9		mg/Kg		04/12/17 07:38	04/14/17 03:31	20
Antimony	ND		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:31	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		04/17/17 20:55	04/18/17 17:56	1

Client Sample ID: CB-TP-2-9

Date Collected: 04/10/17 16:08
Date Received: 04/11/17 10:10

Lab Sample ID: 440-181815-3

Matrix: Solid

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			04/18/17 18:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*65 - 140*		*04/18/17 18:28*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		04/13/17 11:34	04/15/17 00:00	1
C23-C40	ND		5.0		mg/Kg		04/13/17 11:34	04/15/17 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*94*		*40 - 140*	*04/13/17 11:34*	*04/15/17 00:00*	*1*

Client Sample ID: CB-TP-2-9

Date Collected: 04/10/17 16:08
Date Received: 04/11/17 10:10

Lab Sample ID: 440-181815-3

Matrix: Solid

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.30		mg/Kg		04/14/17 11:16	04/19/17 02:44	3

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Arsenic	**2.9**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Barium	**47**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Beryllium	ND		0.30		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Cadmium	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Chromium	**9.5**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Cobalt	**4.1**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Copper	**8.7**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Lead	**3.0**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Molybdenum	ND		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Nickel	**6.8**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Selenium	ND		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Thallium	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Vanadium	**24**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Zinc	**27**		10		mg/Kg		04/12/17 07:38	04/14/17 03:34	20
Antimony	ND		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:34	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		04/17/17 20:55	04/18/17 17:58	1

Client Sample ID: CB-TP-3-3

Date Collected: 04/10/17 16:22
Date Received: 04/11/17 10:10

Lab Sample ID: 440-181815-4

Matrix: Solid

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			04/18/17 18:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*65 - 140*		*04/18/17 18:56*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		04/13/17 11:34	04/14/17 23:40	1
C23-C40	ND		5.0		mg/Kg		04/13/17 11:34	04/14/17 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*83*		*40 - 140*	*04/13/17 11:34*	*04/14/17 23:40*	*1*

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.30		mg/Kg		04/14/17 11:16	04/19/17 02:55	3

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:37	20

Client Sample ID: CB-TP-3-3

Date Collected: 04/10/17 16:22
Date Received: 04/11/17 10:10

Lab Sample ID: 440-181815-4
Matrix: Solid

Method: 6020 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.7**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Barium	**96**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Beryllium	ND		0.30		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Cadmium	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Chromium	**15**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Cobalt	**5.1**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Copper	**9.3**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Lead	**2.9**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Molybdenum	ND		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Nickel	**8.8**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Selenium	ND		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Thallium	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Vanadium	**30**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Zinc	**33**		10		mg/Kg		04/12/17 07:38	04/14/17 03:37	20
Antimony	ND		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:37	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		04/17/17 20:55	04/18/17 18:01	1

Client Sample ID: CB-TP-3-9

Date Collected: 04/10/17 16:29
Date Received: 04/11/17 10:10

Lab Sample ID: 440-181815-5
Matrix: Solid

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			04/18/17 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*65 - 140*		*04/18/17 19:24*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		04/13/17 11:34	04/14/17 23:01	1
C23-C40	ND		5.0		mg/Kg		04/13/17 11:34	04/14/17 23:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*85*		*40 - 140*	*04/13/17 11:34*	*04/14/17 23:01*	*1*

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.30		mg/Kg		04/14/17 11:16	04/19/17 03:07	3

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Arsenic	**1.4**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Barium	**43**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Beryllium	ND		0.30		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Cadmium	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Chromium	**6.7**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:40	20

Client Sample ID: CB-TP-3-9

Date Collected: 04/10/17 16:29
Date Received: 04/11/17 10:10

Lab Sample ID: 440-181815-5
Matrix: Solid

Method: 6020 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**2.4**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Copper	**6.3**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Lead	**3.7**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Molybdenum	ND		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Nickel	**4.1**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Selenium	ND		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Thallium	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Vanadium	**14**		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Zinc	**18**		10		mg/Kg		04/12/17 07:38	04/14/17 03:40	20
Antimony	ND		1.0		mg/Kg		04/12/17 07:38	04/14/17 03:40	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		04/17/17 20:55	04/18/17 18:04	1

Client Sample ID: CB-Outfall-1-0

Date Collected: 04/10/17 15:48
Date Received: 04/11/17 10:10

Lab Sample ID: 440-181815-6
Matrix: Solid

Method: 8015B - Gasoline Range Organics - (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		390		ug/Kg			04/18/17 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*65 - 140*		*04/18/17 19:51*	*1*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		04/13/17 11:34	04/15/17 00:19	1
C23-C40	**35**		5.0		mg/Kg		04/13/17 11:34	04/15/17 00:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*78*		*40 - 140*	*04/13/17 11:34*	*04/15/17 00:19*	*1*

Method: 7199 - Chromium, Hexavalent (IC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.30		mg/Kg		04/14/17 11:16	04/19/17 03:19	3

Method: 6020 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Arsenic	**2.8**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Barium	**26**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Beryllium	ND		0.30		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Cadmium	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Chromium	**7.1**		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Cobalt	**3.7**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Copper	**6.7**		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Lead	**2.6**		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Molybdenum	ND		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Nickel	**5.1**		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:43	20

Client: Langan Engineering & Environmental Srvcs
Project/Site: Crestmore Catch Basin

TestAmerica Job ID: 440-181815-1

Client Sample ID: CB-Outfall-1-0
Date Collected: 04/10/17 15:48
Date Received: 04/11/17 10:10

Lab Sample ID: 440-181815-6
Matrix: Solid

Method: 6020 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Thallium	ND		0.50		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Vanadium	**20**		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Zinc	**25**		9.9		mg/Kg		04/12/17 07:38	04/14/17 03:43	20
Antimony	ND		0.99		mg/Kg		04/12/17 07:38	04/14/17 03:43	20

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		04/17/17 20:55	04/18/17 18:12	1

Method Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Crestmore Catch Basin

TestAmerica Job ID: 440-181815-1

Method	Method Description	Protocol	Laboratory
8015B	Gasoline Range Organics - (GC)	SW846	TAL IRV
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
7199	Chromium, Hexavalent (IC)	SW846	TAL IRV
6020	Metals (ICP/MS)	SW846	TAL IRV
7471A	Mercury (CVAA)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Crestmore Catch Basin

TestAmerica Job ID: 440-181815-1

Client Sample ID: CB-TP-1-25

Lab Sample ID: 440-181815-1

Date Collected: 04/10/17 15:30

Matrix: Solid

Date Received: 04/11/17 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.08 g	10 mL	400728	04/18/17 17:34	IM	TAL IRV
Total/NA	Prep	3546			15.01 g	1 mL	399942	04/13/17 11:34	VA	TAL IRV
Total/NA	Analysis	8015B		1			400208	04/14/17 19:53	LMB	TAL IRV
Total/NA	Prep	3060A			2.47 g	100 mL	400195	04/14/17 11:16	TMB	TAL IRV
Total/NA	Analysis	7199		3			400448	04/18/17 05:33	MN	TAL IRV
Total/NA	Prep	3050B			2.00 g	50 mL	399621	04/12/17 07:38	DT	TAL IRV
Total/NA	Analysis	6020		20			400092	04/14/17 03:28	RC	TAL IRV
Total/NA	Prep	7471A			0.51 g	50 mL	399703	04/17/17 20:55	DB	TAL IRV
Total/NA	Analysis	7471A		1			400915	04/18/17 17:53	DB	TAL IRV

Client Sample ID: CB-TP-1-10.5

Lab Sample ID: 440-181815-2

Date Collected: 04/10/17 15:25

Matrix: Solid

Date Received: 04/11/17 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.06 g	10 mL	400728	04/18/17 18:01	IM	TAL IRV
Total/NA	Prep	3546			15.03 g	1 mL	399942	04/13/17 11:34	VA	TAL IRV
Total/NA	Analysis	8015B		1			400206	04/14/17 22:42	LMB	TAL IRV
Total/NA	Prep	3060A			2.47 g	100 mL	400195	04/14/17 11:16	TMB	TAL IRV
Total/NA	Analysis	7199		3			400684	04/19/17 02:32	MN	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	399621	04/12/17 07:38	DT	TAL IRV
Total/NA	Analysis	6020		20			400092	04/14/17 03:31	RC	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	399703	04/17/17 20:55	DB	TAL IRV
Total/NA	Analysis	7471A		1			400915	04/18/17 17:56	DB	TAL IRV

Client Sample ID: CB-TP-2-9

Lab Sample ID: 440-181815-3

Date Collected: 04/10/17 16:08

Matrix: Solid

Date Received: 04/11/17 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.01 g	10 mL	400728	04/18/17 18:28	IM	TAL IRV
Total/NA	Prep	3546			15.04 g	1 mL	399942	04/13/17 11:34	VA	TAL IRV
Total/NA	Analysis	8015B		1			400206	04/15/17 00:00	LMB	TAL IRV
Total/NA	Prep	3060A			2.50 g	100 mL	400195	04/14/17 11:16	TMB	TAL IRV
Total/NA	Analysis	7199		3			400684	04/19/17 02:44	MN	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	399621	04/12/17 07:38	DT	TAL IRV
Total/NA	Analysis	6020		20			400092	04/14/17 03:34	RC	TAL IRV
Total/NA	Prep	7471A			0.49 g	50 mL	399703	04/17/17 20:55	DB	TAL IRV
Total/NA	Analysis	7471A		1			400915	04/18/17 17:58	DB	TAL IRV

Lab Chronicle

Client: Langan Engineering & Environmental Srvcs
Project/Site: Crestmore Catch Basin

TestAmerica Job ID: 440-181815-1

Client Sample ID: CB-TP-3-3

Lab Sample ID: 440-181815-4

Date Collected: 04/10/17 16:22
Matrix: Solid
Date Received: 04/11/17 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.05 g	10 mL	400728	04/18/17 18:56	IM	TAL IRV
Total/NA	Prep	3546			15.03 g	1 mL	399942	04/13/17 11:34	VA	TAL IRV
Total/NA	Analysis	8015B		1			400206	04/14/17 23:40	LMB	TAL IRV
Total/NA	Prep	3060A			2.51 g	100 mL	400195	04/14/17 11:16	TMB	TAL IRV
Total/NA	Analysis	7199		3			400684	04/19/17 02:55	MN	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	399621	04/12/17 07:38	DT	TAL IRV
Total/NA	Analysis	6020		20			400092	04/14/17 03:37	RC	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	399703	04/17/17 20:55	DB	TAL IRV
Total/NA	Analysis	7471A		1			400915	04/18/17 18:01	DB	TAL IRV

Client Sample ID: CB-TP-3-9

Lab Sample ID: 440-181815-5

Date Collected: 04/10/17 16:29
Matrix: Solid
Date Received: 04/11/17 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.03 g	10 mL	400728	04/18/17 19:24	IM	TAL IRV
Total/NA	Prep	3546			15.03 g	1 mL	399942	04/13/17 11:34	VA	TAL IRV
Total/NA	Analysis	8015B		1			400206	04/14/17 23:01	LMB	TAL IRV
Total/NA	Prep	3060A			2.46 g	100 mL	400195	04/14/17 11:16	TMB	TAL IRV
Total/NA	Analysis	7199		3			400684	04/19/17 03:07	MN	TAL IRV
Total/NA	Prep	3050B			2.01 g	50 mL	399621	04/12/17 07:38	DT	TAL IRV
Total/NA	Analysis	6020		20			400092	04/14/17 03:40	RC	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	399703	04/17/17 20:55	DB	TAL IRV
Total/NA	Analysis	7471A		1			400915	04/18/17 18:04	DB	TAL IRV

Client Sample ID: CB-Outfall-1-0

Lab Sample ID: 440-181815-6

Date Collected: 04/10/17 15:48
Matrix: Solid
Date Received: 04/11/17 10:10

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015B		1	5.07 g	10 mL	400728	04/18/17 19:51	IM	TAL IRV
Total/NA	Prep	3546			15.03 g	1 mL	399942	04/13/17 11:34	VA	TAL IRV
Total/NA	Analysis	8015B		1			400206	04/15/17 00:19	LMB	TAL IRV
Total/NA	Prep	3060A			2.51 g	100 mL	400195	04/14/17 11:16	TMB	TAL IRV
Total/NA	Analysis	7199		3			400684	04/19/17 03:19	MN	TAL IRV
Total/NA	Prep	3050B			2.02 g	50 mL	399621	04/12/17 07:38	DT	TAL IRV
Total/NA	Analysis	6020		20			400092	04/14/17 03:43	RC	TAL IRV
Total/NA	Prep	7471A			0.50 g	50 mL	399703	04/17/17 20:55	DB	TAL IRV
Total/NA	Analysis	7471A		1			400915	04/18/17 18:12	DB	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8015B - Gasoline Range Organics - (GC)

Lab Sample ID: MB 440-400728/5
Matrix: Solid
Analysis Batch: 400728

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
GRO (C4-C12)	ND		400		ug/Kg			04/18/17 10:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*65 - 140*		*04/18/17 10:48*	*1*

Lab Sample ID: LCS 440-400728/3
Matrix: Solid
Analysis Batch: 400728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)			1600	1160		ug/Kg		72	70 - 135		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*65 - 140*

Lab Sample ID: LCSD 440-400728/4
Matrix: Solid
Analysis Batch: 400728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)			1600	1200		ug/Kg		75	70 - 135	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*83*		*65 - 140*

Lab Sample ID: 440-182199-A-1 MS
Matrix: Solid
Analysis Batch: 400728

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
GRO (C4-C12)	480	F1	1590	1150	F1	ug/Kg		42	60 - 140		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*58*	*X*	*65 - 140*

Lab Sample ID: 440-182199-A-1 MSD
Matrix: Solid
Analysis Batch: 400728

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
GRO (C4-C12)	480	F1	1580	1320	F1	ug/Kg		53	60 - 140	14	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*59*	*X*	*65 - 140*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-399942/1-A
Matrix: Solid
Analysis Batch: 400208

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 399942

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
C13-C22	ND		5.0		mg/Kg		04/13/17 11:34	04/14/17 18:24	1
C23-C40	ND		5.0		mg/Kg		04/13/17 11:34	04/14/17 18:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*80*		*40 - 140*	*04/13/17 11:34*	*04/14/17 18:24*	*1*

Lab Sample ID: LCS 440-399942/2-A
Matrix: Solid
Analysis Batch: 400208

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 399942

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28			65.3	54.0		mg/Kg		83	45 - 115		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*84*		*40 - 140*

Lab Sample ID: 440-181815-1 MS
Matrix: Solid
Analysis Batch: 400208

Client Sample ID: CB-TP-1-25
Prep Type: Total/NA
Prep Batch: 399942

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
C10-C28	23		65.2	67.0		mg/Kg		67	40 - 120		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
n-Octacosane	*71*		*40 - 140*

Lab Sample ID: 440-181815-1 MSD
Matrix: Solid
Analysis Batch: 400208

Client Sample ID: CB-TP-1-25
Prep Type: Total/NA
Prep Batch: 399942

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C10-C28	23		65.2	61.1		mg/Kg		58	40 - 120	9	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*67*		*40 - 140*

Method: 7199 - Chromium, Hexavalent (IC)

Lab Sample ID: MB 440-400195/1-A
Matrix: Solid
Analysis Batch: 400448

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 400195

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.30		mg/Kg		04/14/17 11:16	04/18/17 05:10	3

Method: 7199 - Chromium, Hexavalent (IC) (Continued)

Lab Sample ID: LCS 440-400195/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 400448 — **Prep Batch: 400195**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	39.4	34.8		mg/Kg		88	80 - 120

Lab Sample ID: 440-181815-1 MS — **Client Sample ID: CB-TP-1-25**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 400448 — **Prep Batch: 400195**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	ND	F1	40.0	29.9		mg/Kg		75	55 - 110

Lab Sample ID: 440-181815-1 MSD — **Client Sample ID: CB-TP-1-25**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 400448 — **Prep Batch: 400195**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cr (VI)	ND	F1	40.3	28.0		mg/Kg		69	55 - 110	6	20

Lab Sample ID: 440-181815-1 MSI — **Client Sample ID: CB-TP-1-25**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 400684 — **Prep Batch: 400195**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	ND	F1	1160	614	F1	mg/Kg		53	55 - 110

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 440-399621/1-A ^20 — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 400475 — **Prep Batch: 399621**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.50	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Arsenic	ND		0.50	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Barium	ND		0.50	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Beryllium	ND		0.30	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Cadmium	ND		0.50	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Chromium	ND		1.0	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Cobalt	ND		0.50	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Copper	ND		1.0	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Lead	ND		0.50	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Molybdenum	ND		1.0	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Nickel	ND		1.0	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Selenium	ND		1.0	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Thallium	ND		0.50	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Vanadium	ND		1.0	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Zinc	ND		10	mg/Kg		04/12/17 07:38	04/14/17 12:42	20
Antimony	ND		1.0	mg/Kg		04/12/17 07:38	04/14/17 12:42	20

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 440-399621/2-A ^20
Matrix: Solid
Analysis Batch: 400475

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 399621

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	24.9	25.5		mg/Kg		103	80 - 120
Arsenic	49.8	52.5		mg/Kg		106	80 - 120
Barium	49.8	53.5		mg/Kg		108	80 - 120
Beryllium	49.8	50.9		mg/Kg		102	80 - 120
Cadmium	49.8	54.0		mg/Kg		109	80 - 120
Chromium	49.8	50.7		mg/Kg		102	80 - 120
Cobalt	49.8	51.1		mg/Kg		103	80 - 120
Copper	49.8	51.0		mg/Kg		103	80 - 120
Lead	49.8	53.8		mg/Kg		108	80 - 120
Molybdenum	49.8	47.7		mg/Kg		96	80 - 120
Nickel	49.8	50.2		mg/Kg		101	80 - 120
Selenium	49.8	54.3		mg/Kg		109	80 - 120
Thallium	49.8	53.2		mg/Kg		107	80 - 120
Vanadium	49.8	50.0		mg/Kg		101	80 - 120
Zinc	49.8	54.7		mg/Kg		110	80 - 120
Antimony	49.8	51.4		mg/Kg		103	80 - 120

Lab Sample ID: 440-181736-A-1-F MS ^100
Matrix: Solid
Analysis Batch: 400475

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 399621

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	ND		25.0	22.6		mg/Kg		90	80 - 120
Arsenic	4.6		50.0	53.5		mg/Kg		98	80 - 120
Barium	83		50.0	123		mg/Kg		81	80 - 120
Beryllium	ND		50.0	48.3		mg/Kg		97	80 - 120
Cadmium	ND		50.0	50.7		mg/Kg		101	80 - 120
Chromium	250	F2	50.0	295	4	mg/Kg		93	80 - 120
Cobalt	27	F1 F2	50.0	175	F1	mg/Kg		296	80 - 120
Copper	55	F1 F2	50.0	127	F1	mg/Kg		144	80 - 120
Lead	5.5		50.0	53.5		mg/Kg		96	80 - 120
Molybdenum	ND	F1	50.0	38.6	F1	mg/Kg		77	80 - 120
Nickel	180	F1	50.0	242	F1	mg/Kg		125	80 - 120
Selenium	ND		50.0	54.4		mg/Kg		106	80 - 120
Thallium	ND		50.0	46.5		mg/Kg		93	80 - 120
Vanadium	59	F1	50.0	129	F1	mg/Kg		139	80 - 120
Zinc	95	F1	50.0	156	F1	mg/Kg		122	80 - 120
Antimony	ND	F1	50.0	20.3	F1	mg/Kg		41	80 - 120

Lab Sample ID: 440-181736-A-1-G MSD ^100
Matrix: Solid
Analysis Batch: 400475

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 399621

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silver	ND		24.8	23.2		mg/Kg		94	80 - 120	3	20
Arsenic	4.6		49.5	52.4		mg/Kg		97	80 - 120	2	20
Barium	83		49.5	130		mg/Kg		95	80 - 120	5	20
Beryllium	ND		49.5	47.6		mg/Kg		96	80 - 120	1	20

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 440-181736-A-1-G MSD ^100
Matrix: Solid
Analysis Batch: 400475

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 399621

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	ND		49.5	51.5		mg/Kg		104	80 - 120	2	20
Chromium	250	F2	49.5	240	4 F2	mg/Kg		-19	80 - 120	21	20
Cobalt	27	F1 F2	49.5	81.1	F2	mg/Kg		108	80 - 120	74	20
Copper	55	F1 F2	49.5	91.9	F1 F2	mg/Kg		75	80 - 120	32	20
Lead	5.5		49.5	53.2		mg/Kg		96	80 - 120	1	20
Molybdenum	ND	F1	49.5	39.8		mg/Kg		80	80 - 120	3	20
Nickel	180	F1	49.5	251	F1	mg/Kg		143	80 - 120	4	20
Selenium	ND		49.5	56.1		mg/Kg		111	80 - 120	3	20
Thallium	ND		49.5	46.4		mg/Kg		94	80 - 120	0	20
Vanadium	59	F1	49.5	121	F1	mg/Kg		125	80 - 120	6	20
Zinc	95	F1	49.5	140		mg/Kg		91	80 - 120	11	20
Antimony	ND	F1	49.5	22.2	F1	mg/Kg		45	80 - 120	9	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-399703/1-A
Matrix: Solid
Analysis Batch: 400915

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 399703

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		04/17/17 20:55	04/18/17 17:07	1

Lab Sample ID: LCS 440-399703/2-A
Matrix: Solid
Analysis Batch: 400915

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 399703

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.800	0.827		mg/Kg		103	80 - 120		

Lab Sample ID: 440-182115-A-1-E MS
Matrix: Solid
Analysis Batch: 400915

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 399703

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	0.13		0.800	0.865		mg/Kg		92	70 - 130		

Lab Sample ID: 440-182115-A-1-F MSD
Matrix: Solid
Analysis Batch: 400915

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 399703

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.13		0.800	0.807		mg/Kg		84	70 - 130	7	20

GC VOA

Analysis Batch: 400728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-181815-1	CB-TP-1-25	Total/NA	Solid	8015B	
440-181815-2	CB-TP-1-10.5	Total/NA	Solid	8015B	
440-181815-3	CB-TP-2-9	Total/NA	Solid	8015B	
440-181815-4	CB-TP-3-3	Total/NA	Solid	8015B	
440-181815-5	CB-TP-3-9	Total/NA	Solid	8015B	
440-181815-6	CB-Outfall-1-0	Total/NA	Solid	8015B	
MB 440-400728/5	Method Blank	Total/NA	Solid	8015B	
LCS 440-400728/3	Lab Control Sample	Total/NA	Solid	8015B	
LCSD 440-400728/4	Lab Control Sample Dup	Total/NA	Solid	8015B	
440-182199-A-1 MS	Matrix Spike	Total/NA	Solid	8015B	
440-182199-A-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	

GC Semi VOA

Prep Batch: 399942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-181815-1	CB-TP-1-25	Total/NA	Solid	3546	
440-181815-2	CB-TP-1-10.5	Total/NA	Solid	3546	
440-181815-3	CB-TP-2-9	Total/NA	Solid	3546	
440-181815-4	CB-TP-3-3	Total/NA	Solid	3546	
440-181815-5	CB-TP-3-9	Total/NA	Solid	3546	
440-181815-6	CB-Outfall-1-0	Total/NA	Solid	3546	
MB 440-399942/1-A	Method Blank	Total/NA	Solid	3546	
LCS 440-399942/2-A	Lab Control Sample	Total/NA	Solid	3546	
440-181815-1 MS	CB-TP-1-25	Total/NA	Solid	3546	
440-181815-1 MSD	CB-TP-1-25	Total/NA	Solid	3546	

Analysis Batch: 400206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-181815-2	CB-TP-1-10.5	Total/NA	Solid	8015B	399942
440-181815-3	CB-TP-2-9	Total/NA	Solid	8015B	399942
440-181815-4	CB-TP-3-3	Total/NA	Solid	8015B	399942
440-181815-5	CB-TP-3-9	Total/NA	Solid	8015B	399942
440-181815-6	CB-Outfall-1-0	Total/NA	Solid	8015B	399942

Analysis Batch: 400208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-181815-1	CB-TP-1-25	Total/NA	Solid	8015B	399942
MB 440-399942/1-A	Method Blank	Total/NA	Solid	8015B	399942
LCS 440-399942/2-A	Lab Control Sample	Total/NA	Solid	8015B	399942
440-181815-1 MS	CB-TP-1-25	Total/NA	Solid	8015B	399942
440-181815-1 MSD	CB-TP-1-25	Total/NA	Solid	8015B	399942

HPLC/IC

Prep Batch: 400195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-181815-1	CB-TP-1-25	Total/NA	Solid	3060A	
440-181815-2	CB-TP-1-10.5	Total/NA	Solid	3060A	
440-181815-3	CB-TP-2-9	Total/NA	Solid	3060A	

HPLC/IC (Continued)

Prep Batch: 400195 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-181815-4	CB-TP-3-3	Total/NA	Solid	3060A	
440-181815-5	CB-TP-3-9	Total/NA	Solid	3060A	
440-181815-6	CB-Outfall-1-0	Total/NA	Solid	3060A	
MB 440-400195/1-A	Method Blank	Total/NA	Solid	3060A	
LCS 440-400195/2-A	Lab Control Sample	Total/NA	Solid	3060A	
440-181815-1 MS	CB-TP-1-25	Total/NA	Solid	3060A	
440-181815-1 MSD	CB-TP-1-25	Total/NA	Solid	3060A	
440-181815-1 MSI	CB-TP-1-25	Total/NA	Solid	3060A	

Analysis Batch: 400448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-181815-1	CB-TP-1-25	Total/NA	Solid	7199	400195
MB 440-400195/1-A	Method Blank	Total/NA	Solid	7199	400195
LCS 440-400195/2-A	Lab Control Sample	Total/NA	Solid	7199	400195
440-181815-1 MS	CB-TP-1-25	Total/NA	Solid	7199	400195
440-181815-1 MSD	CB-TP-1-25	Total/NA	Solid	7199	400195

Analysis Batch: 400684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-181815-2	CB-TP-1-10.5	Total/NA	Solid	7199	400195
440-181815-3	CB-TP-2-9	Total/NA	Solid	7199	400195
440-181815-4	CB-TP-3-3	Total/NA	Solid	7199	400195
440-181815-5	CB-TP-3-9	Total/NA	Solid	7199	400195
440-181815-6	CB-Outfall-1-0	Total/NA	Solid	7199	400195
440-181815-1 MSI	CB-TP-1-25	Total/NA	Solid	7199	400195

Metals

Prep Batch: 399621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-181815-1	CB-TP-1-25	Total/NA	Solid	3050B	
440-181815-2	CB-TP-1-10.5	Total/NA	Solid	3050B	
440-181815-3	CB-TP-2-9	Total/NA	Solid	3050B	
440-181815-4	CB-TP-3-3	Total/NA	Solid	3050B	
440-181815-5	CB-TP-3-9	Total/NA	Solid	3050B	
440-181815-6	CB-Outfall-1-0	Total/NA	Solid	3050B	
MB 440-399621/1-A ^20	Method Blank	Total/NA	Solid	3050B	
LCS 440-399621/2-A ^20	Lab Control Sample	Total/NA	Solid	3050B	
440-181736-A-1-F MS ^100	Matrix Spike	Total/NA	Solid	3050B	
440-181736-A-1-G MSD ^100	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Prep Batch: 399703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-181815-1	CB-TP-1-25	Total/NA	Solid	7471A	
440-181815-2	CB-TP-1-10.5	Total/NA	Solid	7471A	
440-181815-3	CB-TP-2-9	Total/NA	Solid	7471A	
440-181815-4	CB-TP-3-3	Total/NA	Solid	7471A	
440-181815-5	CB-TP-3-9	Total/NA	Solid	7471A	
440-181815-6	CB-Outfall-1-0	Total/NA	Solid	7471A	
MB 440-399703/1-A	Method Blank	Total/NA	Solid	7471A	

Metals (Continued)

Prep Batch: 399703 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-399703/2-A	Lab Control Sample	Total/NA	Solid	7471A	
440-182115-A-1-E MS	Matrix Spike	Total/NA	Solid	7471A	
440-182115-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	

Analysis Batch: 400092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-181815-1	CB-TP-1-25	Total/NA	Solid	6020	399621
440-181815-2	CB-TP-1-10.5	Total/NA	Solid	6020	399621
440-181815-3	CB-TP-2-9	Total/NA	Solid	6020	399621
440-181815-4	CB-TP-3-3	Total/NA	Solid	6020	399621
440-181815-5	CB-TP-3-9	Total/NA	Solid	6020	399621
440-181815-6	CB-Outfall-1-0	Total/NA	Solid	6020	399621

Analysis Batch: 400475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 440-399621/1-A ^20	Method Blank	Total/NA	Solid	6020	399621
LCS 440-399621/2-A ^20	Lab Control Sample	Total/NA	Solid	6020	399621
440-181736-A-1-F MS ^100	Matrix Spike	Total/NA	Solid	6020	399621
440-181736-A-1-G MSD ^100	Matrix Spike Duplicate	Total/NA	Solid	6020	399621

Analysis Batch: 400915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-181815-1	CB-TP-1-25	Total/NA	Solid	7471A	399703
440-181815-2	CB-TP-1-10.5	Total/NA	Solid	7471A	399703
440-181815-3	CB-TP-2-9	Total/NA	Solid	7471A	399703
440-181815-4	CB-TP-3-3	Total/NA	Solid	7471A	399703
440-181815-5	CB-TP-3-9	Total/NA	Solid	7471A	399703
440-181815-6	CB-Outfall-1-0	Total/NA	Solid	7471A	399703
MB 440-399703/1-A	Method Blank	Total/NA	Solid	7471A	399703
LCS 440-399703/2-A	Lab Control Sample	Total/NA	Solid	7471A	399703
440-182115-A-1-E MS	Matrix Spike	Total/NA	Solid	7471A	399703
440-182115-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	399703

Qualifiers

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: Langan Engineering & Environmental Srvcs
Project/Site: Crestmore Catch Basin

TestAmerica Job ID: 440-181815-1

Laboratory: TestAmerica Irvine

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	CA01531	06-30-17
Arizona	State Program	9	AZ0671	10-14-17
California	LA Cty Sanitation Districts	9	10256	06-30-18
California	State Program	9	CA ELAP 2706	06-30-18
Guam	State Program	9	Cert. No. 17-003R	01-23-18
Hawaii	State Program	9	N/A	01-29-18
Kansas	NELAP Secondary AB	7	E-10420	07-31-17
Nevada	State Program	9	CA015312016-2	07-31-17
New Mexico	State Program	6	N/A	01-29-17 *
Northern Mariana Islands	State Program	9	MP0002	01-29-17 *
Oregon	NELAP	10	4028	01-29-18
USDA	Federal		P330-15-00184	07-08-18
Washington	State Program	10	C900	09-03-17

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
Phone: 949.261.1022 Fax:

Chain of Custody Record

144983

THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Neil Shukla	Site Contact: Rachel Prohoroff	Date: 4/10/2017	COC No:
Company Name: Langan Engineering	Tel/Fax: 714-616-0163	Lab Contact: Camille Murray	Carrier:	1 of 1 COCs
Address: 32 Executive Park, Ste 130	Analysis Turnaround Time			Sampler:
City/State/Zip: Irvine, CA, 92614	☐ CALENDAR DAYS ☒ WORKING DAYS			For Lab Use Only:
Phone: 949-855-8668 (Rachel Prohoroff)	TAT if different from Below _____			Walk-in Client:
Fax: 949-255-8641	☐ 2 weeks			Lab Sampling:
Project Name: Crestmore Catch Basin	☒ 1 week			Job / SDG No.:
Site: 1500 Rubidoux, Jurupa Valley, CA	☐ 2 days			
PO # 7000545402	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Title 22 Metals	TPH Purgeable/Extractable	CrVI (EPA 7199)	Sample Specific Notes:
CB-TP-1-2.5	4/10/17	15:30	G	Soil	1			X	X	X	
CB-TP-1-10.5		15:25									
CB-TP-2-9		16:08									
CB-TP-3-3		16:22									
CB-TP-3-9		16:29									
CB-Outfall-1-0		15:48									

440-18181 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 6.2 Corr'd: 5.9 | Therm ID No.: IR 78

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Rachel Prohoroff	Langan	4/10/17 18:10			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA-I	Date/Time: 4/11/17 10:1

Login Sample Receipt Checklist

Client: Langan Engineering & Environmental Srvcs

Job Number: 440-181815-1

Login Number: 181815

List Source: TestAmerica Irvine

List Number: 1

Creator: Skinner, Alma D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

6 November 2017

Ms. Annette Tam, Senior Planner
City of Jurupa Valley
8930 Limonite Avenue
Jurupa Valley, CA 92509

Re: Revised Executive Summary of the Remedial Investigation Report
Riverside Cement Company
City of Jurupa Valley, County of Riverside, California
Langan Project No.: 721011301

Dear Ms. Tam:

The following paragraphs provide an overview of known or suspected hazardous materials associated with the former Riverside Cement Plant (RCP; Site), and a summary of mitigation measures to address potential risks to human health and the environment. Information included in this document has been summarized from Langan's report titled, "Remedial Investigation Report (RIR), Agua Mansa Commerce Park, Jurupa Valley, California," dated 9 June 2017, revised 3 November 2017. The RIR was provided to the City of Jurupa Valley. Locations of known or suspected hazardous materials at the Site are shown on Figure 2 of the RIR.

BACKGROUND

The Site comprises 206 acres and has been used for limestone mining, quarrying, and cement manufacturing by Riverside Cement Company the former RCP since the early 1900s. Onsite features include a cement processing plant and supporting infrastructure, silos and kilns, storage areas, office and maintenance buildings, and heavy machinery.

Mining began in 1906 and ceased in the mid-1980s. The Site contains four quarries: the Wet Weather, Crestmore, Commercial, and Lone Star Quarries. The Crestmore Mine flooded in the mid-1980s. The flooded mine is also referred to as Crestmore Lake.

Cement manufacturing took place between 1914 and 2008. Limestone from the mines was mixed with imported materials and burned in rotary kilns to produce cement clinker. Cement clinker was then crushed to create cement, which was packaged and shipped offsite. Cement kiln dust (CKD), a fine, powdery material that accumulated inside the kilns, was the primary byproduct of cement manufacturing. CKD was not reused in the cement-manufacturing process stream until the 1980's. Prior to that time, management practices involved placing CKD with soil in designated areas onsite.

Site operations relied on electrical power, supplied by overhead power lines and transformers; and fuel, stored in onsite underground and aboveground storage tanks (USTs and ASTs). Transformers were historically located throughout the Site; but, only a few remain today. Transformers containing polychlorinated biphenyls (PCBs) were removed and replaced with non-PCB transformers during the 1980s. USTs and ASTs were removed during the 1980s under the oversight of the Riverside County Department of Environmental Health (RCDEH).

ENVIRONMENTAL ASSESSMENTS

Field investigation activities, including site visits, interviews with RCP representatives knowledgeable about previous site operations, reviews of RCP's historical records, and regulatory database reviews, were conducted between April 2016 and February 2017. As a result of the investigation, Langan identified twelve Areas of Interest (AOIs) that warrant additional environmental assessment.

To further evaluate potential environmental impacts, Langan conducted a subsurface investigation at each of the twelve AOIs. The investigation's scope included trench excavation; soil, groundwater, and surface water sampling; and laboratory analysis.

A total of 57 trenches were completed to depths of 25 feet below ground surface (bgs). Soil samples from the trenches were analyzed for metals, total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and/or PCBs.

Groundwater samples were collected from two monitoring wells, MW-3 and MW-4, in the southern part of the Site; and one well, identified as "Monitoring Well" (northern well), in the northern part of the Site. Surface water samples were collected from two locations (SW-1 and SW-2) within Crestmore Lake. Groundwater and surface water samples were analyzed for metals, hexavalent chromium, and/or VOCs.

During the late 1990s, while the RCP was still in operation, limited building inspections were conducted to evaluate for the presence of lead based paint (LBP) and asbestos containing materials (ACMs). Due to ongoing RCP operations, several areas were inaccessible at the time of the building surveys. However, LBP and ACMs will likely require remediation during the demolition activities.

CURRENT CONDITIONS

Soil laboratory analytical results from the environmental assessments were compared to several agency screening levels that include the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Levels (ESLs) for construction worker and commercial/industrial exposure for soil; United States Environmental Protection Agency (USEPA) Region 9, Regional Screening Levels (RSLs) for industrial soil; and California Department of Toxic Substance Control (DTSC) Screening Levels (SLs) for

commercial/industrial soil for exposure pathways relevant to the Site. For comparison purposes, the lowest of the screening levels from the three agencies were used to evaluate the data. Arsenic, lead, nickel, and TPH-diesel (TPH-d) exceeded one or more of the screening levels. Arsenic concentrations at the Site appear to be within the range of published background concentrations for Southern California. Lead exceeded the construction worker exposure ESL at a location near a surface water settling area. Nickel exceeded the construction worker exposure ESL at a location near a soil containing CKD area west of the Wet Weather Quarry. TPH-d exceeded the shallow soil and construction worker exposure ESLs in a sample collected at the former sag pond.

Groundwater and surface water analytical results were compared to RWQCB Maximum Contaminant Levels (MCLs) for drinking water. Metals and VOCs in surface water and groundwater samples did not exceed their relevant MCLs, with the exception of hexavalent chromium [Cr(VI)], which measured 19 ug/l and exceeds the current California MCL of 10 ug/l. However, on May 31, 2017, the Superior Court of California for Sacramento County issued a judgment invalidating the Cr(VI) MCL for drinking water and ordered the State Water Resources Control Board (State Water Board or Board) to take the necessary actions to delete the CR(VI) MCL from the California Code of Regulations and to file with the court by August 15, proof of deletion. Soil and groundwater sampling results are discussed in detail in the RIR.

MITIGATION MEASURES

The RIR assesses the nature and extent of potential hazardous materials within the Specific Plan area and provides a basis for future remedy selection. Potential hazards are primarily the result of past RCP activities, including on-Site soil containing CKD placement, fuel storage and distribution, and building construction and demolition. Potential hazardous materials occur either above-grade (i.e., buildings and structures) or below-grade (i.e., soil and groundwater). Predominant hazards that will be present during demolition and redevelopment include LBP, ACM, and miscellaneous universal waste (MUW) in on-Site structures during demolition; and soil containing CKD that will be encountered during demolition and grading.

A Soil Management Plan (SMP) will be prepared that will document procedures for segregating, screening, analyzing, and handling potentially impacted soil. The SMP will also prescribe engineering controls and personal protective equipment (PPE) measures to address potential construction worker exposure risks arising from encountering soil containing CKD during grading and redevelopment.

Before demolition, an updated hazardous materials survey will be conducted to identify the locations and quantities of LBP, ACM, and MUW in above-ground structures. Hazardous materials will be abated and removed in accordance with the applicable state (i.e., SCAQMD) and federal (i.e., EPA) regulations.

Langan will submit a site-specific Response Plan to the DTSC who is the lead agency for this project. . The Response Plan will outline potential impacts, exposure pathways, and mitigation measures for soil containing CKD and metals in soil. In addition, it will evaluate potential remedies and select a proposed final remedy that protects human health and the environment during and after redevelopment.

Sincerely,
Langan Engineering and Environmental Services, Inc.



Neil Shukla
Associate



Robert S. (Rory) Johnston, P.E.
Principal/Vice President

Site Assessment Work Plan

Agua Mansa Commerce Park
Jurupa Valley, Riverside County, California

Prepared For:
***Crestmore Redevelopment, LLC*:**

Prepared By:
Langan Engineering and Environmental Services, Inc.
515 South Flower Street, Suite 2860
Los Angeles, California 90071



Brad A. McCardell, PG, #8108
Senior Project Geologist



Neil Shukla
Associate



Robert S. (Rory) Johnston, PE
Principal / Vice President

10 July 2018 (Revised)

1 June 2018
Project No. 721013501

TABLE OF CONTENTS

TABLE OF CONTENTS 1
1.0 INTRODUCTION 3
1.1 Objectives 3
1.2 Site Background 4
1.2.1 Site Description 4
2.0 HISTORICAL SITE ACTIVITIES 6
2.1 Historical Site Operations 6
3.0 GEOLOGY AND HYDROGEOLOGY 8
3.1 Geology 8
3.1.1 Regional Geologic Setting 8
3.1.2 Local Geologic Setting 8
3.1.3 Local Faulting 10
3.2 Hydrogeology 10
4.0 STUDY AREAS 13
5.0 REVIEW OF PREVIOUS REGULATORY INVOLVEMENT 21
6.0 PREVIOUS SITE INVESTIGATIONS 23
7.0 PREVIOUS LANGAN INVESTIGATIONS 25
8.0 PROPOSED INVESTIGATION PLANS 29
9.0 FIELD INVESTIGATION AND SAMPLING 37
10.0 DOCUMENTATION 39
11.0 REPORTING 40
12.0 REFERENCES 41

TABLES

Table 1 Surface Mining and Crushing Features
Table 2 White Cement Plant Features
Table 3 Grey Cement Plant Features
Table 4 Material Storage Area Features
Table 5 Maintenance, Administration, and Packaging Features
Table 6 Vacant Land Features
Table 7 Prior Agency Engagement
Table 8 Previous Site Investigations (Surface Mining and Crushing)
Table 9 Previous Site Investigations (White Cement Plant)
Table 10 Previous Site Investigations (Grey Cement Plant)
Table 11 Previous Site Investigations (Maintenance, Administration, and Packaging)
Table 12 Previous Langan Investigations (Surface Mining and Crushing)
Table 13 Previous Langan Investigations (White Cement Plant)
Table 14 Previous Langan Investigations (Grey Cement Plant)
Table 15 Previous Langan Investigations (Material Storage Area)
Table 16 Previous Langan Investigations (Maintenance, Administration, and Packaging)
Table 17 Previous Langan Investigations (Vacant Land)
Table 18 Summary of Analytical Results – Northern Parcel
Table 19 Demolition/Decon Plan Features
Table 20 DQO-2 Sampling Locations
Table 21 Proposed Investigation Plan (Surface Mining and Crushing)
Table 22 Proposed Investigation Plan (White Cement Plant)
Table 23 Proposed Investigation Plan (Grey Cement Plant)
Table 24 Proposed Investigation Plan (Material Storage Area)
Table 25 Proposed Investigation Plan (Maintenance, Administration, and Packaging)
Table 26 Proposed Investigation Plan (Vacant Land)
Table 27 Proposed Investigation Plan Analytical

FIGURES

Figure 1 Site Location Map
Figure 2 Site Map with Study Areas and Previous Investigations
Figure 3 Site Map with Study Areas and Proposed Sampling Locations
Figure 4 Proposed Cut/Fill Site Map

APPENDICES

Appendix A DTSC Response to Comments
Appendix B Tables
Appendix C Health and Safety Plan
Appendix D Field Forms
Appendix E DTSC Active Soil Gas Investigation (July 2015)
Appendix F Sampling Analysis Plan (SAP)
Appendix G Quality Assurance and Quality Control Plan(QAPP)

1.0 INTRODUCTION

Langan Engineering and Environmental Services, Inc. (Langan) has prepared this Site Assessment Work Plan (SAWP) for the former Riverside Cement Plant (RCP) or the "Site", located at 1500 Rubidoux Boulevard in Jurupa Valley, California (Figure 1). The Site consists of approximately 206 acres in the City of Jurupa Valley, Riverside County, California.

The Site is under a California Land Reuse and Revitalization Act (CLRRA) agreement with the Department of Toxic Substances Control (DTSC) for the proposed redevelopment project. The CLRRA agreement was executed on 16 January, 2018.

The proposed development for the Site consists of the construction of six (6) warehouse distribution structures with associated utilities and parking. As part of the redevelopment program the onsite structures (superstructure and subsurface structures) will be decommissioned, decontaminated and demolished, and grading will be performed. The mass grading project for the Site includes a balanced cut and fill with a total grading estimated at between one and two million cubic yards (yd^3). After completion, the Site will be covered by the proposed development including concrete pad structures, paved circulation and parking and landscaped areas.

The proposed development is outlined on Figure 2.

1.1 OBJECTIVES

The purpose of this SAWP is to provide a brief historical summary of the Site operations, a summary of the geologic/hydrologic characteristics, regulatory listings, previous environmental investigations, and the proposed additional assessment activities at the Site to meet the data quality objectives (DQOs). The proposed additional Site assessment and data collection activities will provide supplemental data within the six study areas identified in Langan's Preliminary Environmental Assessment (PEA), dated 20 December 2018. Certain areas will be deferred to the decontamination and demolition plan and the soil management plan, as addressed in Section 8.1, due to areas not accessible because of buildings and structures that will be removed. The sampling activities were designed to address data gaps and additional data requests identified by the DTSC in their review comments of the PEA dated 28 February 2018. The SAWP was developed based on these DTSC comments to the PEA (Appendix A),

Site visits, dated 25 January 2018 and 16 March 2018, and meetings with DTSC, dated 23 February 2018, and 24, 26 April 2018. The revised SAWP was developed based on DTSC comments to the SAWP received on June 28, 2018 and meetings on 2, 10 July 2018.

The four data quality objectives (DQO) for the SAWP are:

- DQO-1: determine and evaluate potential chemicals of potential concern (COPCs) and the lateral and vertical extents of COPCs in former known or suspected source areas to support a health risk evaluation and the Response Plan.
- DQO-2: determine and characterize the onsite soils for reuse as onsite fill or for off-Site disposal
- DQO-3: to identify hexavalent chromium (Cr^{VI}) bearing materials that could generate dusts/emissions especially during grading or demolition activities
- DQO-4: Evaluate potential leaching of COPCs (e.g., metals and hexavalent chromium) into groundwater

1.2 SITE BACKGROUND

1.2.1 Site Description

The Site is approximately 206 acres located at 1500 Rubidoux Boulevard. The approximate location is shown on Figure 1. The Site includes 13 parcels in Jurupa Valley, California with the Assessor's Parcel Numbers (APNs) listed below:

APN #
175-200-001 (Portion)
175-200-002
175-200-003
175-200-004
175-200-005
175-200-007
175-200-008
175-200-009

APN#
175-170-035
175-170-036
175-170-040
175-170-041 (Portion)
175-180-001

The Site is bound to the west by Union Pacific Railroad (UPRR) track and Rubidoux Boulevard, to the north by El Rivino Road, to the south by three inactive quarries and Agua Mansa Road, and to the east by industrial development and Hall Avenue. As shown on Figure 1, the northwestern section of the Site contains undeveloped land and unpaved roads, while the northern section contains undeveloped land and a paved entrance road with a guard shack.

The western section encompasses an entrance road, along with storage silos, a warehouse (Pack House), part of the former white cement manufacturing plant, and a one to two-story administration buildings (Truck Garage, Transportation Office, Storehouse, and Garage). The eastern section contains the raw materials storage area and the remnants from the Grey Cement Plant (primarily the support structures for the rotary kilns).

2.0 HISTORICAL SITE ACTIVITIES

2.1 HISTORICAL SITE OPERATIONS

The Site was in operation from the early 1900s until 2014. Operations on Site were divided into either the cement manufacturing operations or the Crestmore mine where mining of limestone and quarrying activities were conducted. The Crestmore mine was an underground mine and the four quarries were designated as the Wet Weather, the Chino, the Commercial, and the Lone Star quarries. The Wet Weather Quarry and Lone Star Quarry are located within the Site boundary, while the other quarries are located on the parcel located to the south of the Site (Figure 1) which is not part of this SAWP. In addition, the Site includes various support facilities, heavy machinery, and administrative buildings that were related to the cement manufacturing plant and limestone quarrying and mining operations.

The facility underwent three major redevelopment phases over the life of the operation. From the early 1900s and the 1950s, the cement plant was located in the south western portion of the Site just north of the present day White Cement Plant. The facility at that time was operated using petroleum-based fuels (i.e. Bunker C) stored in fuel tanks. As the cement manufacturing process evolved through the use of updated technology and other changes in the industry, the facility went through an expansion and redevelopment phase from the late 1950's through early 1960's, which included conveyor belt systems and compress air, development of raw material storage areas, and upgrades to processing of raw materials to manufacture cement product.

During the second renovation phase, the facility was operated using both coal and petroleum-based fuels. By the 1960's, the original plant had been demolished and the present day facility was constructed that generated both grey and white cement product. The current facility was operated until it was shutdown in 2014.

In 1909, limestone and silicate rock quarrying activities began at the Site. In 1930, underground mining commenced at the Crestmore mine, which furnished most of the plant's requirements until 1939. The Wet Weather quarry was deepened and extended between 1940 and 1954. From 1930 to 1954, the block caving method was used, which was a process that allows for the bulk mining of large, relatively lower-grade materials.

The room and pillar underground mining method was used between 1954 and 1986. Mining of limestone at the Site ceased in the late 1980s when mining operations penetrated the underlying aquifer eventually flooding the mine shafts. The resulting flood created the present day Crestmore Lake located on the parcel south of the Site which is not part of this SAWP (Figure 1).

Cement manufacturing operations began in 1914 and continued through 2008. The limestone obtained from the onsite quarries/mines was mixed with raw sand and clay materials imported from off-Site sources, and heated in rotary kilns to manufacture cement clinker. The raw materials were stored in onsite silos prior to 1960s until the Raw Material Storage Area (RMSA), located along the northwestern portion of the Site, was developed at which point the materials were staged there. The cement clinker was then crushed to create two primary types of cement (i.e., White and Grey Cement), which was then packaged and shipped offsite. Cement Kiln Dust (CKD) was one of the primary by-products generated during the manufacturing process, and it exhibits a slight pinkish hue. When hydrated, CKD becomes dense and relatively impermeable to water, but does not form a cemented mass.

Prior to the 1970s, CKD was hauled from the kilns using end-dump trucks and reportedly placed with fill soils/mine spoils at several locations throughout the Site (Figure 1). The placement of CKD material primarily occurred from 1955 to 1979, and the primary location was the Wet Weather Quarry. Due to the advancement in the cement manufacturing process during the 1970's, previously discarded CKD material was reclaimed and used as feedstock in the cement making process. Also during the 1950s and early 1960s, the cement manufacturing process developed a closed-loop system with the incorporation of bag houses to capture CKD and other particulate materials generated during the cement manufacturing process. The CKD material was reclaimed beginning in the early 1970s until the operations were shutdown in 2014.

The equipment used to manufacture cement generally relied on electrical power for material conveyance/process control, and petroleum fuels for heating at various times over the life of the facility. Petroleum fuels were historically provided by a 6,000,000 gallon UST storing Bunker C fuel oil. Other underground storage tanks (USTs) at the Site were used to store petroleum products such as gasoline, diesel fuel, fuel oil, and waste oil.

3.0 GEOLOGY AND HYDROGEOLOGY

3.1 GEOLOGY

3.1.1 Regional Geologic Setting

The Site is located in the Peninsular Ranges Province of Southern California, dominated by granitic rocks of Mesozoic age that intruded into pre-existing sedimentary strata. Tertiary strata were deposited west of the eroded granitic rocks, and as the area was uplifted, some of these strata formed upland coastal plains. The Site is also located east of the coastal plains in an area dominated by granitic rocks that are mainly quartz diorite.

As discussed above, specific areas of the Site were used for mining activities due to the presence of two steeply dipping limestone formations approximately 200 to 300 feet thick in the northern end. The limestone formations are roughly parallel, with an upper and lower formation; the upper formation is known as the Sky Blue Hill Limestone and the lower formation is known as the Chino Limestone. Thin, poorly developed soils and minor sedimentary strata are mapped as locally covering the bedrock on the Site.

As stated above, the Site is located within the fault-bounded, northwest-southeast trending Perris Block within the Peninsular Ranges geomorphic province of California. The Perris Block is bounded in the east by the San Jacinto Fault Zone, the north by Cucamonga Fault Zone, and the west by Elsinore Fault Zone. According to the United States Geologic Survey (USGS) maps, the Perris Block is underlain by lithologically diverse prebatholithic metasedimentary rocks intruded by plutons of the Cretaceous age Peninsular Ranges batholith. Erosional depositional surfaces are developed on the Perris Block and thin to relatively thick sections of Quaternary age non-marine sediments discontinuously cover the basement rock.

3.1.2 Local Geologic Setting

The Site is located in the eastern end of the Jurupa Mountains on the south side of the San Bernardino Valley. The Santa Ana River drains the San Bernardino Valley towards the southwest and is located approximately one-half mile east of the Site.

Based on a review of published geologic reports, maps and referenced geologic information, the Site is mapped as being underlain by two geologic units consisting of

surficial soils (artificial fill, alluvium, Aeolian sands) and intermixed tonalite marble and schist. The artificial fill (Qaf) reportedly consists of uncompacted and undocumented fill from mining operations, soil containing CKD and unconsolidated talus deposits. The intermixed tonalite, marble, and schist (KtPzms) are Cretaceous and Paleozoic age and consist of intermixed biotite-hornblende tonalite and coarse grained marble containing lesser amounts of biotite-quartz schist.

Based on the information reviewed, quarrying and subsurface mining activities were initiated in 1906 to mine the limestone located on or in the vicinity of the Site. Prior to quarrying, the limestone was present as two generally irregular, roughly parallel, lenticular limestone bodies dipping primarily east-northeast. As discussed above, the upper (shallower) Sky Blue Limestone and the lower (deeper) Chino limestone are mineralogically similar. The limestone is coarsely crystalline, associated with metamorphosed sediments, enveloped and cut by intrusive igneous rocks and contact metamorphic minerals, including large masses of intrusive microcrystalline quartz monzonite porphyry and quartz monzonite pegmatites. Country rock within the boundaries of the Site consists of Perris quartz-biotite diorite that becomes granodiorite. Quartz monzonite pegmatites occur commonly as dikes in the porphyry and country rock and extended generally less than 2 or 3 feet into the limestone. The widespread contact rock is composed generally of grossularite garnet with and without diopside.

The shallower, Sky Blue Limestone is an arcuate shaped body, enveloped and intruded by quartz diorite and intruded by quartz monzonite porphyry. The body (prior to mining) was up to several hundred feet thick and dipped primarily east or northeast. Where the body was thinnest, the limestone was converted to contact rock. Two (2) facies were present within the limestone; a white limestone with localized yellow predazzite beds and a sky blue colored limestone present closer to the intrusive quartz monzonite porphyry and associated pegmatites.

The deeper, Chino Limestone is generally composed of alternating bands of yellowish predazzite and white crystalline limestone with widely disseminated graphite flakes. The unit dipped up to 45 degrees east, was at least 2,000 feet long, and had irregular upper and lower surfaces. Banding ranged from few inches to a few feet thick.

3.1.3 Local Faulting

The following publications and reports were reviewed to obtain information on local faulting within the Site:

- Daly, John W., (1931), The Geology and Mineralogy of the Limestone Deposits at Crestmore, Riverside County, California, dated 1931 (Daly, 1931).
- Woodford, A. O., Crippen, R. A., and Garner, K. B., (1941), Section Across Commercial Quarry, Crestmore, California, American Mineralogist, Volume 26, pages 351-381 (Woodford et al, 1941).
- ERM-West, Inc., (1991), Technical Evaluation 9/30/90 EPA FIT Report, Riverside Cement Company, Crestmore Plant, dated November 1991 (ERM-West Report).

A review of Plate 1 in the Daly report indicates that a northeast-southwest trending fault segment is mapped between the Commercial Quarry in the northeast and southwestern portion of the Crestmore Quarry to the southwest. The corresponding report does not elaborate on this fault and the review suggests that Daly (i) identified a few small faults that are not significant relative to the Site major geologic structure and (ii) Daly did not find any large faults in the area mapped west of the quarries.

The Woodford, et al, 1941 report refers to "a prominent fault oriented N50^{o}E 70^{o}SE" that extends into bedrock at Station 15 of Woodford, et al.'s Figure 3-Section "Across the Commercial Quarry, 1940". Additional information for this fault was not provided in the report.

Based on a review of the referenced publications, there is no evidence of active faulting (Holocene or younger) for the Site.

3.2 HYDROGEOLOGY

The Site is located in the eastern end of the Jurupa Mountains on the south side of the San Bernardino Valley. The Santa Ana River drains the San Bernardino Valley towards the southwest and is approximately one-half mile east of the Site. The ground surface elevations vary between approximately 820 feet above mean sea level (amsl) on the southern portion of the Site to approximately 1150 feet amsl on the northern portion of the Site.

Based on a review of historical Site documents, groundwater occurs in three distinct hydrologic units at the Site. They are the Chino Limestone (referred to the Lowe limestone unit), the Wet Weather, and the Sky Blue (referred to the Commercial unit in historical documents) Limestone units (referred to upper limestone unit), and the Santa Ana River alluvium (ERM-West, August 1991). According to the ERM-West 1991 report, geologic and dewatering feasibility studies were conducted in 1928 and 1950 by W.P. Rowe in the Chino limestone, where the Crestmore quarry is currently located. These studies indicated that the granite layers above and below the Chino limestone act as confined layers. The report states that the Chino limestone water originates mostly from percolation from rainwater at the mine and an influx of water from somewhere below the Santa Ana River to the east.

Pumping wells installed during the 1928 study were screened in the Blue Sky and Wet Weather formations, and displayed a flow consistent with groundwater migration in the river alluvium, prior to dewatering the wells The ERM-West report refers to the Wet Weather and Blue Sky Limestone units as being a continuous unit, and that upper limestone was hydraulically connected to the alluvium east of the original surface outcrops of granite. Figure 1-4 in the ERM-West report show groundwater gradients in the alluvium flow south-southwest in the eastern part of the Site and flows west in the southwestern part of the Site. ERM-West's report also states that inference of the hydraulic connection in the lower limestone and alluvium were very strong, also evident in Figure 1-4.

According to ERM-West report, the production wells on-Site, Well 88-1 and Well 60-1, are screened in the Chino limestone and alluvium, respectively, and groundwater from the Chino limestone migrates towards the production wells. The report also explains water consumption at the Site, during the time of the report (mid-1980s- early 1990s) , was from precipitation, the northern Chino limestone contact with river alluvium, water from within the Chino limestone aquifer deeper to the east, and the drift to the Wet Weather limestone at 220 feet above sea level. According to the ERM-West report, this was most likely due to the mine drift not being completely sealed between the limestone units when it was cut in 1985.

Concurrent with historical documents (discussed in later sections of this report), and the results of the recent investigation, groundwater flow in the shallow alluvial aquifer is likely towards the Santa Ana River, or towards the south to southeast. Groundwater

was measured in the wells onsite at depths between 60 and 135 feet below ground surface (bgs).

4.0 STUDY AREAS

As presented in Langan's PEA, the Site has been subdivided into six (6) study areas for site investigation purposes based on general operation within the RCP. Within each study area, there are specific features that have been evaluated by previous consultants and Langan. A description of the use of each study area and tabular summary of features in each study area is provided below:

Surface Mining and Crushing Study Area

Most of the surface mining (quarrying) operations at the former RCP occurred to the south of the Site in the Crestmore Quarry and the Commercial Quarry. On-Site surface mining activities were limited to approximately 28 acres containing the Wet Weather and Lone Star Quarries (collectively referred to as "Wet Weather Quarry" hereafter). Initial crushing operations were conducted in this study area. A list of features located within this study area boundaries are presented in Table 1 below.

Table 1: Surface Mining and Crushing Features

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
Surface Mining and Crushing	CKD Containing Soil	Early 1900s – 2000s	Mining and staging of CKD soils and materials	CKD-containing soil berms focused eastern portion of plant in the Crestmore Lake, Commercial Quarry, and Wet Weather Quarry. Varies from approximately 1' to more than 10' thick.
Northwest corner of surface, mining, and crushing area	Former Secondary Reduction	1950s – 2000s	Secondary crushing process and reduction of limestone	--
Former Iron Ore Storage	Former Iron Ore Storage	1950s – 2000s	Storage of iron ore	--
Wet Weather Quarry	Wet Weather Quarry	Early 1900s – 2000s	Mining and staging of CKD soils and materials	Former CKD-disposal area
East of Former Secondary Reduction	Transformer	Early 1900s – 2000s	Provided power	--

White Cement Plant

The White Cement Plant study area includes approximately 11 acres in the southwestern portion of the Site. The White Cement Plant was constructed in the 1950s and remained operational through the late 2000's. The primary activities in this area were mixing and milling raw materials, heating raw materials in kilns to create cement clinker, and grinding cement clinker to make white cement.

The cement process consisted of the following: limestone was reduced in the secondary reduction process and conveyed to the raw materials silos storage, the raw materials silo and feed silos (fed by the clay storage) were ground in the raw mills, the ground raw materials were processed through the kilns from the west to east, the eastern portion of the kilns was heated by a burner which were fed by fuel oil and heated to above 2,000 degrees, which created clinker that was transported via conveyor to the clinker storage silos (8) along the western area of the white cement process for final finishing. The clinker was then processed through the finish mills where the clinker was further crushed to a fine powder type material for cement manufacturing. The clinker crushing process was a closed loop system with bag houses capturing the fine product in the bag house, which was then reprocessed through the kilns. The finish product was then conveyed to the white cement plant finish silos for packaging into cement bags and pallets.

A list of features located within this study area boundaries are presented in Table 2 below.

Table 2: White Cement Plant Features

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
Boiler Blowdown Pond	Boiler Blowdown Pond	1985 - 1990	Hold blowdown discharge 1995: served cooling water for kilns	4' deep, 30'x60'
Boiler Blowdown Pond	No. 6 (Bunker C) Fuel Oil 210,000 Gallon AST	Approximately 1950s – 2014	Fuel storage for White Cement Plant Kiln burners	16' diameter x 15 feet high
White Kiln Pipeline and Diesel Pump	2 Former 12,000 Gallon Diesel UST	Approximately 50 years old	Fuel	12' to UST bottom
	Former White Kiln Pipeline Leak	1993 - 1996	--	No. 6/Bunker C fuel pipeline leak on 8/20/1993 600 gallons of fuel oil spilled
Finish Mill	Diethylene Glycol AST	Approximately 1950s –	Grinding aid	5,000 gallons

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
		2014		
	Acetic Acid (80%) AST	Approximately 1950s – 2014	Grinding aid	1,000 gallons
Southeast of White Kilns	Sewer Alignments	Early 1900s – present	--	--
Raw Mix Silos	Raw Mix Silos	Approximately 1950s – late 2000s	Storage of feed stock	--
Raw Mills	Raw Mills	Approximately 1950s – late 2000s	Storage of feed stock	--
Feed Silos	Feed Silos	Approximately 1950s – late 2000s	Storage of feed stock	--
Former Primary Crusher	Former Primary Crusher	Approximately 1950s – late 2000s	Crushed raw material	--
Kilns	Kilns	Approximately 1950s – late 2000s	Processed raw material into clinker product	--
		Approximately 1950s – late 2000s		--
Clinker Silos	Clinker Silos	Approximately 1950s – late 2000s	Storage of clinker material	--
Former Dryers	Former Dryers	Approximately 1950s – late 2000s	--	--
South of Finish Mills	Transformers (2)	--	--	--
South of Feed Silos	Transformers	--	--	--

Grey Cement Plant

The Grey Cement Plant study area includes approximately 29 acres north of the Surface Mining and Crushing area. The Grey Cement Plant generally operated on a larger scale than the White Cement Plant, with the grey kilns being approximately twice as large as the white kilns and operated at above 4,000 degrees. The primary activities in this area were mixing and milling raw materials, heating raw materials in kilns to create cement clinker, and grinding cement clinker to make grey cement. This process of manufacturing the grey cement was similar to the manufacturing of white cement but included the addition of other feedstock such as iron ore, coal, and clay to adhere to RCP grey cement specifications. A list of features located within the study area boundaries are presented in Table 3 below.

Table 3: Grey Cement Plan Features

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
North of Boiler House	Former Diesel UST 10,000 Gallons	Unknown – late 1980s	Storage and dispensing of diesel	8'x27' single-walled steel, 11' below grade
Southwest of Former Finish Grind Feed Bins	Former Water Coolers	Early 1900s – 1980s	Cooling system for process water	--

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
Crushing Storage Silos	Crushing Storage Silos	Approximately 1950s – late 1980s	Storage of raw material that has been sized for processing	--
Former Clinker Hopper	Former Clinker Hopper	Approximately 1950s – late 1980s	Materials processing unit	--
Boiler House	Boiler House	Approximately 1950s – late 1980s	--	--
Kiln Feed Silos	Kiln Feed Silos	Approximately 1950s – late 1980s	--	--
Former Motor Control Building	Former Motor Control Building	Approximately 1950s – late 1980s	--	--
Former Mill Motor Building	Former Mill Motor Building	Approximately 1950s – late 1980s	--	--
Former Motor Control Center 1	Former Motor Control Center 1	Approximately 1950s – late 1980s	--	--
Former Motor Control Center 2	Former Motor Control Center 2	Approximately 1950s – late 1980s	--	--
Former Motor Control Center 3	Former Motor Control Center 3	Approximately 1950s – late 1980s	--	--
Former Grey Kiln 1 & 2	Former Grey Kiln 1 & 2	Approximately 1950s – late 1980s	Processed raw material into clinker product	--
Baghouses	Baghouses	Approximately 1950s – late 1980s	Collection of dust generated during clinker formation.	--
Chino Substation	Chino Substation	Approximately 1950s – late 1980s	--	--
Former Raw Mills	Former Raw Mills	Approximately 1950s – late 1980s	Grind materials to appropriate size.	--
Former Finish Grind Feed Bins	Former Finish Grind Feed Bins	Approximately 1950s – late 1980s	--	--
Former Finish Mills	Former Finish Mills	Approximately 1950s – late 1980s	Grind clinker to fine powder	--
Northwest corner of Grey Cement Plant	Former Diethylene Glycol AST 12,000 Gallons	Approximately 1950s –2014	Grinding aid	--
Northwest corner of Grey Cement Plant	Former Tall Oil AST 10,000 Gallons	Approximately 1950s –2014	Grinding aid	--
East of Former Motor Control Bldg.	Electric Tunnel	Approximately 1960s –2014	--	--
West of Former MCC-1	Former Propane Tank	--	Fuel forklifts	--
North of former Motor Control Center 2	Former Sodium Hypochlorite AST	Approximately 1950s – 2014	Water treatment purposes	--
West of former sodium hypochlorite AST	Mine Air Vent	Unknown – present	--	--
Former Coal Storage	--	1970s	Fired Grey kilns	--
Well 88-1	--	Unknown –	Draws water from flooded	--

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
		late 1980s	Crestmore Mine workings	
MW-1	--	1991	--	Water level: 110.80' below top of casing. Upgradient of former CKD disposal area
North/East/South Berms	North/East/South Berms	Unknown	--	South Berm: contains material from Grey Cement Plant demolition. North Berm: 910x80x20 (53,000 yd3) East Berm: 480x280x20 (100,000 yd3) South Berm: 640x140x20 (65000 yd3)
Throughout Study Area	Transformers	--	--	--

Material Storage Area

The Material Storage Area comprises approximately 37 acres north of the Grey Cement Plant study area. The Material Storage Area was divided into twelve (12) bays; the six eastern bays were used for clinker storage and the six western bays were used for raw material storage. A network of conveyor belts was used to transport raw materials and cement clinker between the material storage area and various locations throughout Grey Cement Plant. Materials were distributed throughout and recovered from the bays using track-mounted reclaimers that were powered by electricity. A list of features located within the study area boundaries are presented in Table 4 below.

Table 4: Material Storage Area Features

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
Southern border of study area	Dust Suppressant ASTs	2000	Dust control (proprietary product) - contained foaming agent sold by GE Betz, Inc.	4,000 and 5,000 gallons
Crushed Rock Storage Area	Crushed Rock Storage Area	Approximately 1950s - 2014	Storage of dry crushed rock	--
Former Gypsum Storage	Former Gypsum Storage	Approximately 1950s – 2014	Storage of crushed gypsum	140'x30'
Clinker/Raw Material Storage Area	Clinker/Raw Material Storage Area	Approximately 1950s – 2014	Divided into 12 bays - eastern 6 bays used for clinker storage, western 6 bays used for raw import material storage.	--
Eastern Berms	Eastern Berms	unknown	--	147,000 ft2 110,000 yd3

Maintenance, Administration, and Packaging

The Maintenance, Administration, and Packaging study area is approximately 51 acres southeast of the main entrance to the RCP from El Rivino Road. With the exception of the Pack House and Loading Facility, operations in this study area generally supported operations elsewhere at the RCP. These operations included equipment maintenance, fabrication, warehousing, and administration activities. To support those activities, a number of USTs and ASTs were located in this study area to provide fuel and/or lubricants. This area also was the receiving area for other materials which were staged in the hazardous materials storage area or the storage warehouse. A list of features located within the study area boundaries are presented in Table 5 below.

Table 5: Maintenance, Administration, and Packaging Features

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
West of Former Agriculture Division	Former Parking (Northwest)	early 1900 - 1970's	Car parking / staging	--
Northwest of center of former Fleet Truck Parking	Former Agriculture Division	early 1900 - 1970's	--	--
Northwest of center of former Fleet Truck Parking	Abandoned Substation	pre-1960s	Supplied power for residential homes along northern portion of Site.	--
East of Transportation Office	Former Fleet Truck Parking	early 1900 - 1970's	--	--
Transportation Office	Transportation Office	early 1900 - 1970's	Administrative services for distribution activities and training.	--
Former Garage Salvage Yard	Former Gasoline UST 10,000 gallons	Mid 1900s - 1997	Storage of gasoline fuel	8' W x 27' L. Single wall steel.
Garage and Administrative Building	Washrack Discharge Point	Unknown	Collects runoff from 3-stage clarifier that collected washrack discharge	--
Garage and Garage Storeroom	Former 3-Stage Clarifier	Still present in 2009 (DTSC, 2009)	Truck wash discharge collection	Approx. 4'x14'x5'
	Former Waste Oil AST 250 Gallons	Unknown – 2014	Waste oil storage	Single wall steel
	Former Diesel UST 10,000 Gallons	1964 – 1988	Storage of vehicle-diesel fuel	8'x30', single wall steel, 5' and 13' top and bottom bgs respectively, 8' diameter
	Former Diesel UST 1,000 gallons	Unknown – late 1980s	Fuel	5.5'x6.5'
	Former Gasoline UST 2,000 gallons	Unknown – late 1980s	Fuel	6.5'x13'
Crane Storage	Former Waste Oil UST 550 Gallons	1976 – 1988	Waste oil storage	4'x6', single-walled steel, 8' below grade
Former Spray Pond	Former Suction Sump	1910 - present	pre-1968 : cooling system spray pond current: storage area for miscellaneous materials	Approx. 170' x 250'. 3' retaining wall around perimeter. Concrete floor potentially several feet thick. A suction sump is located along the southeast corner.
Northeast of former spray pond	Former Sag Pond	At least 1948 - present	From 1960s to present, area has been used as a staging area for materials and tree cuttings.	Approx. 170'x250'. Currently contains wood debris and materials.
Former Fleet Truck Parking	Settling Areas	Unknown	Surface water settling areas identified during RWQCB Sept 2000	--

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
Former 6M gallon tank/reservoir	Settling Areas	Unknown	Surface water settling areas identified during RWQCB Sept 2000	--
Former Crane/ former Clinker Hoppers	Settling Areas	Unknown	Surface water settling areas identified during RWQCB Sept 2000	--
Former Power House	Settling Areas	Unknown	Surface water settling areas identified during RWQCB Sept 2000	--
Southwest of Former Spray Pond	Hazardous Waste Storage Pad	Unknown – present	Store small quantities (55-gallon drums) of materials for usage onsite to support cement equipment process.	--
Stormwater Retention Basin	Stormwater Retention Basin	Unknown	Western concrete swales accept water that flows from a stormwater culvert on Rubidoux Blvd. Southeastern swale is a spillway for excess water.	--
Crestmore Substation	Former Diesel AST 1,000 Gallons	1930s – 2014	Used for fuel storage	--
North of former boiler shop	6,000,000 Gallon Bunker C Fuel Oil UST	At least 1948 – 1987	Fueled cement kilns prior to 1968. Continued use until mid-1980s.	205' diameter tank floor, 25' tall, 255' tank top.
6,000,000 Bunker C Fuel Oil Tank	Former Reservoir	Until late 1980s	Collected all surface water run-off around the Site.	--
NE of former garage salvage yard	Well 60-1	Unknown	Primary water supply for the plant	Total depth 331' bgs; perforated screen between 182' and 290'
Former Parking SE of 6M gallon tank	Former 1 Unleaded Gasoline/ 1 Diesel AST 2,000 Gallons each	Unknown - 2014	--	--
West of the Grey Silos	Former Propane Tank	Unknown - 2014	Fuel forklifts	AST
Former Material Yard	Former Material Yard	Early 1900s – 1980s	Storage of dry materials and parts	--
Former Electric Shop	Former Electric Shop	Early 1900s – 1980s	Minor electrical repairs to equipment	The "Shops" contained, in 55-gallon drums or smaller,: acids (battery and cleaners, safety solvent, various aerosol sprays, compressed gasses (acetylene, oxygen, and nitrogen).
Former Boiler Shop	Former Boiler Shop	Early 1900s – 1980s	--	--
Former Machine Shop	Former Machine Shop	Early 1900s – 1980s	General machining of metal parts	--
Former Repair Shop	Former Repair Shop	Early 1900s – 1980s	Miscellaneous equipment repairs	--
Stores	Stores	Early 1900s – 1980s	Dry materials and parts	--
Stockhouse	Stockhouse	1900s – 2000s	Finished cement product storage	--
Packhouse	Packhouse	1900s – 2000s	Distribution and packing.	--
Truck Loading	Truck Loading	1900s – 2000s	--	--
Compressor	Compressor	1900s – 2000s	--	--
Former Power House	Original cement plant operations	1909-1950's	--	--
Tube Mills	Tube Mills	--	--	--
Crane	Crane	--	--	--
Tunnel	Tunnel	--	--	--
Two Plastic Silos	Two Plastic Silos	--	Finished product storage silos	
Plastic Silo	Plastic Silo	--	Storage silos	
White Silos	White Silos	--	Storage silos	

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
Grey Silos (2)	Grey Silos (2)	--	Storage silos	
Silo (north of former powerhouse)	Silo (north of former powerhouse)	--	Storage silos	
Throughout study area	Transformers	--	--	--

Vacant Land

Approximately 60 acres of land in the northern portion of the Site was unused by the RCP. The study area is vegetated with grass, shrubs, and trees. The Northern Monitoring Well is located near the northern boundary of the RCP and two former groundwater production wells are located in the northwestern portion of the Site. According to Mr. Crites and a review of historical aerial photographs, residential homes were located in the western and eastern portions of the study area; the homes were destroyed during a fire and subsequently demolished. A list of features located within this study area boundary is presented in Table 6 below.

Table 6: Vacant Land Features

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
Northern Berms	Northern Berms	Unknown	Unknown	90,000 ft2 800'x110'x20' 67,000 yd3
North	Northern Monitoring Well	Unknown	Formerly a water supply well	--
NW corner of northern parcel	2 Former Production Wells (NW)	unknown	Formerly supplied water to Crestmore Heights community (west of Site)	1/23/2018 - measured depth to water at ~103 bgs

The boundaries of these study areas and feature locations are also shown on Figure 1.

5.0 REVIEW OF PREVIOUS REGULATORY INVOLVEMENT

From approximately 1973 to 2018, the following agencies have been involved at the RCP:

- South Coast Air Quality Control District (SCAQMD)
- Santa Ana Regional Water Quality Control Board (SARWQCB)
- Riverside County Department of Environmental Health (RCDEH)
- Environmental Protection Agency (EPA)
- Department of Toxic Substances Control (DTSC)

Initially, the primary agency involved at the RCP was the SCAQMD and SARWQCB. The RCP was primarily governed by waste discharge requirements while the SCAQMD oversaw the cement plant manufacturing process from an air quality perspective. As regulations developed over time, more agencies became involved with the oversight of closure actions or investigations at the RCP. On July 13, 2017, DTSC was confirmed to be the lead oversight agency of the RCP and its proposed redevelopment. The SCAQMD will continue to oversee the potential for air quality impacts during the decommissioning for the proposed redevelopment under Rule 1156. A summary of prior agency engagement with the RCP is provided in Table 7 below.

Table 7: Prior Agency Engagement

Agency	Timeframe	Relevant Inspections/Permits	Function	Status
SCAQMD	1970s - 2018	Rule 1156	Monitor air quality of cement manufacturing process	Ongoing
SARWQCB	1973 - 2017	Waste discharge requirements Order 78-27 and 98-77, boiler blowdown pond closure	Regulate RCP waste discharge, oversee the closure of the boiler blowdown pond	Closed
RCDEH	1986 - 2017	Closure of USTs/ASTs, white kiln pipeline release closure		Closed
EPA	1990 - 1994	Potential groundwater impacts from CKD containing soil	Oversight of groundwater impacts lead by the RWQCB.	Closed
DTSC	2006 - 2018	Overall Site assessments		Ongoing

In conjunction with the South Coast Air Quality Management District's (SCAQMD) post-closure requirement of SCAQMD's Rule 1156 permit as proposed in the Compliance Plan for Post-Closure Activities (AECOM, 2016), soil samples will be collected and analyzed for Hexavalent Chromium across the Site. This proposed sampling is intended to be conducted concurrently with the proposed sampling program presented in this SAWP. The workplan for proposed hexavalent chrome sampling titled, Hexavalent Chromium Sampling Work Plan, dated 10 May 2017, has been submitted to the SCAQMD for review and approval. As part of the review process, the SCAQMD requested that the DTSC provide feedback on the work plan, which DTSC provided to the SCAQMD in an email dated, 22 February 2018. SCAQMD responded in an email dated 24 May 2018 regarding the Rule 1156 Compliance Monitoring and Post-Closure Activities Plans indicating they are reviewing the document and incorporating DTSC's recommendations and will approve the document within a few days of the date of their response email. The sampling and analytical results from the hexavalent chromium sampling plan will be incorporated into the summary of findings report as well as be used to address some of the areas identified by DTSC in their comments to the PEA (Appendix A).

6.0 PREVIOUS SITE INVESTIGATIONS

Surface Mining and Crushing Study Area

Investigations regarding CKD containing soil and potential impacts to groundwater in this study area were conducted from 1990 to 2009 with agency oversight from the EPA, SCAQMD, and DTSC. The investigations were conducted to assess the potential for metal impacts to groundwater. Soil samples were collected from CKD containing soil areas and several monitoring wells on the Site were sampled. The CKD soil containing areas had concentrations of total chromium in soil at a maximum of 4.6 milligrams/kilogram (mg/kg) and concentrations of lead at a maximum of 106 mg/kg in 1990. Chromium concentrations in the monitoring wells did not exceed 13 micrograms per liter (mg/L) which is below the California maximum contaminant level (MCL) of 50 ug/L. Further details regarding these investigations are provided in Table 8 (see Appendix B).

White Cement Plant

The boiler blowdown pond, USTs, and former white kiln pipeline release were investigated between 1991 and 1997. Agency oversight was primarily provided by the RCDEH or the SARWQCB. A UST investigation were conducted to close out the two USTs in the study area during the late 1980s. The two USTs received an No Further Action (NFA) from the RCDEH in 1997. The boiler blowdown pond was closed out by the SARWQCB after excavation of the area was conducted and a liner was put in place. The former white kiln pipeline release occurred in 1993. In order to achieve closure, impacted soil was delineated and excavated in the mid-1990s by Ryan-Murphy, Incorporated (RMI). Confirmatory samples were analyzed for TRPH and ranged from non-detect to 15 mg/kg. Further details regarding these investigations are provided in Table 9 (see Appendix B).

Grey Cement Plant

Historical investigations at the Grey Cement Plant involved an evaluation of groundwater impacts and the closure of a diesel UST from 1988 to 1996. RCDEH oversaw the diesel UST closure, which received an NFA in 1991. Groundwater investigation included the sampling of wells MW-1 and Well 88-1 were under RWQCB and EPA oversight. The groundwater analytical results did not report total chromium concentrations above13 mg/L, which is below the MCL of 50 mg/L. Table 10 provides further details regarding the groundwater investigation and UST

closure (see Appendix B).

Material Storage Area

The Material Storage Area primarily contained dry material storage such as clinker or raw product, which included clay or limestone. No historical investigations were conducted in this study area.

Maintenance, Administration, and Packaging

A number of investigations regarding the closure of six (6) USTs/ASTs were conducted in this study area. These investigations took place between 1987 and 1999, primarily under RCDEH oversight. The six (6) USTs/ASTs received NFAs from the RCDEH in 1991 and 1997. Further details regarding these investigations are provided in Table 11 (see Appendix B).

Vacant Land

No historical investigations were conducted in this study area.

7.0 PREVIOUS LANGAN INVESTIGATIONS

Between 2016 and 2017, Langan conducted field investigations across the Site to confirm information documented in previous investigations by others regarding constituents of potential concerns (COPCs) and to investigate additional areas on Site that were either not previously evaluated and/or there were potential data gaps with regards to COCs based on historical Site operations. This investigation involved implementing a soil assessment program that included trench sampling and soil borings and sampling using hollow stem augers.

The information collected previously and from the proposed sampling program presented in this SAWP will be used to evaluate potential environmental concerns regarding contact with impacted materials during future Site development activities that will include demolition and mass grading operations. In addition, the information will also be used to evaluate soil conditions to assist in the preparation of a Soils Management Plan that will provide criteria to determine the use and/or proper placement of soils onsite during mass grading operations or the potential need for offsite disposal depending on constituents screening criteria.

In addition, groundwater sampling events were conducted in November/December 2016, March 2017, and May 2017 at monitoring wells MW-3, MW-4, and the Northern Monitoring Well with a submersibile pump. Surface water samples were also collected from the Crestmore Lake with a stainless steel dipper. Soil samples collected from the trenches were analyzed for constituents such as metals and TPH. The laboratory analyses were chosen based on information developed for Langan's Phase I ESA, understanding of the historical operations and chemicals used or likely used in specific areas, and the results from previous investigations by others as documented in Langan's PEA. In addition, visual and PID screening of soils obtained from the test pits and observations of soils collected from the test pits investigations. The locations of the trench sampling are shown in Figure 2.

Surface, Mining, and Crushing

Langan excavated several trenches in this study area to determine the chemical composition of soils within these areas to determine the presence of CKD containing soils. In addition, where possible, the trenching effort was used to visually delineate the boundaries of CKD containing soil. Select soil samples collected from trenches were analyzed for metals in this area. The metals concentrations reported from the samples did not exceed their respective Environmental Screening Levels (ESLs), with the exception of LT-21, which had a nickel

concentration of 150 mg/kg that exceeded the nickel ESL (86.3 mg/kg). Details regarding Langan's investigations for this study area are provided in Table 12 (see Appendix B).

White Cement Plant

Langan excavated six trenches within the White Cement Plant study area at specific location based on prior Site information. The trenches were used to visually confirm prior investigation information. Select trenches were not sampled due to no visual evidence of residual impacts observed based on visual and PID screening of soils obtained from the test pits and observations of soils collected from the test pits investigations. Samples were taken from select trenches and analyzed for metals and/or TPH, PCBs, SVOCs, and VOCs. The results indicated that the samples analyzed did not have constituents that exceeded their respective ESLs. Details regarding Langan's investigations for this study area are provided in Table 13 (see Appendix B).

Grey Cement Plant

Langan conducted trenching at the 10,000 gallon diesel UST, former ASTs, transformers and North/East/South berms. Laboratory analyses were not performed at two trenches (LT-18 and LT-14) based on visual indicators from these trenches. Of the samples that were collected and analyzed, no PCBs or metals exceeding their respective ESLs were detected. Details regarding Langan's investigations for this study area are provided in Table 14 (see Appendix B).

Material Storage Area

Langan excavated nine (9) trenches in the Material Storage Area to investigate the former dust suppressant ASTs, clinker/raw material storage area and the eastern berms. Samples were collected and analyzed for TPH and/or metals. With the exception of arsenic, metals and TPH were below their respective ESLs. Arsenic was detected above ESLs but was below regional background levels published by DTSC. Details regarding Langan's investigations for this study area are provided in Table 15 (see Appendix B).

Maintenance, Administration, and Packaging

Langan excavated 14 trenches throughout the Maintenance, Administration, and Packaging to assess potential soil impacts or to verify residual impacts identified in historical reports. LT-9 (Former Sag Pond) had a maximum TPH concentration of 1,700 mg/kg. Samples from the

remaining trenches were analyzed for TPH, metals, VOCs and/or SVOCs. With the exception of arsenic at LT-9, LT-12, LT-40, LT-42, LT-43, and LT-46, metals, VOCs, and SVOCs did not exceed their respective ESLs. Arsenic detected above ESLs were below background levels in this study area. Details regarding Langan's investigations for this study area are provided in Table 16 (see Appendix B).

Vacant Land

Three trenches were excavated in the vacant land study area. Two trenches are located on the northern berms to determine composition of fill areas to be cut during grading and one trench (LT-4) was chosen to represent background concentration/conditions. With the exception of arsenic at LT-4, metals were not detected above their respective ESLs. Arsenic at LT-4 was detected above its ESL but below background concentrations. Details regarding Langan's investigations for this study area are provided in Table 17 (see Appendix B).

Based on prior investigations and analytical data, the Site-specific metals concentrations are represented below.

With the exception of arsenic, metals concentrations in soil were below the lowest of the selected screening levels. Arsenic was detected in 30 of the 40 samples analyzed for metals at concentrations ranging from 1.4 to 14 mg/kg. Arsenic concentrations measured throughout the site exhibit an approximate normal distribution, with 95% of results falling within two standard deviations of the mean and all results falling within three standard deviations of the mean. Based on a review of Bradford, 1996 and Chernoff, 2008, background concentrations of arsenic in Southern California soils typically range from 1 to 10 mg/kg, which is in the range of the concentrations reported for the site.

Hexavalent Chromium Soil Sampling

On 21 March 2018 Langan personnel collected a total of ten (10) soil samples (CKDNP-1 through CKDNP-10) from specific areas of the Site where there is cement kiln dust (CKD) to determine the chemical composition of the material. The locations of the samples are shown on Figure 2.

The soil samples were collected by hand using a standard shovel. At each location, an approximately 8-inch to 12-inch small pit was dug and the soil was placed in two, 8-oz. laboratory supplied glass jars and sealed with a screw cap. The shovel was cleaned prior to

sampling and between sample locations using a wire brush to remove soil from the end of the shovel. The sample containers were placed in an ice chest, recorded on a chain of custody (COC) and relinquished to SunStar Laboratories, Inc. (Lake Forest, California) for chemical analyses. The samples were analyzed for Title 22 Metals and Hexavalent Chromium (Cr^{VI}) using EPA Methods 6010/7000 series and EPA Method 7199, respectively, on a normal turnaround basis. Descriptions of the soil types, locations where the samples were collected; and analytical results are summarized in Table 18 (see Appendix B).

Analytical Results

The analytical results were compared to the Department of Toxic Substance Control (DTSC) industrial Screening Levels (SLs), dated February 2018, the San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Level (ESL) for shallow soil for commercial/industrial exposure, dated February 2016 (Rev. 3), and Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) for industrial soil, dated November 2017.

According to the results, all 10 samples exceeded the industrial screening levels for arsenic reported in Table 18. The reported concentrations (5.8 mg/kg to 15 mg/kg) for arsenic are within the range of background concentrations that are reported in the region (Bradford, 1996 and Chernoff, 2008). Cadmium was reported slightly above the DTSC industrial SL of 7.3 mg/kg in one sample, CKDNP-8 (8 mg/kg). Thallium was reported above the EPA and RWQCB industrial RSL and ESL of 12 mg/kg and 11.7 mg/kg, respectively, in one sample, CKDNP–10 (15 mg/kg). Mercury was reported above the DTSC industrial SL of 4.5 mg/kg in two samples, CKDNP-1 (13 mg/kg) and CKDNP-10 (5 mg/kg). Hexavalent chromium was reported above the EPA and RWQCB industrial RSL and ESL of 6.3 mg/kg and 6.2 mg/kg, respectively, in two samples, CKDNP-4 (17 mg/kg) and CKDNP-6 (10 mg/kg). The other eight samples were reported below the industrial screening levels for hexavalent chromium.

8.0 PROPOSED INVESTIGATION PLANS

Based on previous investigation results and discussions with DTSC and AQMD, Langan proposes to conduct a supplemental Site-wide assessment and sampling event consisting of trenches, soil-gas borings, and soil borings. It should be recognized that much of the RCP infrastructure is still in place; certain areas are difficult to access and will therefore be addressed during decontamination, demolition, and grading operations. The areas to be addressed during the decontamination, demolition, and grading operations are presented in Table 19 (Appendix B).

In order to evaluate potential soil re-use for on-site soil (DQO-2), there are three primary areas that are proposed to be analyzed for soil characterization and re-use potential. These areas consist of the former Wet Weather Quarry, the soil stockpile/berms located along the eastern portion of the Site, and the upper five feet of soils throughout the Site (i.e. SW-20). A proposed cut/fill map with the proposed DQO-2 sampling locations is presented in Figure 4. The proposed DQO-2 sampling points, analyses, and approximate cut/fill amounts are presented in the table (Table 20) below:

Table 20: DQO-2 Sampling Locations

Study Area	BUILDING/STRUCTURE	FEATURE	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	Cut (-)/Fill (+)
SMC	Wet Weather Quarry	Wet Weather Quarry	Determine depth to water and chemical concentrations in the soil above water table. Analyze for CrVI and metals.	--	--	--	SMC-SB1	1	20	(+) 37
				--	--	--	SMC-SB2	1	20	(+) 35
GCP	North/East/South Berms	North/East/South Berms	CKD containing soil. Potential CrVI. Analyze for CrVI and metals.	GCP-LT7	1	20	--	--	--	(-) 26
				GCP-LT8	1	20	--	--	--	(-) 19
				GCP-LT9	1	20	--	--	--	(-) 36

Study Area	BUILDING/STRUCTURE	FEATURE	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	Cut (-)/Fill (+)
				GCP-LT10	1	20	--	--	--	(-) 29
				GCP-LT11	1	20	--	--	--	(-) 35
MSA	Eastern Berms	Eastern Berms	Potential CrVI. Addressed in AQMD CrVI Sampling Plan.	MSA-LT1	1	20	--	--	--	(-) 25
				MSA-LT2	1	20	--	--	--	(-) 25
				MSA-LT3	1	20	--	--	--	(-)24
				MSA-LT4	1	20	--	--	--	(-) 21
VL	Northern Berms	Northern Berms	CKD containing soil. Potential CrVI. Analyze for CrVI and metals.	VL-LT1	1	20	--	--	--	(-) 16
VL	NW Corner of Northern Parcel	NW Corner of Northern Parcel	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-1	1	5	--	--	--	(+) 4
VL	NW Corner of Northern Parcel	NW Corner of Northern Parcel	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-2	1	5	--	--	--	(+) 6
MAP	Northwest of center of former Fleet Truck Parking	Former Agriculture Division	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-3	1	5	--	--	--	(+) 12
VL	Northern Parcel	Northern Parcel	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-4	1	5	--	--	--	(+) 9
VL	Northern Parcel	Northern Parcel	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-5	1	5	--	--	--	(-) 9
VL	Northern Parcel	Northern Parcel	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-6	1	5	--	--	--	(-) 5
VL	Northern Berms	Northern Berms	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-7	1	5	--	--	--	(-) 20

Study Area	BUILDING/STRUCTURE	FEATURE	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	Cut (-)/Fill (+)
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-8	1	5	--	--	--	(-) 5
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-9	1	5	--	--	--	(-) 14
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-10	1	5	--	--	--	(-) 14
MAP	East of Former Fleet Truck Parking	East of Former Fleet Truck Parking	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-11	1	5	--	--	--	(+) 18
MAP	North of Former Boiler Shop	6,000,000 Gallon Bunker C Fuel Oil UST	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-12	1	5	--	--	--	(+) 8
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-13	1	5	--	--	--	(-)21
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-14	1	5	--	--	--	(-)14
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-15	1	5	--	--	--	(-) 8
GCP	East Berm	East Berm	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-16	1	5	--	--	--	(-) 40
GCP	North of Former Boiler House	Former Diesel UST 10,000 Gallons	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-17	1	5	--	--	--	(-) 3
MAP	South of Former Boiler Shop	South of Former Boiler Shop	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-18	1	5	--	--	--	(+) 6
SMC	Northwest of Wet Weather Quarry	Northwest of Wet Weather Quarry	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-19	1	5	--	--	--	(-) 9
MAP	Southwest of Former Spray Pond	Hazardous Waste Storage Pad	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	MAP-SG-4-SW-20	1	5	--	--	--	(+) 15

The subsection below provides the proposed investigation approach including the rationale by study area.

Table 21: Proposed Investigation Plan (Surface, Mining, and Crushing)

BUILDING/ STRUCTURE	FEATURE	Data Quality Objective (DQO) No.	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)
Surface Mining and Crushing	CKD Containing Soil	--	Prior investigations identified lateral and vertical delineation. No further investigation warranted.	--	--	--	--	--	--
Northwest corner of surface, mining, and crushing area	Former Secondary Reduction	--	No known source. Addressed in decon/demo and Soil Management Plan (SMP).	--	--	--	--	--	--
Former Iron Ore Storage	Former Iron Ore Storage	DQO-1	No previous investigation. Potential source of metals. Analyze for CrVI and metals.	SMC-LT-1	1	20	--	--	--
South of Secondary Reduction	South of Secondary Reduction	DQO-1	Analyze for metals, CrVI, and dioxins	SMC-LT-2	1	20			
Southeast of Secondary Reduction	Staging area near Secondary Reduction	DQO-1	Analyze for metals, CrVI, and dioxins	SMC-LT-3	1	20			
Wet Weather Quarry	Wet Weather Quarry	DQO-1 DQO-2	Determine depth of fill and chemical concentrations in the fill. Analyze for CrVI and metals.	--	--	--	SMC-SB-1	1	20
				--	--	--	SMC-SB-2	1	20
East of Former Secondary Reduction	Transformer	--	No known source. Addressed in decon/demo and SMP.	--	--	--	--	--	--
Northwest of Wet Weather Quarry	Northwest of Wet Weather Quarry	DQO-2	SCAQMD CrVI Sampling. Analyze for TPH, CrVI, metals, and PCBs	SW-19	5 composite	5			

Table 22: Proposed Investigation Plan (White Cement Plant)

BUILDING/ STRUCTURE	FEATURE	Data Quality Objective (DQO) No.	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)
Boiler Blowdown Pond	Boiler Blowdown Pond	DQO-1	Previous investigation found no metals in exceedence of ESLs. No prior CrVI or VOC information - analyze for CrVI, TPH, VOCs, and metals	--	--	--	WCP-SB-1	1	20

BUILDING/ STRUCTURE	FEATURE	Data Quality Objective (DQO) No.	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)
South of Boiler Blowdown Pond	Two Former Diesel USTs 12,000 Gallons	DQO-1	Analyze for TPH and VOCs using EPA Method 8260B.				WCP-SG-1	1	15
							WCP-SG-2	1	15
Boiler Blowdown Pond	No. 6 (Bunker C) Fuel Oil 210,000 Gallon AST	--	WCP-SB1 will cover this area. Previous investigation did not analyze for CrVI, VOCs, and SVOCs.	--	--	--	----	--	--
White Kiln Pipeline and Diesel Pump	2 Former 12,000 Gallon Diesel UST	--	Received NFA from RCDEH in 1997. 2016 investigation identified no impacts. See WCP-SG-1 and WCP-SG-2 above.	--	--	--	----	--	--
	Former White Kiln Pipeline Leak	--	2016 investigation identified no impacts. No further investigation warranted.	--	--	--	----	--	--
Finish Mill	Diethylene Glycol AST	--	Cleaned and decommissioned in 2014. Addressed in decon/demo and SMP.	--	--	--	----	--	--
	Acetic Acid (80%) AST	--	Cleaned and decommissioned in 2014. Addressed in decon/demo and SMP.	--	--	--	----	--	--
Southeast of White Kilns	Sewer Alignments	--	Previous investigation identified no impacts. Addressed in decon/demo and SMP.	--	--	--	----	--	--
Raw Mix Silos	Raw Mix Silos	--	No known source. Addressed in decon/demo and SMP.	--	--	--	----	--	--
Raw Mills	Raw Mills	--	No known source. Addressed in decon/demo and SMP.	--	--	--	----	--	--
Feed Silos	Feed Silos	--	No known source. Addressed in decon/demo and SMP.	--	--	--	----	--	--
Kilns	Kilns	DQO-1	Previously not analyzed for TPH, CrVI, metals, SVOCs, PAHs, PCBs, and dioxins.	WCP-LT-1	1	20	----	--	--
				WCP-LT-2	1	20	----	--	--
				WCP-LT-3	1	20	----	--	--
				WCP-LT-4	1	20	----	--	--
Clinker Silos	Clinker Silos	--	No known source. Addressed in decon/demo and SMP.	--	--	--	----	--	--
Former Dryers	Former Dryers	--	No known source. Addressed in decon/demo and SMP.	--	--	--	----	--	--
South of Finish Mills	Transformers (2)	--	No known source. Addressed in decon/demo and SMP.	--	--	--	----	--	--
South of Feed Silos	Transformer	--	No known source. Addressed in decon/demo and SMP.	--	--	--	----	--	--

Table 23: Proposed Investigation Plan (Grey Cement Plant)

BUILDING/ STRUCTURE	FEATURE	Data Quality Objective (DQO) No.	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)
North of Boiler House	Former Diesel UST 10,000 Gallons	--	Received NFA from RCDEH in 1991. See GCP-SG-1 below.	--	--	--
Southwest of Former Finish Grind Feed Bins	Former Water Coolers	DQO-1	Potential CrVI usage. Analyze for CrVI and metals.	GCP-LT-1	1	20
Crushing Storage Silos	Crushing Storage Silos	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Former Clinker Hopper	Former Clinker Hopper	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Boiler House	Boiler House	--	No known source. Addressed in decon/demo and SMP. During SAWP if boiler house is identified/located a discrete sample for (i.e, metals, CrVI) from SW-17 area will be collected.	--	--	--
Kiln Feed Silos	Kiln Feed Silos	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Former Motor Control Building	Former Motor Control Building	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Former Mill Motor Building	Former Mill Motor Building	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Former Motor Control Center 1	Former Motor Control Center 1	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Former Motor Control Center 2	Former Motor Control Center 2	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Former Motor Control Center 3	Former Motor Control Center 3	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Former Grey Kiln 1 & 2	Former Grey Kiln 1 & 2	DQO-1	Previously not analyzed for dioxins or CrVI. Analyze for TPH, CrVI, metals, SVOCs, PAHs, PCBs, and dioxins	GCP-LT-2	1	20
				GCP-LT-4	1	20
Baghouses	Baghouses	DQO-1	Previously not analyzed for dioxins or CrVI. Analyze for CrVI, metals, SVOCs, PAHs, and dioxins	GCP-LT-3	1	20
Chino Substation	Chino Substation	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Former Raw Mills	Former Raw Mills	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Former Finish Grind Feed Bins	Former Finish Grind Feed Bins	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Former Finish Mills	Former Finish Mills	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Northwest corner of Grey Cement Plant	Former Diethylene Glycol AST 12,000 Gallons	DQO-1	Previous investigation did not analyze for CrVI or metals. Analyze for TPH, metals, CrVI, SVOCs, PAHs, and PCBs.	GCP-LT-5	1	20
Northwest corner of Grey Cement Plant	Former Tall Oil AST 10,000 Gallons	--	Previous investigation did not analyze for CrVI or metals. GCP-LT5 will cover this tank area.	--	--	--
East of Former Motor	Electrical Conduit Corridor	--	No known source. Addressed in decon/demo and SMP.	--	--	--

BUILDING/ STRUCTURE	FEATURE	Data Quality Objective (DQO) No.	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)
Control Bldg.						
West of Former MCC-1	Former Propane Tank	--	Addressed in decon/demo and SMP.	--	--	--
North of former Motor Control Center 2	Former Sodium Hypochlorite AST	--	Decommissioned and removed. Addressed in decon/demo and SMP.	--	--	--
West of former sodium hypochlorite AST	Mine Air Vent	--	No known source. Address in decon/demo and SMP.	--	--	--
Former Coal Storage	Former Coal Storage	DQO-1	No previous investigation done. Potential dioxins and SVOCs. Analyze for CrVI, metals, SVOCs, PAHs, and dioxins.	GCP-LT-6	1	20
North of Former Boiler House	Former Diesel UST 10,000 Gallons	DQO-1	Analyze for TPH and VOCs using EPA Method 8260B.	GCP-SG-1	1	15
Well 88-1	--	--	Addressed in well decommissioning plan	--	--	--
MW-1	--	--	Addressed in well decommissioning plan	--	--	--
North/East/ South Berms	North/East/South Berms	DQO-2 DQO-3	CKD containing soil. Potential CrVI. Analyze for CrVI, dioxins, and metals.	GCP-LT-7	1	20
				GCP-LT-8	1	20
				GCP-LT-9	1	20
				GCP-LT-10	1	20
				GCP-LT-11	1	20
Throughout Study Area	Transformers	--	Addressed during the decon/demol and SMP.	--	--	--
East Berm	East Berm	DQO-2	SCAQMD CrVI Sampling. Analyze for CrVI, TPH, metals, and PCBs.	SW-16	5 composite	5
North of Former Boiler House	Former Diesel UST 10,000 Gallons	DQO-2	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-17	5 composite	5

Table 24: Proposed Investigation Plan (Material Storage Area)

BUILDING/ STRUCTURE	FEATURE	Data Quality Objective (DQO) No.	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)
Dust Suppressant ASTs	Dust Suppressant ASTs	--	Decommissioned and removed. No further investigation warranted.	--	--	--
Crushed Rock Storage Area	Crushed Rock Storage Area	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Former Gypsum Storage	Former Gypsum Storage	--	No known source. Addressed in decon/demo and SMP.	--	--	--
Clinker/Raw Material Storage Area	Clinker/Raw Material Storage Area	--	Addressed in AQMD CrVI Sampling Plan	--	--	--
Eastern Berms	Eastern Berms	DQO-2 DQO-3	Potential CrVI. Addressed in AQMD CrVI Sampling Plan. Analyze for metals, CrVI, and PCBs.	MSA-LT-1	1	20
				MSA-LT-2	1	20

BUILDING/ STRUCTURE	FEATURE	Data Quality Objective (DQO) No.	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)
				MSA-LT-3	1	20
				MSA-LT-4	1	20
Clinker/Raw Material Storage Area	Clinker/Raw Material Storage Area	DQO-1	Analyze for metals, CrVI, TPH, SVOCs, and PAHs	MSA-LT-5	1	20
Raw Material Storage Bay	Raw Material Storage Bay	DQO-2	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-8	5 composite	5
Raw Material Storage Bay	Raw Material Storage Bay	DQO-2	SCAQMD CrVI Sampling. Analyze for CrVI, TPH, metals, and PCBs.	SW-9	5 composite	5
Raw Material Storage Bay	Raw Material Storage Bay	DQO-2	SCAQMD CrVI Sampling. Analyze for CrVI, TPH, metals, and PCBs.	SW-10	5 composite	5
Raw Material Storage Bay	Raw Material Storage Bay	DQO-2	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-13	5 composite	5
Raw Material Storage Bay	Raw Material Storage Bay	DQO-2	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-14	5 composite	5
Raw Material Storage Bay	Raw Material Storage Bay	DQO-2	SCAQMD CrVI Sampling. Analyze for CrVI, TPH, metals, and PCBs.	SW-15	5 composite	5

Table 25: Proposed Investigation Plan (Maintenance, Administration, and Packaging)

BUILDING/ STRUCTURE	FEATURE	Data Quality Objective (DQO) No.	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)
West of Former Agriculture Division	Former Parking (Northwest)	DQO-1	Pesticides/herbicides commonly used in agriculture. Analyze for pesticides/herbicides, TPH, and CrVI.	MAP-LT-1	1	20	--	--	--
Northwest of center of former Fleet Truck Parking	Former Agriculture Division	--	LT-1 addresses this feature.	--	--	--	--	--	--
Northwest of center of former Fleet Truck Parking	Abandoned Substation	--	No previous indication of impacts. Addressed in decon/demo and SMP.	--	--	--	--	--	--
East of Transportation Office	Former Fleet Truck Parking	DQO-1	No previous investigation. Analyze for TPH, CrVI, metals, PAHs, and SVOCs.	MAP-LT-2	1	20	--	--	--
Transportation Office	Transportation Office	--	No known source. Addressed in decon/demo and SMP.	--	--	--	--	--	--
Former Garage Salvage Yard	Former Gasoline UST 10,000 gallons	DQO-1	NFA received in 1997. No impacts identified in 2016. Potential VOCs and TPH in soil vapor.	--	--	--	MAP-SG-1	1	15
Garage and Administrative Building	Washrack Discharge Point	DQO-1	No previous investigation. Potential VOCs, TPH, CrVI, and metals.	MAP-LT-3	1	20	--	--	--
Garage and Garage Storeroom	Former 3-Stage Clarifier	--	Addressed in decon/demo.	--	--	--	--	--	--
	Former Waste Oil AST 250	--	No visual evidence of impacts from prior investigation. Addressed in	--	--	--	--	--	--

BUILDING/ STRUCTURE	FEATURE	Data Quality Objective (DQO) No.	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)
	Gallons		decon/demo and SMP.						
	Former Diesel UST 1,000 gallons	DQO-1	NFA received in 1997. Potential VOCs and TPH in soil vapor.	--	--	--	MAP-SG-2	1	15
	Former Gasoline UST 2,000 gallons	--	MAP-SG2 will cover this area.	--	--	--	--	--	--
	Former Diesel UST 10,000 gallons	DQO-1	Received NFA from RCDEH. Analyze for TPH and VOCs using EPA Method 8260B.	--	--	--	MAP-SG-3	1	15
Garage and Garage Storeroom	Former Waste Oil UST 550 Gallons	DQO-1	Previous investigation performed. Analyze for TPH, CrVI, metals, VOCs, and SVOCs	--	--	--	MAP-SB-1	1	20
Garage and Garage Storeroom	Former Waste Oil UST 550 Gallons	DQO-1	Analyze for TPH and VOCs using EPA Method 8260B.	--	--	--	MAP-SG-7	1	15
Former Spray Pond	Former Suction Sump	--	Addressed in decon/demo and SMP	--	--	--	--	--	--
Northeast of former spray pond	Former Sag Pond	--	Addressed in decon/demo and SMP	--	--	--	--	--	--
Former Fleet Truck Parking	Settling Areas	--	No previous investigation. Analyze for TPh, CrVI, metals and SVOCs.	MAP-LT-2, see Fleet Truck Parking above	--	--	--	--	--
Former 6M gallon tank/reservoir	Settling Areas	--	Addressed in decon/demo and SMP	--	--	--	--	--	--
Former Crane/ former Clinker Hoppers	Settling Areas	--	Addressed in decon/demo and SMP	--	--	--	--	--	--
Former Power House	Settling Areas	DQO-1	Addressed in decon/demo and SMP	--	--	--	--	--	--
Southwest of Former Spray Pond	Hazardous Waste Storage Pad	--	No soil gas investigation previously. Potential VOCs and TPH in soil vapor.	--	--	--	MAP-SG-4	1	15
Stormwater Retention Basin	Stormwater Retention Basin	--	Previous investigation found no impacts. No further investigation warranted	--	--	--	--	--	--
Crestmore Substation	Former Diesel AST 1,000 Gallons	DQO-1	No visual evidence of impacts from prior investigation. Addressed in decon/demo and SMP.	--	--	--	--	--	--
North of Former Boiler Shop	6,000,000 Gallon Bunker C Fuel Oil UST	DQO-1	Confirmatory sampling below prior excavation depth.	--	--	--	MAP-SB-2	1	50
				--	--	--	MAP-SB-3	1	50
6,000,000 Bunker C Fuel Oil Tank	Former Reservoir	--	Addressed in decon/demo and SMP	--	--	--	--	--	--
NE of former garage salvage yard	Well 60-1	--	Addressed in well decommissioning plan	--	--	--	--	--	--

BUILDING/ STRUCTURE	FEATURE	Data Quality Objective (DQO) No.	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)
Former Parking SE of 6M gallon tank	Former 1 Unleaded Gasoline/ 1 Diesel AST 2,000 Gallons each	--	ASTs decommisioned. No evidence of visual impacts from prior investigation. No further investigation warranted.	--	--	--	--	--	--
West of the Grey Silos	Former Propane Tank	--	Addressed in decon/demo and SMP.	--	--	--	--	--	--
Former Material Yard	Former Material Yard	DQO-1	Potential solvent use. Analyze for VOCs and TPH in soil vapor. Analyze for TPH, CrVI, metals, and VOCs in soil.	--	--	--	MAP-SG-5-SW-20	1 5 composite	15 5
Former Electric Shop	Former Electric Shop	--	Addressed in decon/demo and SMP.	--	--	--	--	--	--
Former Boiler Shop	Former Boiler Shop	DQO-1	Address in decon/demo and SMP. Evaluate soil vapor in general vicinity.	--	--	--	MAP-SG-6	1	15
Former Machine Shop	Former Machine Shop	--	Addressed in decon/demo and SMP.	--	--	--	--	--	--
Former Repair Shop	Former Repair Shop	--	Addressed in decon/demo and SMP. Covered by SG-6	--	--	--	--	--	--
Stores	Stores	--	Address in decon/demo and SMP. Covered by SG-6	--	--	--	--	--	--
Stockhouse	Stockhouse	--	Address in decon/demo and SMP	--	--	--	--	--	--
Packhouse	Packhouse	--	Address in decon/demo and SMP	--	--	--	--	--	--
Truck Loading	Truck Loading	--	Address in decon/demo and SMP	--	--	--	--	--	--
Compressor	Compressor	--	Address in decon/demo and SMP	--	--	--	--	--	--
Former Power House	Former Power House	DQO-1	No previous investigation. Analyze for TPH, CrVI, metals, and VOCs.	MAP-LT-4	1	20	--	--	--
Tube Mills	Tube Mills	DQO-1	No previous investigation. Analyze for TPH, CrVI, metals, and VOCs.	MAP-LT-5	1	20	--	--	--
Crane	Crane	DQO-1	No previous investigation. Potential CrVI and metals.	MAP-LT-6	1	20	--	--	--
Tunnel	Tunnel	--	Address in decon/demo and SMP	--	--	--	--	--	--
Two Plastic Silos	Two Plastic Silos	--	Address in decon/demo and SMP	--	--	--	--	--	--
Plastic Silo	Plastic Silo	--	Address in decon/demo and SMP	--	--	--	--	--	--
White Silos	White Silos	--	Address in decon/demo and SMP	--	--	--	--	--	--
Grey Silos (2)	Grey Silos (2)	--	Address in decon/demo and SMP	--	--	--	--	--	--
Silo (north of former powerhouse)	Silo (north of former powerhouse)	--	Address in decon/demo and SMP	--	--	--	--	--	--
Throughout study area	Transformers	--	No known source. Addressed in decon/demo and SMP.	--	--	--	--	--	--
Northwest of center of former Fleet Truck Parking	Former Agriculture Division	DQO-2	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-3	5 composite	5			
East of Former Fleet Truck Parking	East of Former Fleet Truck Parking	DQO-2	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-11	5 composite	5			

BUILDING/ STRUCTURE	FEATURE	Data Quality Objective (DQO) No.	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)
North of Former Boiler Shop	6,000,000 Gallon Bunker C Fuel Oil UST	DQO-2	SCAQMD CrVI Sampling. Analyze for TPH, CrVI, metals, and PCBs	SW-12	5 composite	5			
South of Former Boiler Shop	South of Former Boiler Shop	DQO-2	SCAQMD CrVI Sampling. Analyze for TPH, CrVI, metals, and PCBs	SW-18	5 composite	5			

Table 26: Proposed Investigation Plan (Vacant Land)

BUILDING/ STRUCTURE	FEATURE	Data Quality Objective (DQO) No.	Langan Rationale	Trench ID	No. Trench	Trench Depth (ft bgs)
Northern Berms	Northern Berms	DQO-2 DQO-3	CKD containing soil. Potential CrVI. Analyze for CrVI and metals	VL-LT-1	1	20
North	Northern Monitoring Well	--	Address in well decommisioning plan	--	--	--
NW Corner of Northern Parcel	2 Former Production Wells (NW)	--	Address in well decommisioning plan	--	--	--
NA	Background Analysis	DQO-1	Background sampling for CrVI, metals, and dioxins.	VL-LT-2	1	20
NA	Background Analysis			VL-LT-3	1	20
NW Corner of Northern Parcel	NW Corner of Northern Parcel	DQO-2	SCAQMD CrVI Sampling. Analyze for CrVI and metals.	SW-1	5 composite	5
NW Corner of Northern Parcel	NW Corner of Northern Parcel	DQO-2	SCAQMD CrVI Sampling. Analyze for TPH, CrVI, metals, and PCBs	SW-2	5 composite	5
Northern Parcel	Northern Parcel	DQO-2	SCAQMD CrVI Sampling. Analyze for TPH, CrVI, metals, PCBs, and Dioxins.	SW-4	5 composite	5
Northern Parcel	Northern Parcel	DQO-2	SCAQMD CrVI Sampling. Analyze for TPH, CrVI, metals, PCBs, and Dioxins.	SW-5	5 composite	5
Northern Parcel	Northern Parcel	DQO-2	SCAQMD CrVI Sampling. Analyze for TPH, CrVI, metals, PCBs, and Dioxins.	SW-6	5 composite	5
Northern Parcel	Northern Berms	DQO-2	SCAQMD CrVI Sampling. Analyze for TPH, CrVI, metals, and PCBs	SW-7	5 composite	5

The locations of the proposed trenches, borings, and soil gas points are shown in Figure 3. Per DTSC's request, two trenches (SMC-LT-2 and SMC-LT-3) have been added to the Surface, Mining, and Crushing area (refer to Table 21 above and Table 27 in the Appendix B). Samples

collected from these trenches will be analyzed for metals, CrVI, and dioxins. In addition a trench (MSA-LT-5) has been added to the Materials Storage Area (refer to Table 24 above and Table 27 in the Appendix B). Samples collected from this trench will be analyzed for metals, TPH, PAHs, CrVI , and SVOCs.

SCAQMD Hexavalent Chromium Sampling

The primary objective of the proposed sampling is to evaluate hexavalent chromium concentrations in shallow soils that may come into contact with workers during future activities involving demolition of Site structures and mass grading operations in preparation for future development of the Site. In addition, the proposed sampling will evaluate for Cr^{VI} soucres that could cause air quality impacts on-Site and off-Site.

The proposed SCAQMD Hexavalent Chromium Sampling Plan will consist of collecting composite samples from twenty (20) locations (SW-1 through SW-20) across the Site (Figure 3). These samples are designed to address DQO-2. With the exception of six (6) locations discussed below, the sampling scheme will consist of collecting samples from five (5) locations using an excavator with bucket attachment. The samples will be retrieved with hand tools or from the interior of the bucket of the excavator. Four of the samples will be collected in a step out (100 feet) radial pattern around a center point sample location. Samples will be collected at one feet and five feet at each trench location. Samples collected from locations in the Materials Storage Area (SW-8, SW-9, SW-10, SW-13, SW-14 and SW-15) will be collected in a linear pattern (i.e, north-south) to provide coverage for the specific bay they are located in. In addition, five shallow composite samples will be collected (0-2-inches) from five locations in the vacant lot area that include VL-LT-2, VL-LT-3, SW-4, SW-5, and SW-6 to evaluate surficial impacts. These locations will also have composite samples collected at 1 feet and 5 feet intervals. The shallow surficial samples will be collected using a hand trowel.

Samples collected from each depth interval (i.e., one foot) will be composited to create one representative sample from that depth interval at each of the twenty (20) locations. The same process will be conducted for samples collected at the five feet depth interval. The composite samples will be created by placing the soils from each depth interval per location into a stainless-steel bucket and mixed until homogeneous. The mixing will consist of using either hand tools (i.e., trowel) or power tools (i.e. drill with mixing paddle) that are of stainless steel construction. The twenty (20) composite samples for each depth interval for chemical analysis

will be placed in laboratory supplied glass jars, labeled, stored on ice, and transferred to a State-certified analytical laboratory under chain-of-custody protocol. The twenty (20) composite samples will be analyzed for hexavalent chromium using EPA Method 7199 and total metals using EPA method 6010/7000. The composite samples collected from ten (10) of the locations (SW-2, SW-4, SW-7, SW-9, SW-10, SW-12, SW-15, SW-16, SW-18, and SW-19) will also be analyzed for TPH and PCBs. The composite samples at 1 feet and 5 feet from the five locations on the vacant lot (VL-LT-2, VL-LT-3, SW-4, SW-5, and SW-6) will be used as background data and analyzed for metals, hexavalent chromium, and dioxins. The trowels, mixing paddles, hand augers, and any other equipment coming into contact with soils will be decontaminated prior to use at each location using a non-phosphate detergent such as Alconox and rinsed with clean water or a wire-brush to remove soil and debris from the tools. An additional detergent wash and final rinse should follow dry decontamination with a wire-brush.

8.1 DEMOLITION SAMPLING PLAN

As mentioned above, certain areas are inaccessible due to the presence of structures and buildings; therefore, an evaluation of potential soil impacts in these areas is not possible at this time. As discussed with DTSC, an evaluation of these inaccessible areas will be deferred until the decontamination and demolition phase of the project. Table 19 provides a breakdown of the areas that will be evaluated during the decontamination and demolition phase of the project. Cesium contained within the instrumentation and scales will be evaluated and handled during the abatement and decontamination and demolition phase of the project, which will be overseen by the City of Jurupa Valley or Riverside County. The proposed soil sampling and evaluation of the deferred areas will be coordinated with the DTSC during the removal of infrastructure. These areas generally consist of building foundations, concrete slabs, and other infrastructure. Infrastructure removal and soil sampling activities will be scheduled with advance notification to DTSC personnel so they can be present to visually observe and guide the infrastructure removal and sample collection, as needed. In addition to the proposed soil samples already identified, additional soil samples may be collected based on field observations (i.e. PID readings, visual discoloration). These samples are considered contingency soil samples during the decontamination and demolition activities. Soil sample collection is anticipated to be accomplished with a combination of hand auger and/or excavator using a bucket attachment. Details on the rationale for collection of soil samples and the types of analyses will be presented as an appendix in the decontamination and demolition plan.

The areas have been previously surveyed and tied to the California State Plane coordinate system using NAV 83, so that these areas can be accurately located for collection of potential contingency soil samples, if required, following removal of the infrastructure.

9.0 FIELD INVESTIGATION AND SAMPLING

Prior to conducting subsurface activities, Underground Services Alert (USA) will be contacted a minimum of 48-hours prior to commencing field activities. In addition, a private geophysical locating firm will be contracted to clear certain areas of potential underground utilities using ground penetrating radar (GPR) and other subsurface utility location techniques. Langan will mark the proposed borehole and test pit locations in advance of the utility clearance. During the mark-out, Langan will coordinate with an onsite representative who is familiar with the former RCP to confirm that each of the proposed boring and test pit locations are free of known subsurface utilities. In addition, DTSC has requested to be present for the marking of the locations and to provide input on the final selection of the locations.

The field work will be conducted under a Health and Safety Plan (see Appendix C) that will be prepared prior to mobilizing to the field. Field activities will be observed on a full time basis by a degreed, experienced Langan engineer, geologist or scientist under the supervision of a licensed professional geologist or engineer and documented in accordance with Section 10.0. Field observations will be recorded on field data sheets provided in Appendix D. Sampling tools, drilling equipment and other equipment coming into contact with soils will be decontaminated prior to use at each investigation location using a non-phosphate detergent such as Alconox and rinsed with clean water and/or a wire-brush to remove soil and debris from the tools.

Soil samples collected will be analyzed at a minimum for TPH, Cr^{VI}, PCBs and metals to address DQO-2. Soil samples with the highest concentration of Cr^{VI} in the Grey Cement Plant, White Cement Plant, Material Storage Area, and the Wet Weather Quarry will be further analyzed using the Synthetic Precipitation Leaching Procedure (SPLP). A subset of soil samples in the White Cement Plant (WCP-LT-1, WCP-LT-3, and WCP-LT-4) and Grey Cement Plant (GCP-LT-2, GCP-LT-3, GCP-LT-4) will be analyzed for SVOCs and polynuclear aromatic hydrocarbons (PAHs) using EPA Method 8270C based on the sample location. The soil vapor samples will be analyzed for TPH and VOCs using EPA Method 8260B by a California certified mobile laboratory.Analytical testing of soil samples and vapor samples will be conducted in accordance with Table 27 attached (see Appendix B).

Test Pits

Test pits will be excavated at locations marked and cleared for subsurface utilities. As presented in Section 8.0 above, soil will be excavated to a depth of up to 20 feet bgs at discretion of Langan field personnel by a subcontractor using an excavator or similar

equipment. Excavated soils will be stockpiled at least five feet from the edge of the excavation for further characterization and sampling, as necessary. Soil samples will be collected from the initially exposed side walls or pit floors to ensure slough material is not co-mingled with the samples.

Following completion of field observation and sampling activities, the test pits will be backfilled with excavated soils and partially compacted using the excavator bucket. Soil with suspected impacts based on photoionization detector (PID) readings will be wrapped in visqueen and analyzed. All test pit locations will be staked or marked to allow subsequent surveying of coordinates by Langan personnel for preparation of as-built drawings, as necessary.

Periodic dry decontamination of the excavator bucket will be conducted and if suspected contamination is encountered. This process will include removal of debris/soil that may be attached to the bucket using shovels and/or brushes. If necessary, the bucket will be cleaned with a pressure washer.

Soil Borings

The soil borings will be advanced using standard hollow-stem auger drilling equipment. Prior to advancing the hollow stem augers, the upper 5 feet will be hand augured in certain areas to verify clearance of utilities. These areas will include locations that cannot be readily confirmed with geophycial equipment. Split-spoon sampling will be performed during drilling operations to the total depth drilled. California ring samples will be collected at selected depths using a split barrel California sampler lined with brass rings in accordance with ASTM D3550. If the hollow-stem auguers are unable to achieve the desired depth due to refusal (i.,e., Wet Weather Quarry), other methods such as sonic will be considered. Soil samples will be field-screened using a PID, visually examined, and classified in the field in accordance with the Unified Soil Classification System (USCS). Soil samples exhibiting characteristics that may be indicative of potential environmental concerns (including staining, odors, VOC impacts, or evidence of non-native materials such as CKD) will be submitted to a California state-certified analytical laboratory for chemical analysis. Soil samples selected for laboratory analysis will be transferred to laboratory supplied sample containers for the appropriate testing, labeled, stored on ice, and transferred to a State-certified analytical under chain-of-custody protocol.

Based on previous investigations, groundwater is not anticipated to be encountered within 50 feet of the ground surface; however, two borings located in the Wet Weather Quarry (SMC-SB1 and SMC-SB2) may encounter groundwater. Upon completion, the boreholes will be backfilled with cement grout. Clean soil cuttings will be stockpiled near the borings and test pits for subsequent distribution to unimproved areas of the Site. Soil cuttings with suspected

contamination based on PID readings will be wrapped in visqueen and analyzed, if necessary, to evaluate for potential reuse onsite or offsite disposal. All boring locations will be staked or marked to allow subsequent surveying, if necessary.

Soil Gas Vapor Probes

The borings for the temporary soil gas vapor points proposed in Section 8.0 will be advanced with the hollow-stem auger used to drill and sample the soil borings discussed above. The soil gas vapor points will be nested at each location at five (5) feet and fifteen (15) feet bgs. The vapor points will be constructed of Teflon® tubing or similar to a soil vapor screen with a 1.5-inch length and 3/8-inch diameter for sample collection. Monterey kiln-dried sand will be used for the one foot filter pack, based on DTSC guidance, at the bottom of the vapor well borehole. The 1.5-inch screen will be set at the midpoint of the sand filter pack and place a one-foot layer of dry bentonite chips above the filter pack, followed by hydrated bentonite to the ground surface. The hydrated bentonite will serve as a seal around the sample collection tubing to prevent ambient air intrusion into the soil gas sample. A closed valve will be installed at the end of the sample-collection tubing at the surface. Soil gas vapor installation and sampling will be conducted in accordance with California Environmental Protection Agency (EPA) and Department of Toxic Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance) dated October 2011(Appendix E). Soil gas samples will be collected at a minimum of 48 hours following installation of the soil gas vapor probes. At least two rounds of soil gas samples will be collected from each of the soil gas vapor points.

Further details regarding sampling methodology and quality assurance/quality controls are presented in the Sampling Analysis Plan (SAP) and the Quality Assurance and Quality Control Plan (QAPP) (Appendix F and G, respectively).

10.0 DOCUMENTATION

Boring and test pit logs will be maintained and filled out for each location. In general, these logs will include the following information:

- Boring/test pit number
- Date
- Depth of completion
- Equipment type
- Soil description and USCS classification
- Depth to groundwater, if encountered
- Name of drilling or excavation subcontractor
- Project name
- Field observations

Field data sheets are included in Appendix D.

11.0 REPORTING

Upon completion of field investigation and receipt of laboratory analytical results, a Summary of Findings report will be generated. In general the Summary of Findings Report will consist of the following:

- Executive Summary
- Introduction
- Summary of Site Background
    - Site Description and Location
- Sampling Activities and Results
    - Summary of Activities
    - Boring Clearance and Geophysical Survey
    - Soil Gas Sampling and Analysis
    - Soil Sample Collection Procedures
    - Soil Matrix Analytical Results
        - Summary of Site Specific Background Results
        - Volatile Organic Compounds (VOCs)
        - Total Petroleum Hydrocarbons (TPHs)
        - Metals and Hexavalent Chromium (Cr^{VI})
        - Other Organics (PCBs, Dioxins, PAHs, SVOCs)
- Deviations from the SAWP
- Evaluation of Results
- Conclusions and Recommendations

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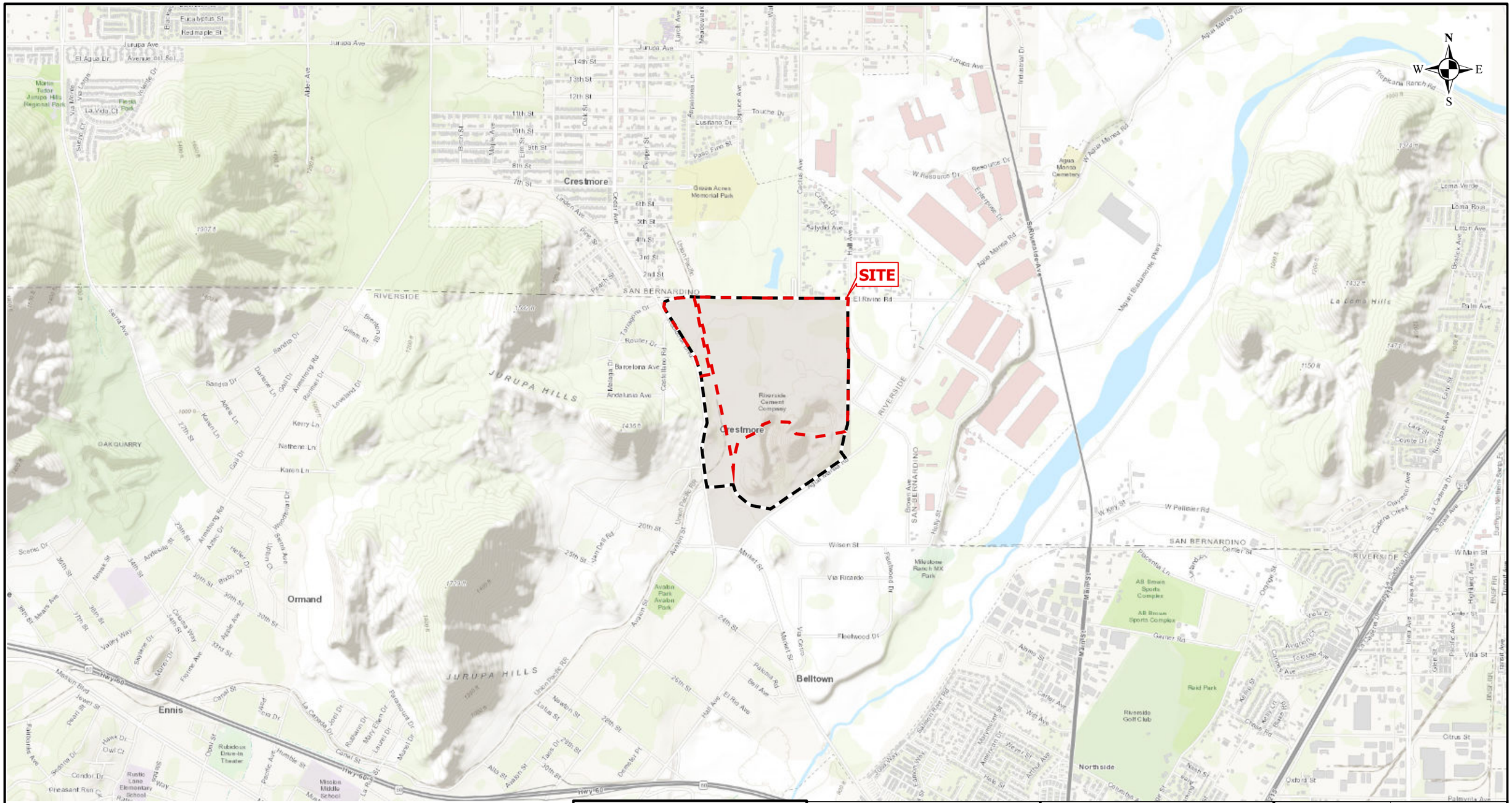
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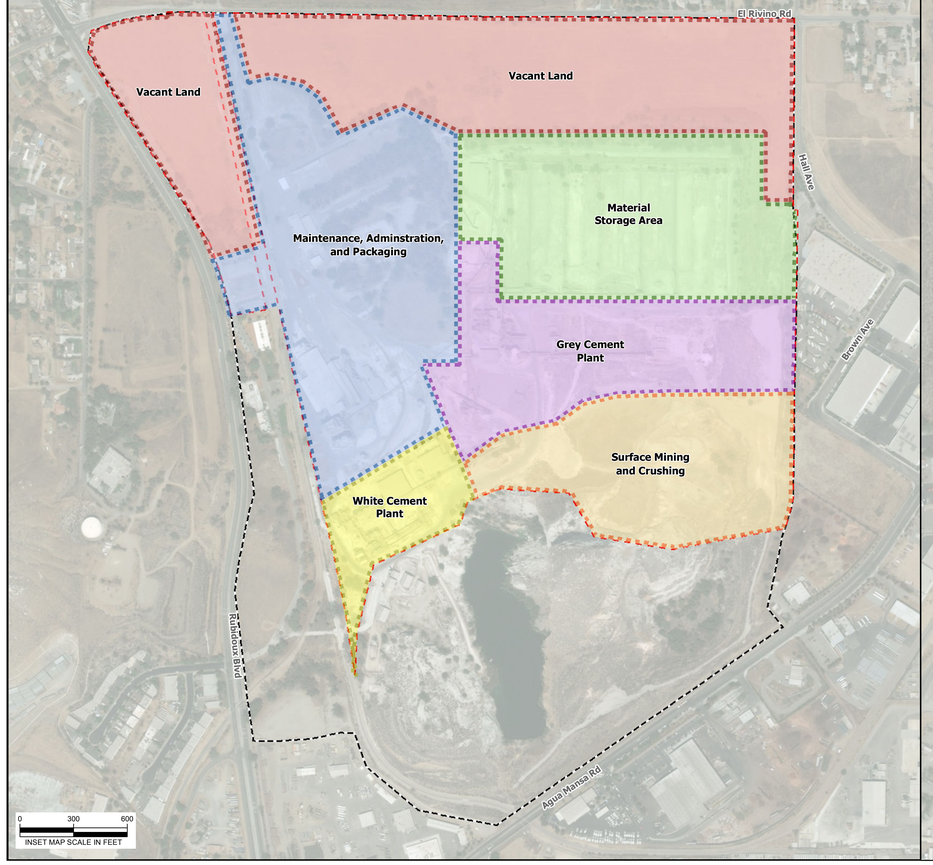
TABLES

(see Appendix B)

FIGURES


SITE
N
W
E
S
Crestmore
SAN BERNARDINO
RIVERSIDE
JURUPA HILLS
OAKQUARRY
Ormand
Ennis
Belltown
La Loma Hills
Northside
Jurupa Ave
El Rivino Rd
Agua Mansa Rd
Barcelona Ave
Andalusia Ave
Wilson St
Vista Ricardo
Fleetwood Dr
Market St
Riverside Cement Company
Green Acres Memorial Park
Agua Mansa Cemetery
Meadowlark Golf Course
Milestone Ranch MX Park
AB Brown Sports Complex
Reid Park
Riverside Golf Club
Mission Middle School
Rubidoux Drive-In Theater
Rustic Lane Elementary School
Hwy-60
Mission Blvd
Van Dell Rd
Union Pacific RR
Santa Ana River
Sierra Ave
Pedley Rd
Hall Ave
Main St
Iowa Ave
Garner Rd
Center St
Citrus St
Palmyra Ave
Oxford St
Tropicana Ranch Rd
Loma Verde
Loma Roja
Litton Ave
Palm Ave
Braddock Ave
Riverside Ave
Miguel Bustamante Pkwy
Irrelevant Dr
Resource Dr
W Resource Dr
Enterprise Dr
W Agua Mansa Rd
W Key St
W Pellissier Rd
Cajalco Creek
Clay Creek
Lark St
Coyote Dr
Pacific Ave
Orange St
Vine St
Linden St
Cedar Ave
Spruce Ave
Touche Dr
Lugliano Dr
Paso Fino St
Cactus Ave
Cricket Dr
Valydid Ave
Hall Ave
Meadowlark Ln
Lynch Ave
Alder Ave
Maple Ave
Elm St
Oak St
Pine St
Beech St
Peach St
Linden Pl
Eucalyptus St
Redmaple St
El Agua Dr
Avenue del Sol
Via Monte
Via Lorna
Sierra Ct
La Vida Ct
Volante Dr
Fiesta Park
Monte Tudor Jurupa Hills Regional Park
14th St
13th St
12th St
11th St
10th St
9th St
8th St
7th St
6th St
5th St
4th St
3rd St
2nd St
Barcelona Ave
Tarragona Dr
Roumer Dr
Castellano Rd
Malaga Dr
Sandra Dr
Darlene Ln
Gail Dr
Armstrong Rd
Roumer Dr
Loveland Dr
Areva Ln
Karen Ln
Kerry Ln
Nethene Ln
Glenn St
Brockton Ave
Scenic Dr
30th St
Howak St
34th St
Andalusia St
27th St
Armstrong Rd
Arbor Dr
Heller Dr
Bixby Dr
Rhoomar Dr
Sierra Ave
Wright Ct
Claudia Way
Valley Way
Skyline Dr
Maher Dr
Fenner Ave
Apple Ave
33rd St
Canal St
Jewel St
Pearl St
Fairbanks Ave
Sedona Dr
Condor Dr
Owl Ct
Hawk Dr
Pheasant Run
Joel Dr
Rathbun Dr
Mary Ellen Dr
Laurel Dr
Paramount Dr
Muriel Dr
Humble St
Pacific Ave
Owl St
La Cadena Dr
La Rica St
Newbin St
LaLisa St
Alta St
Avalon St
Tavis Dr
Demeter Pl
Belvil Ave
Palomar Rd
Market St
Via Cerro
Fairwood Dr
Avalon Park
Avalon Park
Avalon St
Union Pacific RR
Van Dell Rd
Wilson St
Vista Ricardo
Fleetwood Dr
Market St
Via Cerro
Belvil Ave
Palomar Rd
Hall Ave
El Rio Ave
Newbin St
LaLisa St
Alta St
Avalon St
Tavis Dr
Demeter Pl
Brown Ave
Hully St
Main St
Alamo St
Lemon Ave
Ivy Ave
Arthur Ave
Hole St
Nash St
Columbia Ave
Marylinda Dr
American Dr
Weyl St
Salmon Way
Zobay Way
Salmon River Rd
Placentia Ln
Island Dr
Orange St
Vista St
Iowa Ave
Pacific Ave
Arlington Ct
Tahoma Ave
Cypress Ave
Reid Park
Riverside Golf Club
Kansas St
Baker Rd
Creole Rd
Citrus St
Oxford St
Palmyra Ave
Center St
Villa St
Tarrant Ave
Hyland Ave
Glen St
Pacific Ave
Iowa Ave
Orange St
Vista St
Placentia Ln
Island Dr
Garner Rd
Alamo St
Lemon Ave
Ivy Ave
Arthur Ave
Hole St
Nash St
Columbia Ave
Marylinda Dr
American Dr
Weyl St
Salmon Way
Zobay Way
Salmon River Rd
Brown Ave
Hully St
Main St

Study Area Overview



N
W E
S

Legend

- Sample Exceeds Hexavalent Chromium (Cr(VI)) Industrial Screening Levels (Discrete Sampling on March 21,2018)
- Sample Below Hexavalent Chromium (Cr(VI)) Industrial Screening Levels (Discrete Sampling on March 21,2018)
- Approximate Groundwater Well Location (MW-4)
- Approximate Boring Locations (LB-12, ALB-12 and ELB-1)
- Approximate Trench Locations (LT-47)
- Approximate Trench Location, 2017 (TP-6)
- Area of Interest #11 - Former / Existing Transformers
- Area of Interest #1 - Areas with Soil Containing CKD
- Area of Interest #2 - Locations of Former USTs
- Area of Interest #3 - White Kiln Pipeline and Diesel Pump
- Area of Interest #4 - Former Boiler Blowdown Pond
- Area of Interest #5 - Former Spray Pond
- Area of Interest #6 - Former Sag Pond
- Area of Interest #7 - Hazardous Waste Storage Area
- Area of Interest #8 - Sewer Alignments
- Area of Interest #9 - Settling Area
- Area of Interest #10 - Major Fill Piles or Berms
- Area of Interest #12 - Storm Water Retention Basin
- Approximate Location of Key Site Features
- Concrete or Asphalt Paving (as of 1964)
- Oil Emulsion Pavement (as of 1964)
- Suggested New Paving (as of 1964)
- Approximate Limits of Development
- Approximate Limits of Former Riverside Cement Manufacturing Plant
- Proposed Building Footprint

Study Areas

- Grey Cement Plant
- Maintenance, Adminstration, and Packaging
- Material Storage Area
- Surface Mining and Crushing
- Vacant Land
- White Cement Plant

Notes:

1. Background referenced from plan titled "Encumbrance Map, Vacant Commercial Property, Jurupa Valley, California, Topographic Information by ORC Engineering, Inc., Dated 2 March 2016.

2. Approximate site limits referenced from plan titled "Crestmore Redvelopment, Jurupa Valley, CA - Preliminary Site Plan - Scheme A.01," Prepared by RGA Office of Architectural Design, Dated 11 May 2016.

3. Approximate limits of areas are referenced from "Crestmore Plant, Hazardous Material Business Plan (HMBP)" by Riverside TXI Cement, Dated 2009.

4. Limits of Cement Kiln Dust (CKD) Disposal Areas area referenced from "Draft Technical Memorandum No.1" by Sector, Dated 25 January 2001.

5. Transformer locations referenced from "Figure 2 - Site Map, for TXI Riverside Cement Crestmore Plant, 1500 Rubidoux Boulevard, Riverside, California 92509" by Stantec, Dated 26 July 2013.

6. Asphalt types digitized from "Crestmore Plan and Vicinity" provided by Riverside Cement Company, dated 1964.

7. Underground Storage Tank (UST)

8. Above Ground Storage Tank (AST)

9. Map grid shown in California State Plane Zone 6, NAD 83. U.S. Feet.

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

Project

AGUA MANSA COMMERCE PARK

JURUPA VALLEY

RIVERSIDE COUNTY CALIFORNIA

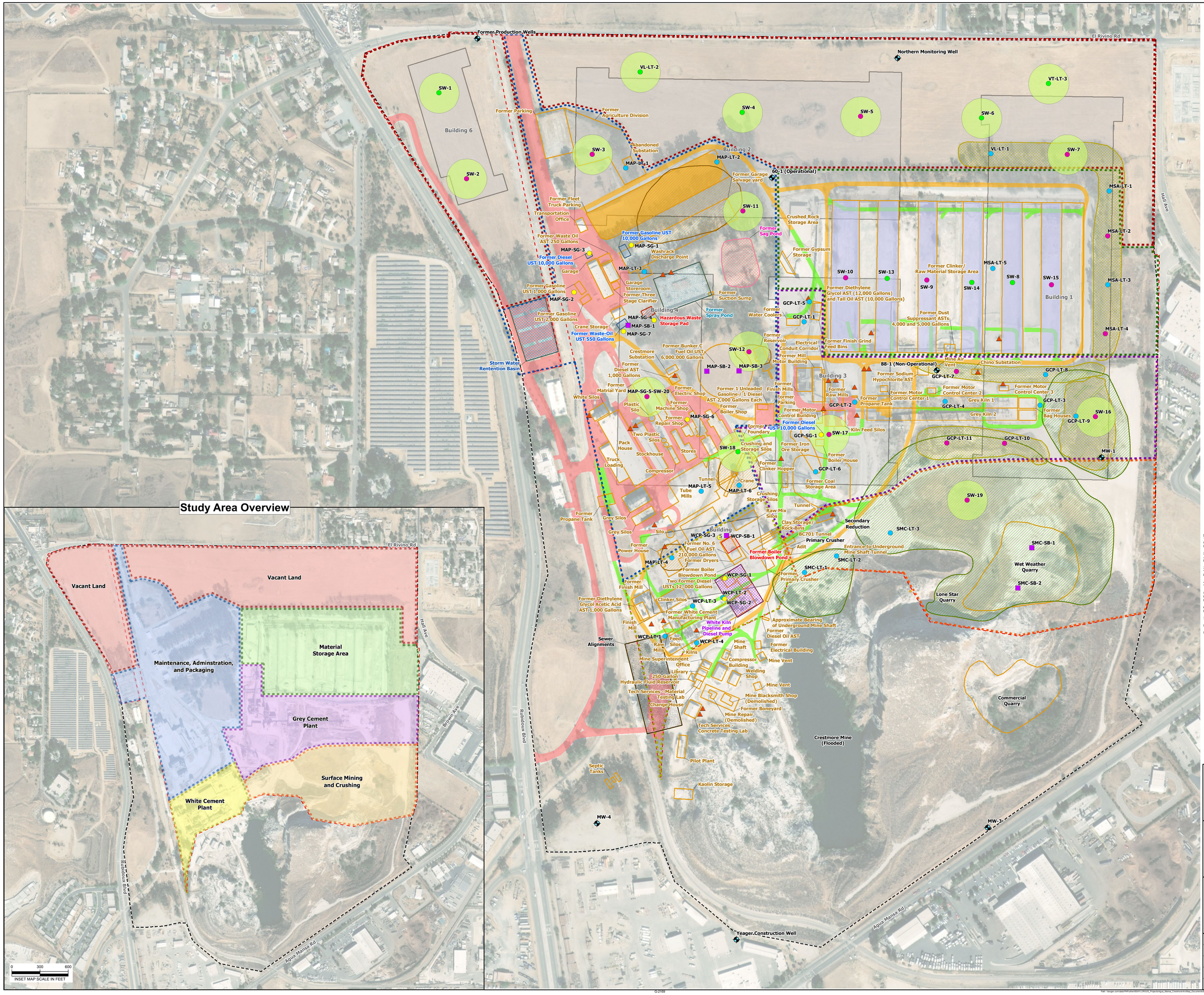
Drawing Title

SITE MAP WITH STUDY AREAS AND PREVIOUS INVESTIGATIONS

Project No. 721013501	Figure No. 2
Date 6/7/2018	
Scale 1"= 140'	
Drawn By OG	

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Path: \\langan.com\data\PAR\other\BSAYLOR05_Projects\Agua_Mansa_Crestmore\Arc\Map_Documents\Environmental_Figures\Figure 2 - Site Map with Study Areas and Previous Investigations 20180523.mxd


Former Production Wells
Northern Monitoring Well
El Rivino Rd
Hall Ave
Brown Ave
Rubidoux Blvd
Agua Mansa Rd
Building 6
Building 2
Building 4
Building 1
Building 3
Former Parking
Former Agriculture Division
Abandoned Substation
Former Garage Salvage yard
60-1 (Operational)
Former Fleet Truck Parking
Transportation Office
Former Waste Oil AST 250 Gallons
Former Gasoline UST 10,000 Gallons
Former Diesel UST 10,000 Gallons
Garage
Washrack Discharge Point
Former Sag Pond
Crushed Rock Storage Area
Former Gypsum Storage
Former Gasoline UST 1,000 Gallons
Garage Storeroom
Former Three Stage Clarifier
Former Gasoline UST 2,000 Gallons
Former Suction Sump
Former Spray Pond
Former Water Coolers
Hazardous Waste Storage Pad
Crane Storage
Former Waste-Oil UST 550 Gallons
Former Clinker / Raw Material Storage Area
Former Diethylene Glycol AST (12,000 Gallons) and Tall Oil AST (10,000 Gallons)
Former Dust Suppressant ASTs 4,000 and 5,000 Gallons
Former Reservoir
Electrical Conduit Corridor
Former Finish Grind Feed Bins
Former Bunker C Fuel Oil UST 6,000,000 Gallons
Former Mill Motor Building
Crestmore Substation
Former Diesel AST 1,000 Gallons
Storm Water Rentention Basin
Former Matrial Yard
White Silos
Former Electric Shop
Former Machine Shop
Former Repair Shop
Former Boiler Shop
Former 1 Unleaded Gasoline / 1 Diesel AST 2,000 Gallons Each
Former Finish Mills
Former Parking
Former Raw Mills
Former Propane Tank
Former Motor Control Building
Former Diesel UST 10,000 Gallons
Former Foundry
Former Motor Control Center 1
Former Motor Control Center 2
Former Motor Control Center 3
Grey Kiln 1
Grey Kiln 2
Former Bag Houses
Kiln Feed Silos
Former Iron Ore Storage
Former Boiler House
Former Clinker Hopper
Former Coal Storage Area
Former Tube Mills
Former Crushing and Storage Silos
Former Raw Mix Silos
Former Clay Storage / Rock Bins
Former Propane Tank
Former Grey Silos
Former Power House
Former No. 6 Fuel Oil AST 210,000 Gallons
Former Dryers
Former Boiler Blowdown Pond
Former Finish Mill
Former Two Former Diesel USTs 12, 000 Gallons
Former Clinker Silos
Former Diethylene Glycol Acetic Acid AST 1,000 Gallons
Former White Cement Manufacturing Plant
Former Finish Mill
Former Raw Mills
Former Feed Silos
Former Kilns
Former Mine Superintendent Office
Former Library
Former 250-Gallon Hydraulic Fluid Reservoir
Former Tech Services - Material Testing Lab
Former Change House
Former Boneyard
Former Mine Repair (Demolished)
Former Mine Blacksmith Shop (Demolished)
Former Tech Services - Concrete Testing Lab
Former Pilot Plant
Former Kaolin Storage
Former Septic Tanks
Former Compressor Building
Former Welding Shop
Former Mine Vent
Former Mine Shaft
Former Electrical Building
Former Diesel Oil AST
Former Primary Crusher
Former Secondary Reduction
Former Entrance to Underground Mine Shaft Tunnel
Former Boiler Blowdown Pond
Former Sewer Alignments
Former Tunnel
Former Crane
Former Compressor
Former Truck Loading
Former Pack House
Former Two Plastic Silos
Former Stockhouse
Former Stores
Former Plastic Silo
Former Crushing and Storage Silos
Former Tunnel
Former Coal Storage Area
Former Clinker Hopper
Former Iron Ore Storage
Former Boiler House
Former Raw Mix Silos
Former Clay Storage / Rock Bins

APPENDIX A

DTSC Response to Comments

DTSC Response to Comments for Preliminary Environmental Assessment

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
1	Risk Assessment	CY Jeng	8.3.1 Table 1	Some soil samples were composited for laboratory analysis but it's unclear for what analytes. In addition, comparison of composite results with screening levels directly for site characterization and risk evaluation purposes may not be appropriate, depending on the data quality objectives for the project (which should be defined in the future workplan/report).		Soil samples were composited and analyzed for metals, TPH, and other analytes based on visual observations and past operational history. Langan will define the data quality objectives in the SA Work Plan as well as the sampling approach (i.e., discrete).
2	Risk Assessment	CY Jeng	9.1	While HERO does not object to the use of the Environmental Screening Levels (ESLs) published by the SFRWQCB along with the other screening criteria in this case, HERO recommends the following hierarchy for future data evaluations: (1) DTSC-modified Screening Levels in the HERO HHRA Note 3; (2) USEPA Regional Screening Levels; and (3) ESLs.		We will use the following proposed hierarchy for future evaluation of the data, which includes DTSC-modified SLs and EPA RSLs.
3	Risk Assessment	CY Jeng	9.1.1	HERO recommends also comparing the site metal data with background soil levels (e.g., LT-4) to identify elevated concentrations that may warrant further assessment (e.g., chromium, nickel and vanadium at LT-21).		We will compare the data to both the screening levels and background levels. We will use the higher of the two screening levels as the criteria to determine appropriate actions for further delineation.
4	Risk Assessment	CY Jeng	10.1	HERO disagree with the statement "...there is a limited source of VOCs, rending the inhalation pathway incomplete." For example, the former USTs and ASTs storing gasoline and diesel as well as the hazardous waste storage area (AOI#7) could be sources for VOCs. However, the vapor intrusion pathway was not assessed during the previous investigation and closure activities, so it should be considered as a potentially complete exposure pathway and need to be properly evaluated in the upcoming Site assessment.		There were no indications of VOCs duirng field sampling activities in the past. The site will be going through a significant grading and soil relocation program. We can either perform a limited soil vapor survey prior to grading operation or conduct the survey post grading prior to construction. In addition, during grading operations any indication of elevated VOC area will be discovered. In addition, the site will be paved with either asphalt or concrete cover which will create an additional barrior to the potential receptors.
5	Risk Assessment	CY Jeng	10.1	For purposes of a risk evaluation, the land use of the site is assumed to be residential regardless of the current use and zoning of site, so residential receptor should also be evaluated in order to determine if land use restriction or other remedies may be warranted for site closure.		We are intending on having a land use covenant (LUC) for the site for industrial/commerical use only.
6	Risk Assessment	CY Jeng	10.2	Clarify if previous sampling results also used in the risk evaluation, and explain why if not. In general, historical data collected from locations that have not been disturbed over time should be considered in the PEA evaluation.		The previous samples were not used in the PEA evaluation; however, we will include that information in the upcoming SAWP and future data evaluations.
7	Risk Assessment	CY Jeng	10.2.1	The lateral and vertical extents of the impacted soil sampling locations (e.g., TPH-d at LT-9, nickel at LT-21, and lead at LT-40) should be fully defined, and the proposed controls and protective measures should be adequate for protection of all possible future receptors (see Comment 5).		During the SAWP development, a delineation program will be implemented to determine the lateral/vertical extent of impacts at LT-9 (TPH,As,Cr), LT-21 (Ni), and LT-40 (As, Pb).
8	Risk Assessment	CY Jeng	9.1.3	The USEPA RSL value listed (0.950 µg/kg) for Aroclor 1248 is incorrect and should be 950 µg/kg instead. The same errors are noted for the screening levels listed on Table 2j.		We will correct the error and resubmit the files.
9	Risk Assessment	CY Jeng	Table 1	Table 1 lists AO1 #12 and #13 samples, which are described under "Background Sampling/Additional Areas of Sampling" and AOI#12 respectively, in Section 8.3.1.		Understood.
10	Risk Assessment	CY Jeng	Table 3a, Table 3b	The MCL values appear to be in the unit of µg/L instead of mg/L as indicated on the tables. This discrepancy should be fixed to avoid confusion.		We will correct the error and resubmit the files.
11	GSU	Christopher Guerre	Soils	Before ground is broken for redevelopment of the site, soils should be characterized sufficiently to ensure they are properly managed during project activities. Additional characterization is requested beyond that presented in the PEA Report and a Site Assessment Workplan (SA Workplan) should be developed. Soil characterization should focus on a list of AOIs that may be associated with certain contaminants.		We will create a sampling plan to characterize the soil and chemical of concern based on operations and site history.

DTSC Response to Comments for Preliminary Environmental Assessment

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
12	GSU	Christopher Guerre		Additionally, Site soils that are going to be disturbed by redevelopment activities should also be characterized. It is envisioned that the SA Workplan would propose conventional pre-selected sampling locations. However, due the large scale of the project and operational complexity, it is suggested that the SA Workplan also include generic sampling plans for characterizing soils based on building footprint or processing area. Some characterization may need to be completed after demolition activities have progressed. For example, on other DTSC sites with significant demolition activities, soil sampling has occurred after cement foundation slabs are removed.		We will develop a SAWP, Demolition plan, and Response Plan to accommodate the suggested sampling approach by DTSC.
13	GSU	Christopher Guerre	Soils	A detailed cut and fill map (including depth of cut and fill) is requested for DTSC review to assist in developing sampling strategies for the site. It is envisioned that soil samples will be collected before cuts are implemented to assist in characterizing and categorizing soils in order to plan soil reuse, management options, and potential disposal.		We will provide a Cut/Fill map for review by DTSC.
14	GSU	Christopher Guerre	Soils	During the January 25, 2018 site visit, Langan representatives indicated that, in general, soils would not be imported to or exported from the Site during redevelopment. Additionally, Langan indicated that the Wet Weather Quarry (WWQ) depression would need to be filled with significant quantities of soils from the Site. To ensure that inappropriate materials are not placed in the WWQ (or other areas of the Site for that matter) criterion should be established for determining what type of soil should be reused and where.		Soil reuse criteria will be development and documented in the soil management plan.
15	GSU	Christopher Guerre		Placement of contaminated soils should not cause landfill permitting requirements to be invoked. Therefore, hazardous wastes levels and tests including leaching tests, should be identified and performed on suspect soils. SPLP tests may also need to be performed to assess leaching characteristics of nonhazardous soils. Class III landfill permitting requirements should also be avoided by taking all demolition waste and conventional trash off-site for appropriate disposal.		Agree. We will perform SPLP test where appropriate. We will perform SPLP tests in four areas (Grey Cement Plant, White Cement Plant, Wet Weather Quarry, and Material Storage Area) where the soil samples contain the highest CrVI concentrations.
16	GSU	Christopher Guerre		Criterion/Action Levels for utilizing soils containing contaminants should be established. The threat to human health and the environment should guide development of the criteria. Criteria such as risk based screening levels should be adopted as well as screening levels to protect the groundwater resource. As low levels of certain soluble contaminants, such as hexavalent chromium, can threaten groundwater, extra measures may need to be taken including engineering controls such as capping and liners to minimize infiltration.		We will establish action levels and use the screening methodology described in the HERO comment above.
17	GSU	Christopher Guerre		If significant quantities of impacted soils are placed in areas like the WWQ, then the GSU would require new groundwater monitoring well installation and establishment of a monitoring network to ensure groundwater impacts do not develop in the future. Ideally, the monitoring network should be installed prior to placement of any fill to establish baseline groundwater conditions. Materials/wastes planned for offsite disposal should also be identified.		Understood.

DTSC Response to Comments for Preliminary Environmental Assessment

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
18	GSU	Christopher Guerre	Records	During the January 25, 2018 site visit, GSU staff visited the Transportation Office where substantial quantities of old plant and mining records are now housed in numerous cabinets. A very quick search provided very valuable plates that confirmed previously identified AOIs as well as located new AOIs (See Attachments at the end of this memorandum). Time should be spent reviewing these records. People familiar with these records should be contacted if needed to expedite review and confirm file organization. Historic Sanborn maps should also be obtained if available. Building plot plans would be very helpful in identifying sumps, clarifiers, pits, etc., that might be of concern to DTSC. Ideally, plot plans for each building should be obtained from records and then DTSC could conduct a field visit, if necessary, to assess if any of the units would require soil characterization.		We will review available drawing information to identify other AOIs that may not previously been identified in the PEA. Previous Phase I ESAs that were conducted in 2016 for the northern and southern parels did not have Sanborn Maps available per EDR search.
19	GSU	Christopher Guerre		Appendix D contains information indicating that solvents were used at the "Shops" as late as 1992. "Safety Solvent" (1,1,1 tricholorethane) and other solvents are mentioned being stored in quantities up to 150 gallons. This further supports conducting soil gas surveys at select areas on the site. Soils gas surveys should be performed at all Site areas that could have used or contained volatile organic compounds (VOCs). This includes, but may not be limited to, the following AOIs: All above ground storage tanks (ASTs) and underground storage tanks (USTs) with lighter end hydrocarbons (e.g., gasoline and diesel, waste oils); the six-million-gallon tank; AOI#3 — White Kiln Pipeline Release; AOI#5 through AOI#8; former Boiler Shop, Machine Shop, Repair Shop, Electric Shop; Stores; former Material Yard; Garage; Sag Pond; Spray Pond; and Reservoir.		Agreed. A selective soil gas survey will be conducted to address areas discussed with DTSC. The specifics are presented in the SA Work Plan.
20	GSU	Christopher Guerre	CKD Areas	There is concern that waste kiln brick/refractory brick/"basic brick" may be associated with this material. See Specific Comment J below. Cr+6 analytical data are missing for this material and represent a major data gap for the Site since the material is suspected of containing Cr+6. Cr+6 data must be collected from this material (as well as other soils/materials).		We will address this data gap in our SA Work Plan
21	GSU	Christopher Guerre		Deep borings of the spoils within the WWQ should be planned to ascertain the thickness of fill/waste within the area, assess the nature of any contamination planned to be left in place, as well as to confirm the depth to groundwater in the area.		The SA Work Plan will propose a couple of borings in the WWQ to address the comment.
22	GSU	Christopher Guerre		Hazardous waste leach tests for chromium and Cr+6 should be conducted on CKD material with elevated chromium/hexavalent concentrations. To protect the groundwater resource, USEPA Method 1312 Synthetic Precipitation Leaching Procedure (SPLP) may also need to be performed to assess leaching characteristics.		Understood.
23	GSU	Christopher Guerre		Atypical soils (e.g., black/brown sand in LT-31) should be sampled and analyzed in addition to CKD.		We will address this data gap in our SA Work Plan

DTSC Response to Comments for Preliminary Environmental Assessment

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
24	GSU	Christopher Guerre	Spray Pond	Cr+6 analytical data were not conducted for this AOI. The GSU requests that samples be collected from four borings drilled through the floor of the unit to assess potential leakage.		As discussed during the site visit on February 2, 2018, the Spray Pond foundation/slab is likely to be serveral feet thick and may pose a challenge to core and drill through it. Sampling will be conducted after the slab is removed during the decon/demolition phase.
25	GSU	Christopher Guerre	Sag Pond	Cr+6 analytical data were not conducted for this AOI. The GSU requests that samples be collected from two trenches located within the boundaries of the unit as defined by aerial photographs from 1953 and 1966 (see Specific Comment F). North-central and south-central locations are requested.		Will be addressed during the decon/demolition phase of the project.
26	GSU	Christopher Guerre	Settling Areas	Cr+6 analytical data were not conducted for this AOI. Samples were not collected from most of the Settlement Areas pictured on Figure 2 of the PEA Report which were based on Regional Water Quality Control Board (RWQCB) input from 2000 (see last page of Appendix C). Therefore, additional sampling is requested. The two settlement areas pictured to the southwest on Figure 2 are well located as they are also located near a major drainage canal.		We will address this data gap in our SA Work Plan
27	GSU	Christopher Guerre		The large settlement area pictured to the northwest should be sampled again, this time locating the area delineated as the "Fleet Truck Parking" on facility drawings (see Attachments at the end of this memorandum). Fluids would periodically collect at the east end of this area based on historic aerial photographs. The March 2011 Google Earth Pro photograph documents fluids at all of these locations. The settlement area adjacent to the six-million-gallon fuel tank should be investigated as part of the Reservoir.		We will address this data gap in our SA Work Plan
28	GSU	Christopher Guerre	Major Fill Piles or Berms	Cr+6 analytical data were not conducted for this AOI. It is suggested that composite sampling be utilized for this type of unit as well as characterization of the vacant lots. Each berm could be treated as a decision unit. However, distinct types of materials should be excluded where feasible (e.g., one subunit with pods of CKD and another with no or trace CKD). Distinctly different material from different subunits should not be mixed. For example, the composite sample from trench LT-SBermA mixed the three different units identified in the trench log: whitish hard pan, dark grey soil with trace coal, and tan soil. Additionally, the dark grey soil with trace coal should have been analyzed for organic constituents such as polycyclic aromatic hydrocarbons (PAHs) and semi-volatile organic compounds (SVOCs).		We will address this data gap in our SA Work Plan
29	GSU	Christopher Guerre	Former or Existing Transformers	Sampling may be requested after DTSC conducts a field visit to observe the units/areas (see Specific Comment C).		As discussed during the site visit on February 2, 2018, the transformer locations will be evaluated after the facility has been deenergized and staining of the transformer pad. This will likely be part of the demolition plan.
30	GSU	Christopher Guerre		The raw materials storage area (RMSA) should be added to the list of AOIs and sampling of the unit should be described in the SA Workplan. This unit is reported by the SCAQMD as a source of hexavalent chromium.		We will address this data gap in our SA Work Plan

DTSC Response to Comments for Preliminary Environmental Assessment

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
31	GSU	Christopher Guerre		Additionally, contaminated soils were stored in the unit bays. The area where liquid was contained in one bay as pictured in the 2009 aerial photograph may require additional focused sampling. Composite sampling within individual bays should be considered for this large unit.		We will address this data gap in our SA Work Plan
32	GSU	Christopher Guerre		At least two deep borings to approximately 50 feet bgs are requested to assess any residual contamination associated with the six-million-gallon tank. The borings should be located in the southern quadrant of the former tank near former borings VB1 and VB4 (June 26, 1987 ERM-West report contained in Appendix D) that had detected the highest contaminant concentrations. Due to the Bunker C fuel type, analyses for VOCs, SVOCs, and PAHs should be conducted. Deep soil vapor data are also requested due to past VOC detects at this unit.		We will reivew historical information and if additional sampling is necessary we will incorporate into the SA Work Plan
33	GSU	Christopher Guerre		Waste oil USTs should also be sampled for VOCs, SVOCs, and PAHs.		We will address this data gap in our SA Work Plan
34	GSU	Christopher Guerre		New AOIs identified by the GSU that should be investigated include the following: former Power House (including former Precipitators, Tube Mills and Dryers); former Reservoir; former Shops including the Foundry, Machine Shop, Repair Shop, and Electric Shop; Agriculture Division area; former Boiler House (Grey Kiln area); former Water Coolers/cooling towers; Coal/coke Storage; Abandoned substation; Chino Substation and/or "main electrical substation" (Grey Kiln area); and Oil Emulsion Pavement.		We will address this in our SA Work Plan
35	GSU	Christopher Guerre		The SA Workplan should include analyses for a larger suite of organic compounds than presented in the PEA Report. This would include some dioxin analyses due to the long history of kiln usage at the site. At a minimum, the following AOIs should include dioxin analyses: kiln areas, CKD disposal areas, the RMSA, and the vacant lots.		We will address this in our SA Work Plan
36	GSU	Christopher Guerre		It appears that XRF units could be utilized as a screening tool on this Site. Potential applications should be identified.		This will be integrated into the soil management and demolition plan
37	GSU	Christopher Guerre		All groundwater wells on the site should be identified. Those that are not planned for future use should be identified for proper well decommissioning.		Understood.
38	GSU	Christopher Guerre		Well decommissioning work plans should be submitted to DTSC for review and approval.		Understood.
39	GSU	Christopher Guerre		In general, it is recommended that well decommissioning occur prior to site redevelopment.		Understood.
40	GSU	Christopher Guerre		A figure depicting the layout and complexity of the Crestmore Mine underground workings should be provided to DTSC to ascertain how the workings might affect groundwater flow both laterally and vertically. Additionally, Page 9 of the PEA Report states "Wells screened in the Chino limestone may have different groundwater gradients, with the groundwater flow direction in the limestone influenced by the complex local geology and the historical subsurface mining activities." Clarification of the complex groundwater flow is requested.		The SA Work Plan primary objective is to focus on soil conditions as it relates to property redevelopment. At this time, groundwater is not part of this supplemental investigation. It is understood that groundwater may be evaluated in the future. However, additional discussions with DTSC would be warranted prior to initiating any groundwater investigation, if deemed necessary.

DTSC Response to Comments for Preliminary Environmental Assessment

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
41	GSU	Christopher Guerre	4.3	The GSU identified additional information when reviewing the aerial photographs and plant drawing terminology and requests the information reported below be incorporated into the section and that most of the units described be identified on site maps (e.g., Figure 2 of the PEA Report). 1938: White Kiln process does not appear to be present. Power House, Precipitators Building and Tube Mill building appear to be present. Rectangular Spray Pond and Reservoir are present. Dark material surrounds the cantilever crane. Two above ground oil tanks occur west of Rubidoux Blvd. Numerous trees planted on vacant Lot 5/6 to the northwest.		We review the aerial photographs and plant drawings to capture the features outlined in the comment.
42	GSU	Christopher Guerre		1948: Sag Pond Area appears to be present. Grey material is being stockpiled in the center of a white area northeast of the six-million-gallon tank. Southern drainage from east well pictured as well as the southwestern drainage.		No response needed.
43	GSU	Christopher Guerre		1953: Sag Pond more defined including a linear element that occurs at an angle across the pond (faint in 1948). This liner feature is shown on plant drawings crossing the Sag Pond. Large pipeline(?) from Spray Pond sweeps southeast adjacent to the Reservoir and just south of the six-million-gallon tank (portions of this line are present in 1948 photo, but less pronounced). Cement plant dust appears to be blowing to the south. Stockpile in the center of a white area northeast of the six-million-gallon tank is well pronounced. More residences are present on the northeast corner of Lot 1.		No response needed.
44	GSU	Christopher Guerre		1966: Three water coolers from plant drawings can be seen in the southwest portion of the raw materials storage area (RMSA). Two smaller buildings (associated with transformers?) are noted in the RMSA bays. The Boiler House can be seen southwest of the Grey Kilns. The Sag Pond is full of liquid and the liner feature crossing the pond is still present indicating that it is an elevated feature. Low spot/settlement area on east end of parking area (can be seen better in 1953 photo) north of ponds. Electrical Substation now present west of six-million-gallon tank. The Agricultural Division area has formed to the north. White Kilns now present. Drainage ditch west of Power House and Tube Mills well defined.		No response needed.
45	GSU	Christopher Guerre		1968: North side of Spray Pond wet. Sag Pond appears dry. Hard to see Reservoir. Chino Substation may be visible south of RMSA. Power House, Precipitators Building and Tube Mill building area have been demolished.		No response needed.
46	GSU	Christopher Guerre		1974: Spray Pond used for storage. Sag Pond looks wet and smaller. Reservoir seems to have fluids. Building present on southeast corner of RMSA.		No response needed.
47	GSU	Christopher Guerre		1985: Black coke/coal operations can be seen southwest of the Grey Kilns. Building on the southeast corner of the RMSA in 1974 is now gone. Water coolers are still present. Spray Pond is dry and has road entrance. Sag pond area dry and has configuration closer to current conditions. Reservoir seems to have fluids and looks like a pond. Oil Tanks west of Rubidoux Blvd. have been removed. 210,000-gallon Fuel Oil AST and Boiler Blowdown Pond visible in White Kiln area.		No response needed.
48	GSU	Christopher Guerre		1990: Six-million-gallon tank and adjacent Reservoir are not visible.		No response needed.

DTSC Response to Comments for Preliminary Environmental Assessment

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
49	GSU	Christopher Guerre		1995: Boiler House southwest of Grey Kiln area not visible.		No response needed.
50	GSU	Christopher Guerre		2005: Three water coolers west of RMSA are not visible.		No response needed.
51	GSU	Christopher Guerre		2009: One bay in RMSA contains green liquid.		No response needed.
52	GSU	Christopher Guerre	1/25/2018 observations	Oil leakage from motors was noted along the north side of feed silos for the white kiln. A process to document releases such as these should be developed. The actual process/operation should be identified and a plan to remove and segregate obviously contaminated media should be proposed. Waste characterization and soil sampling should be included in the SA Workplan.		A process will be included in the waste management plan, demolition plan, and soil management plan.
53	GSU	Christopher Guerre		Similarly, oil leakage was noted at a transformer in the Raw Mills area where sample LT-XF-5 did not detect polychlorinated biphenyls (PCBs). A trench or boring log for LT-XF-5 could not be located in the PEA Report. Table 1 of the PEA Report indicates that no staining was observed at any of the transformer locations. Table 1 also indicates that two to three inches of asphalt or concrete covered most sample locations. Soil sampling should target discolored, potentially contaminated soils.		As discussed during the site visit on February 2, 2018, the transformer locations will be evaluated after the facility has been deenergized and staining of the transformer pad. This will likely be part of the demolition plan.
54	GSU	Christopher Guerre		The GSU also noted that some other transformer cases had been moved from original locations. The GSU would like to view all site transformers as well as electrical substations (including abandoned and active substations).		During the February 2, 2018 site visit, GSU and DTSC PM were escorted to the various locations on site including abandoned and inactive substations.
55	GSU	Christopher Guerre	5.1	The section states "Manholes were observed within the former white cement manufacturing plant and are associated with storm drains that traverse the area." Page 18 states, "Manholes to storm drains are present throughout the property." The storm drain system for the entire site should be discussed and a figure should be prepared illustrating the system including inlets, discharge to canals/ditches or hook up to other drain systems.		We will make an attempt to identify the storm drains throughout the facility.
56	GSU	Christopher Guerre	5.2	Two above ground oil tanks that formerly occurred west of Rubidoux Boulevard were labeled as fuel oil apparently for the cement quarry (See Attachments at the end of this memorandum and the 1938 through 1974 aerial photographs within the PEA Report). Were those tanks properly closed including the piping to the Site?		These two tanks are not part of this project. This was discussed during the February 2, 2018 site visit with DTSC.
57	GSU	Christopher Guerre	6.5	The section suggests that the Sag Pond was not used for RCC operations. Aerial photographs and plant drawing identify it as a unit associated with the Site. The 1966 aerial photograph shows the Sag Pond operating and full of liquids. The 1953 and 1966 aerial photographs should be used to update the boundary of the Sag Pond on Figure 2. Plant drawings appear to show the Sag Pond connected to the Spray Pond. Efforts should be made to understand the actual operation and purpose to the Sag Pond.		We will be clarify this in the SA Work Plan

DTSC Response to Comments for Preliminary Environmental Assessment

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
58	GSU	Christopher Guerre	6.5	Other study areas are listed at the end of the section in a table. The table or equivalent should be updated to include the following: former Reservoir; former Power House (including former Precipitators, Tube Mills and Dryers); former Shops including the Foundry, Machine Shop, Repair Shop, and Electric Shop; former Water Coolers; Agriculture Division area; Abandoned substation; main electrical substation (Grey Kiln area); Chino Substation; Coal/coke Storage; former Boiler House (Grey Kiln area) and Oil Emulsion Pavement. Activities, process and operations associated with these units should be described in sufficient detail to assess potential contaminants associated with them. Additional areas may be identified after records are reviewed further.		This will be added to the SA Work Plan figures.
59	GSU	Christopher Guerre	6.6	The section should note that many residences (approximately 15 lots) were located to the northeast on Lot 1 (see 1953 aerial photograph). Grading activities will likely encounter residential infrastructures in this area.		We will be clarify this in the SA Work Plan
60	GSU	Christopher Guerre	7	A subsection should be dedicated to discussing SCAQMD oversight history including the history and reason for monitoring air for hexavalent chromium.		We will be clarify this in the SA Work Plan
61	GSU	Christopher Guerre	7.1	The section should discuss disposal of cement kiln brick with reported hexavalent chromium concentrations of 10 percent by weight. Approximately 48 cubic yards of the brick were disposed at the Site from 1955 until 1979. The physical description of this brick should be documented so that it can be easily identified at the Site and properly managed.		Typical klin brick was observed during the site visit and will be looked for during the SAWP and the decon/demolition and soil grading phase.
62	GSU	Christopher Guerre		The section should also mention the old CKD analytical results from 1979 (from Table 3-1, Ecology and Environment, Inc., 1990 contained in Appendix B of the PEA Report) which yielded maximum concentrations of lead (4,600 ppm), arsenic (21 ppm), and cadmium (150 ppm). Chromium was only reported at a maximum concentration of 41 ppm. When compared to other CKD data, these data suggest that the CKD composition could have changed over time.		Understood.
63	GSU	Christopher Guerre	9.1	According to Table 1 only one sample of CKD out of the eight AOI#1 areas containing CKD was sampled. The lone CKD sample yielded high chromium of 2,000 mg/kg which is near the hazardous waste level for chromium (2,500 mg/kg). The Cr+6 hazardous waste level is 500 mg/kg. CKD must be well characterized for metals, especially Cr+6.		Understood.
64	GSU	Christopher Guerre	9.2	The GSU did not conduct a rigorous assessment of the groundwater and hydrogeology sections presented in the PEA Report as the GSU's review focused on identification of AOIs for soils investigation. As the project progresses and additional soils data are collected, a better understanding of the site conceptual model should develop and groundwater concerns should be better defined.		The SA Work Plan primary objective is to focus on soil conditions as it relates to property redevelopment. At this time, groundwater is not part of this supplemental investigation. It is understood that groundwater may be evaluated in the future. However, additional discussions with DTSC would be warranted prior to initiating any groundwater investigation, if deemed necessary.
65	GSU	Christopher Guerre		In the interim, it is requested that historic groundwater and surface water data be summarized in one document to minimize the amount of time spent locating and reviewing that data. Immediate questions include if well MW-1 is still functional and if a well MW-2 ever existed.		We will provide a groundwater and surface water sampling report. MW-2 was never installed.

DTSC Response to Comments for Preliminary Environmental Assessment

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
66	GSU	Christopher Guerre	Table 1	Some of the field observation descriptions or sampling depths in Table 1 do not correlate with the trench logs (e.g., see logs LT-EBermC, LT-EBermD, LT-9, LT-32). Additionally, Table 1 indicates LT-32 was not sampled, yet data are presented on Figure 4A presents data for LT-32. The table, logs and/or figures should be revised.		Understood.
67	GSU	Christopher Guerre	Appendix D, 1992 ERBP	The Hazardous Materials Inventory Report contained in the plan indicates that radioactive Cesium 137 isotope was used in nuclear scales and instruments. Discussion regarding the management and fate of the Cesium 137 should be documented.		Cesium is only found in the instrumentation and nuclear scales. There is no Cesium in the soil.
68	GSU	Christopher Guerre		Where were chemicals stored prior to the creation of the hazardous waste storage area?		There have been additional discussions with the on-Site manager (Pat Crites). He has indicated that he is not aware of other hazardous waste storage locations other than the current location.
69	GSU	Christopher Guerre		How was boiler blowdown managed prior to 1985? RWQCB documents indicate that 5,000 gallons per month of highly mineralized boiler blowdown and water softener regeneration wastes was discharged to an "impervious facility". Where was the "impervious facility" located.		During the site visit on February 2, 2018, we showed the location of the "boiler blowdown" and "impervious facility."
70	GSU	Christopher Guerre		The history of mine and plant waste water discharges should be summarized. RWQCB documents mention 1.75 million gallons per day of industrial wastes pumped from the mine to the West Riverside Canal and 5,000 gallons per day of sanitary wastes to a septic system that was later replaced by a treatment system.		Understood.
71	GSU	Christopher Guerre		Did an explosive storage area exist for the mine at some point in the past? These units are often located in remote areas away from operations.		We are not aware of a storage location for explosives within the subject property.
72	GSU	Christopher Guerre		Were any wastes, materials, or machinery left in the underground workings that flooded?		We are not aware of waste, materials, equipment, etc. left in the underground workings that flooded.
73	GSU	Christopher Guerre		Mine dewatering efforts and discharge points should be discussed.		Documentation regarding dewatering is not readily available. The need for this information will be further discussed with DTSC, if necessary.
74	GSU	Christopher Guerre		The function and purpose of the "overflow standpipe" pictured on facility drawings between the "Caved Area" and WWQ should be discussed.		Documentation regarding the "overflow standpipe" is not readily available. The need for this information will be further discussed with DTSC, if necessary.
75	GSU	Christopher Guerre		Could soils on the omitted lots to the south (e.g., Open Space 72.29 acres) also be candidates for borrow areas to fill up the WWQ if needed. Is there a plan to fill the Commercial Quarry area?		Soils located in the Open Space to the south will not be used as soil borrow areas. The Commercial Quarry area will not be filled and will remain in its current condition.

DTSC Response to Comments for Site Assessment Work Plan

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
1	DTSC Brownfields Restoration and School Evaluation Branch	Scarlett Xihong Zhai		DTSC provided comments to the PEA Report in a letter forwarded on February 28, 2019. A responses-to-comments table should be included as an appendix in the SAWP		A responses-to comments table is included as Appendix E of the SAWP.
2	DTSC Brownfields Restoration and School Evaluation Branch	Scarlett Xihong Zhai		The SAWP should include a section of contingent sampling activities, to indicate that more samples might be collected based on field observation during sampling and demolition.		This has been addressed in Section 8.1 of the SAWP.
3	DTSC Brownfields Restoration and School Evaluation Branch	Scarlett Xihong Zhai	Table 8, Page 1	The last row of the table states that DTSC conducted site screening assessment on the CKD containing soil in 2009, which appears to be an error. DTSC believes the oversight agency should be South Coast Air Quality Management District. Please verify and correct accordingly		Table 8 has been corrected accordingly.
4	DTSC Brownfields Restoration and School Evaluation Branch	Scarlett Xihong Zhai		During the meeting on June 21, 2018, Langan proposed soil samples for metal and PCBs analysis for the Southern California Edison substation. DTSC recommends TPH analysis of the soil samples, to evaluate any potential impact from the nearby former Bunker C oil UST. The sample locations and depth should be reflected on Figure 3, and incorporated in the SAWP.		We recommend a meeting between DTSC, SCE, and Langan to develop a focused sampling program at the Crestmore Substation. Currently we propose four borings to 20 feet with analysis for TPH, PCBs and metals. The implementation of this sampling will be conducted once access and coordation is completed with SCE.
5	DTSC Human and Ecological Risk Office	CY Jeng	Page 4, Section 1.1	HERO recommends expanding DQO-I to "....of COPCs in former known or suspected source areas to support a health risk evaluation and the Response Plan" for completeness.		This extension to DQO-1 has been added to Section 1.1 of the SAWP.
6	DTSC Human and Ecological Risk Office	CY Jeng	Page 4, Section 1.1	For clarity, HERO recommends including a statement to indicate that additional areas will be addressed in the decontamination/demolition and the soil management plan as discussed in Section 8.0.		This statement has been added to Section 8.1 of the SAWP.
7	DTSC Human and Ecological Risk Office	CY Jeng	Page 21, Section 5.0	Please clarify on the EPA “Ongoing" status on Table 7 and describe EPA’s roles in the proposed redevelopment process, if any.		Updated in Section 5.0 - Table 7 of the SAWP.
8	DTSC Human and Ecological Risk Office	CY Jeng	Page 28 and Table 18	HERO recommends listing other metal data (e.g., those collected during the PEA) on the table for completeness, and discussing potential significance of the metal concentrations exceeding the screening levels and whether further investigation is warranted (see Comment 10).		Metals data collected during the PEA are included in the PEA as Table 1. Table 18 is intended to only summarize the data results of a soil sampling event on 3/21/18.
9	DTSC Human and Ecological Risk Office	CY Jeng	Page 29, Section 8.0	For clarity, HERO suggests changing the total number of soil borings to 8 (eight) as both soil and soil-gas borings will be installed at MAP-SG4 and MAP-SG5 according to Table 25.		SB/SG co-located borings are listed as one boring on Table 27 and on Figure 3 of the SAWP.
10	DTSC Human and Ecological Risk Office	CY Jeng	Page 29, Section 8.0	HERO’s Comment #7 on the PEA Report recommended that the lateral and vertical extents of elevated soil concentrations detected at the previous soil sampling locations (e.g., LT-9, LT-21, and LT-40) be adequately defined. Please explain why additional sampling is not proposed around these locations.		Areas LT-9 and LT-21 will be addressed during the sampling associated with the decon/demo plan, as described in Section 8.1. LT-41 will be delineated with field adjustments of the SW-18 location (see Figure 3).
11	DTSC Human and Ecological Risk Office	CY Jeng	Page 37, Section 9.0 and Table 25	Explain why the analysis of Cr(VI) is limited to the soil samples at the top two depths (1 foot [ft] & 5 ft bgs) while the analyses of other chemicals are proposed for soil samples at the top three depths. In addition, clarify whether deeper soil samples (e.g., 15’ and 20’) will be collected and put on hold pending analytical results of the shallower soil samples at the same location.		The analysis of CrVI will include sampling at three depths (1 ft, 5ft, and 10 ft bgs). This has been added to Table 27 of the SAWP.
12	DTSC Human and Ecological Risk Office	CY Jeng	Page 37, Section 9.0 and Table 25	Besides metals, at least 50% of the soil samples in each cut area proposed for DQO-2 should be analyzed for TPH ranges (gasoline, diesel, heavy oil) and PCBs to properly evaluate soil for possible reuse as onsite		This has been updated in Section 8.0, Table 27, and Figure 4.

DTSC Response to Comments for Site Assessment Work Plan

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
13	DTSC Human and Ecological Risk Office	CY Jeng	Page 37, Section 9.0 and Table 25	Collect soil gas samples at all locations where the soil borings are proposed for VOC analysis (e.g., WCP-SB1) to evaluate potential vapor intrusion. All soil gas samples should also be analyzed for TPH-gasoline to evaluate non-carcinogenic effects of volatile petroleum hydrocarbons that are not reported by the TO 15 analysis		Proposed soil gas sampling locations are currently within the general operational area which will give us a preliminary indication of VOCs in soil gas. Should additional SG sampling be needed, we will evaluate and perform after the preliminary soil gas sampling. Soil gas analyses will be performed using the 8260B method to account for TPH-gasoline constituents.
14	DTSC Human and Ecological Risk Office	CY Jeng		HERO recommends including a figure showing the cut/fill areas that are planned for possible soil use, and the proposed sampling locations/depths for DQO-2 to illustrate spatial coverage (lateral and vertical) of the proposed samples over the cut areas.		A cut/fill map with proposed sampling locations for DQO-2 will be provided in Figure 4.
15	GSU	Christopher Guerre	Section 8	Tables within Section 8 include the statement, “Addressed in decon/demo and Soil Management Plan (SMP)." for many of the listed buildings and structures. The decon/demo and SMP should be developed as soon as possible to ensure those plans are appropriate and supplement the SAWP appropriately. If certain units are not addressed and sampled in the decon plan, then they would have to be sampled in the SAWP. The developed demolition plan should clearly describe the process for ensuring how structures will be investigated, tracked, and sampled. For example, how will the numerous transformers across the site be evaluated during demo/decon/SMP? How will new contaminant discoveries be handled? Additionally, after an area is demolished, how will the location of small units such as transformers be accurately recorded to enable future sampling/actions? The SAWP and demolition plan should include a succinct list/table for areas that are already scheduled to be sampled during demolition. Other areas/buildings (e.g., Truck Loading, Pack House) to be screened for sampling, but may not be sampled should also be listed as practicable. All buildings/areas would require DTSC oversight to clear it from further investigation, preferably just after slab/pad remo /at and while grading an area for the first time as well as observing the last cut prior to filling.		Section 8.1 identifies and addresses the areas to be sampled during decon/demo and rough grading activities. A specific decon/demo and SMP is being developed and will be submitted prior to decon/demo and soil grading activities.
16	GSU	Christopher Guerre		As recently discussed with Langan representatives, a cut and fill map should be included in the SAWP to allow visualization of the larger volumes of soil that are planned to be moved. Additional sampling points may be needed based on this figure, especially if particular operations or material occupy areas where large volumes of soil will be cut.		A cut and fill map will be provided with the SAWP in Figure 4.
17	GSU	Christopher Guerre		The SAWP does not describe sampling protocol. A Sampling and Analysis Plan (SAP) should be developed to describe, in detail, all the different sampling techniques that will be used while collecting trench, soil boring, and soil vapor samples (See also Comments 54 and 58). Additionally, quality assurance project plan control (QAPP) elements such as quality control measures (e.g., blanks, spikes, duplicates) and data validation should be discussed in the SAWP		A SAP and QAPP has been developed.
18	GSU	Christopher Guerre		A. It is suggested that a larger suite of analytes be included to assess site wide conditions across the six study areas. Total petroleum hydrocarbons (TPH), semi-Volatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs), and polychlorinated-biphenyls (PCBs) should, at a minimum, be included at all investigation areas and included as analytes for some of the new samples proposed in Table 25. Hexavalent chromium (Cr6’) analyses should be conducted at all standard depths in known operational areas. Finally, all samples should be analyzed for pH as it could be an indicator of extent of impact from cement operations.		We believe that the site specific COPCs include TPH, metals, PCBs, and CrVI. In certain locations, where historical operations indicated the usage of VOCs, SVOCs, and PAHs, we have proposed to analyze for those constituents. We will conduct field pH measurements on the samples collected.

DTSC Response to Comments for Site Assessment Work Plan

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
19	GSU	Christopher Guerre		Additional soil gas sampling locations are requested. Please review General Comment 5 of the GSU' s February 23, 2018 memorandum which requested that many locations be assessed by soil gas. If desired, Langan can try to prioritize above ground storage tanks (ASTs) and underground storage tanks (USTs) requiring soil vapor assessment based on release history and past data. All waste oil USTs need to be assessed with soil gas. Add a sample location between the Boiler Shop and Foundry for better coverage of the shops area.		Four additional soil gas points have been added (Figure 3).
20	GSU	Christopher Guerre		A section within the SAWP should discuss site specific background data collection and analysis. Table 24 of the SAWP mentions background analysis for locations VL-LT-2 and VL-LT- 3, but nothing more. The GSU believes that data collected from certain vacant lot samples associated with the hexavalent chromium assessment could also be used for site specific background assessment (see Comment 48).		Discussion regarding prior sampling and background concentrations is provided in Section 7.0 of the SAWP.
21	GSU	Christopher Guerre		A Data Quality Objective (DQO) to assess if detected soil contamination can impact groundwater resources should be established in the SAWP as discussed in the GSU memorandum dated February 23, 2018. Site specific background levels and U.S. EPA Soil Screening Levels should first be used to evaluate site data. If those screening levels are exceeded, then leaching models would be utilized to further assess the potential to impact groundwater and develop protective values if necessary. The SAWP should also have contingencies to run synthetic precipitation leaching tests (see the GSU memorandum dated February 23, 2018) to evaluate transport effects due to the cementitious nature of some of the site soils or materials (e.g., cement kiln dust).		Added DQO-4 to the Objectives in Section 1.1 of the SAWP. SPLP tests will be run in specific study areas at sampling points with the highest concentration of CrVI.
22	GSU	Christopher Guerre	Objectives, Page 4	DQOs are presented in this section. It is recommended that additional detail be added to the DQOs such as what screening levels the data will be compared to attain the objective. Also ensure that analytical detection limits are appropriate for the different screening levels that exist.		The proposed site development is commercial/industrial warehouses; therefore the screening levels for the DQOs will be commerical/industrial ESLs. SSLs will be used for DQO 4. The proposed analytical detection limits are presented in the QAPP.
23	GSU	Christopher Guerre	3.2 Hydrogeology, Pages 10 and 11	This groundwater section was not rigorously assessed, but could certainly benefit from figures/cross-sections illustrating geologic and hydrogeologic units, even if only conceptual at this time. Additional work will be needed should soils data point towards potential groundwater impacts. Existing water wells on and near the site may or may not be appropriately located to detect a release from the property.		We recognize there is a potential need to do additional evaluation of potential groundwater impacts.
24	GSU	Christopher Guerre	4.0 STUDY AREAS, Table 5: Maintenance, Administration, and Packaging Features, Paqes 19 and 20	Clarification is requested as to the presence of the cesium radiation sources and how they are to be properly managed and disposed. Oversight agencies involved with these units should be cited.		We have removed the Cesium references as appropriate. We have also included additional information in Section 8.1 to address Cesium as part of the decon/demolition phase under the supervision of the City or County.
25	GSU	Christopher Guerre	4.0 STUDY AREAS, Vacant Land Features, Page 20	The text discusses residential homes on the western portion of the study area. It appears that residential homes occurred on the eastern portion of this parcel based on review of aerial photographs. Clarification/revision is requested.		This has been addressed in Section 4.0 of the SAWP.
26	GSU	Christopher Guerre	5.0 REVIEW OF PREVIOUS REGULATORY INVOLVEMENT, Page 22	This portion of the document should mention South Coast Air Quality Management District's (SCAQMD) hexavalent chromium air detections along the cement plant's fence line which were sourced from somewhere onsite.		This section of the SAWP has been revised that indicates that AQMD has required perimeter air monitoring under the Title V permit requirements at multiple locations.

DTSC Response to Comments for Site Assessment Work Plan

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27	GSU	Christopher Guerre	7.0 PREVIOUS LANGAN INVESTIGATIONS, (Surface, Mining, and Crushing), Paqe 25	This section should note that samples of CKD were generally not analyzed at a laboratory during the previous investigations. The lone sample analyzed (LT-21) yielded a very high 2,000 mg/kg chromium concentration and Cr6' was not analyzed. See Specific Comment K from the GSU memorandum dated February 23, 2018 for additional information.		Based on prior input from DTSC, the SAWP addresses the collection and analysis of additional samples across the Site.
28	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 19: Proposed Investigation Plan (Surface, Mining, and Crushing), Surface Mining and Crushing, Paqe 29	The table indicates that the lateral and vertical extent of contamination related to cement kiln dust (CKD) has been delineated for the surface mining and crushing area. The GSU disagrees as only two samples over this 28 acre parcel have been analyzed for Cr6". Additional samples are being proposed as part of the Wet Weather Quarry (WWQ) characterization, but additional data are needed. An additional sample of noncomposited CKD material from the LT-26 area is requested for western coverage. A trench sample location is also requested in the central lobe of white material southeast of LT-27. This area seems to be established in its current configuration as pictured in an aerial photograph from 1995. 1974 to 1990 aerials show that the area was used as lay down area for light colored materials. The sample location planned for the SCAQMD Hexavalent Chromium Sampling in this area should be scanned for CKD material and discrete sample(s) should be collected to evaluate CKD composition and variability. Dioxin/furan data also needs to be collected for the CKD as no data currently exists. The United States Environmental Protection Agency's (USEPA's) August 1999 Environmental Fact Sheet titled Management Standards Proposed for Cement Kiln Dust Waste identified arsenic, cadmium, lead, thallium, and chlorinated dibenzodioxins and dibenzofurans as contaminants of concern associated with CKD. Recent CKD metal data presented in Table 18 supports the metals suite identified by USEPA. The lack of dioxin/furan data for the CDK represents a data gap that needs to be addressed. CDK samples should be analyzed for dioxin/furans.		This is accounted for in the current SAWP.

DTSC Response to Comments for Site Assessment Work Plan

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29	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 19: Proposed Investigation Plan (Surface, Mining, and Crushing), Wet Weather Quarry, Paqe 29	Borings SMC-SB-1 and 2 are proposed in the WWQ to evaluate the nature of the backfill materials in the historic quarries. It appears that the locations of SMC-SB-1 and 2 as pictured on Figure 3 need to be moved based on anticipated thickness of the backfill and current terrain (i.e., maximize fill thickness by moving SMC-SB-2 about 100 feet (ft) northeast so that it is away from the edge of the old quarry and intercepts a greater thickness of fill. SMC-SB-1 appears to be plotted on an inaccessible slope and will probably have to be moved). The boring depth of 20 ft seems too shallow compared to the current topographic relief. A boring depth should be selected to allow drilling to continue to the historic lowest elevation of the old quarries. If feasible, drilling should continue through saturated fill/waste until the base of the old quarry is reached. The 2017 PEA Report indicates that excavation in the WWQ went down to approximately 825 ft above mean sea level. A sonic drill rig is highly recommended to ensure successful completion of the task. It is doubtful that a hollow stem auger would be successful considering the great potential for boulders and concrete rubble to be present in this area. Based on review of a 1940 Lone Star/WWQ quarry map and historic aerial photographs, an additional deep boring is needed to assess waste/fill thickness and composition in the Lone Star Quarry area. A location midway between the quarry "slot" on the upper terrace is requested. The analytical suite for these three quarry borings should be more robust than presented in Table 25 due to the volume of backfill and uncertainty regarding its composition. It is suggested that TPH, SVOCs, PCBs, and PAHs be included on the Table 25 analytical suite for these boring. Some dioxin/furan data are also requested. Cr6' analyses should be conducted at all depths since CKD could be located at any depth. Sample collection depths for the deep borings should be revaluated after the total depths of the deeper boring are confirmed.		During the field markout portion of the pojrect, we will work with the DTSC to relocate borings/trenches to more feasible areas and accommodate the data collection as presented in this comment (Comment 29).
30	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 20: Proposed Investigation Plan (White Cement Plant), Boiler Blowdown Pond, Paqe 29	Metals should be added to the WCP-SB-1 analyte list on Table 25. The rationale for this boiler blow down location (WCP-SB-1) should be clarified. The GSU recommends the location just north/adjacent to the 210,000 gallon above ground storage tank (AST) inside the impoundment since it is a low spot that is often wet in aerials. However, previous trench LT-23 did encounter a cement pad at 2 feet which terminated the trench. The exact locations of both WCP-SB-1 and LT-23 are uncertain to the GSU and clarification is requested. If the proposed trench is close to the 210, 000 No. 6 Bunker C AST, then add SVOCs and PAHs to the analyte list. If not, samples should be collected after AST demolition. A soil gas vapor sample by the 210,000 gallon AST is requested preferably by the southern sump.		This has been added to Table 27.
31	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 20: Proposed Investigation Plan (White Cement Plant), Former White Kiln Pipeline Leak, Paqe 30	Soil gas sampling is requested for the Former White Kiln Pipeline Leak since there was a confirmed release. The sampling location(s) should be located at the release area and/or where residual contamination was detected and left in place.		Two soil gas points have been added to the Former White Kiln Pipeline Leak area (Figure 3).

DTSC Response to Comments for Site Assessment Work Plan

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
32	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 20: Proposed Investigation Plan (White Cement Plant), Sewer Alignments, Page 30	A soil gas sample location is requested for the sewer system due to the age of the line and its location near the end of the line. An appropriate location should be proposed.		This will added after site utility clearance to obtain a better understanding of the sewer alignments.
33	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 21: Proposed Investigation Plan (Grey Cement Plant), Former Water Coolers, Page 31	Is there anyway of refining the location for GCP-LT-1? It is assumed that the former water cooler area has been buried, but are there infrastructure left (e.g., buried pipelines/electric) that leads to the former unit?		We are unaware of any infrastructure left that leads to the former unit.
34	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 21: Proposed Investigation Plan (Grey Cement Plant), Boiler House, Page 31	A soil sample is requested for this unit as it is assumed that boiler discharge would occur in the vicinity. TPH, Metals, and Cr6“ should be analyzed for this unit.		The boiler house is within the sampling radius of SW-17. If during the SAWP implentation, the boiler house is identified/located a discrete sample will be collected and analyzed for metals and CrVI. SW-17 will be analyzed for metals, CrVI and TPH (Table 27).
35	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 21 : Proposed Investigation Plan (Grey Cement Plant), Motor Buildings, Page 31	The GSU is uncertain of the operations of the several Motor Buildings/Control Centers listed on the table and, therefore, is uncertain if sampling is required for these units. Building access was limited to nonexistent when briefly viewed during a site visit. The interior of these units should to be viewed and their sampling needs discussed.		We will reevaluate this area after performing a site visit.
36	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 21 : Proposed Investigation Plan (Grey Cement Plant), Former Grey Kiln 1 & 2, Page 31	The location of GCP-LT-2 appears too far away from the kilns. It should be moved across the street to the east towards the kilns. Table 21 indicates that GCP-LT-4 is assessing the Baghouses, yet GCP-LT-3 is located adjacent to the former Bag Houses on Figure 3. Revision is requested.		Revision made to GCP-LT-3.
37	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 21: Proposed Investigation Plan (Grey Cement Plant), Former Tall Oil AST 10,000 Gallons, Page 31	Add TPH, SVOCs and PAHs to the GCP-LT-5 analyte list due to the tar oil and glycol tanks.		TPH, SVOCs and PAHs are included for GCP-LT-5 in Table 27.

DTSC Response to Comments for Site Assessment Work Plan

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
38	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 21: Proposed Investigation Plan (Grey Cement Plant), Former Coal Storage, Paqe 31	Add PAHs to GCP- LT-6.		PAHs are added to GCP-LT-6 in Table 27.
39	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 21: Proposed Investigation Plan (Grey Cement Plant), North/East/South Berms, Page 32	Dioxin/furans should be added to these samples since they are anticipated to contain CKD (See Comment 28). Perhaps the dioxin/furans analyses can focus on those samples yielding the most CKD.		Dioxins have been added to the analyte list for these samples (Table 27).
40	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 23: Proposed Investigation Plan (Maintenance, Administration, and Packaging), Former Fleet Truck Parking, Page 32	Add PAHs to MAP-LT-2		PAHs are added to MAP-LT-2 in Table 27.
41	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 23: Proposed Investigation Plan (Maintenance, Administration, and Packaging), 6,000,000 Gallon Bunker C Fuel Oil UST, Paqe 33	Add PAHs to MAP-SB-2 and 3		PAHs are added to MAP-SB-2 and 3 in Table 27.
42	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 23: Proposed Investigation Plan (Maintenance, Administration, and Packaging), Former Material Yard & Former Boiler Shop, Page 34	Table 23 describes sampling locations MAP-SG-4 and 5 as soil vapor samples, yet Table 25 indicates soil matrix material is also being collected. Clarification is requested		These two points will be both soil borings and soil gas points. (copy from previous repsonse)

DTSC Response to Comments for Site Assessment Work Plan

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43	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, Table 23: Proposed Investigation Plan (Maintenance, Administration, and Packaoino), Former Power House & Tube Mills, Page 34	Table 23 describes sampling locations MAP-LT-4 and 5 for assessing potential Cr6' and metals, yet Table 25 omits Cr6' for these samples. Cr6' should be added to Table 25.		CrVI analysis has been added to MAP-LT-4 and 5
44	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, SCAQMD Hexavalent Chromium Sampling, Page 35	The section should be revised to refer to Figure 3 instead of Figure 2. More importantly, each Cr6" sampling location should be identified on Figure 3 and in any tables with a unique sample identification number so that laboratory results can be associated with a particular location.		Revised. Each CrVI sampling location has been identified with a unique sample identification number.
45	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, SCAQMD Hexavalent Chromium Samplinci, Page 35	The section states, "The primary objective of the proposed sampling is to evaluate hexavalent chromium concentrations in shallow soils that may come into contact with workers during future activities involving demolition of Site structures and mass grading operations in preparation for future development of the Site." The section should acknowledge that hexavalent chromium might also occur at depth, but will be evaluated with other SAWP samples or during demolition sampling. Since Cr6' has been detected at the facility fence line as part of SCAQMD monitoring, an additional objective would be to identify Cr6' sources that could cause air quality impacts both onsite and offsite.		This has been addressed in Section 9.0 of the SAWP and the SAP (Appendix F)
46	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, SCAQMD Hexavalent Chromium Samplinq, Page 35	Revise the section to state that composite samples will only combine similar materials. If distinctly different materials are observed, then discrete samples should also be taken and not combined with the rest of the composite sample. Do not obtain samples from the excavator bucket unless it is unsafe to access the pothole/trench (see Specific Comment 28 below). Obtain subsamples from the walls or floor of the trench after examining the lithology/fill.		This has been addressed in Section 8.0 of the SAWP.
47	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, SCAQMD Hexavalent Chromium Samplinq, Page 35	While collecting and mixing composite samples, make sure trowels/mixing paddles are not metal plated (stainless steel construction is preferred). Do not use metal plated tools as they have flaked off and caused false metal detections on other sites. A large size stainless steel screen (must be washed/deconned) should be considered to remove gravel size material.		Understood.
48	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, SCAQMD Hexavalent Chromium Sampling, Page 35	For the six raw materials/clinker storage bay composite samples, do not use the proposed 100 foot radius for compositing. Instead, composite five samples along a north/south path spread out evenly over the entire length of the bay. A separate, unrelated sample should be completed in the fifth bay from the east and analyze for Metals, Cr6+, TPHs, SVOCs, and PAHs, since it contained unknown liquids in 2009.		The sample locations in the raw material/clinker storage bay have been revised to include collection in a linear fashion the full length of the bay. Figure 3 has been revised to reflect this change.
49	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, SCAQMD Hexavalent Chromium Sampling, Page 35	For the six vacant parcel locations, also collect a surface sample composite from 0 to 2 inches to assess surficial impacts (see DTSC email to SCAQMD dated February 22, 2018). These six 0-2 inches composite samples should be excluded from background calculations and be collected with hand trowels. This also applies to samples VL-LT-2 and 3. For the six vacant lot samples, the one and five foot samples should not be collected from the excavator bucket, but should be collected with hand tools so that any sluff from above is minimized or eliminated. These six vacant lot samples along with samples VL-LT-2 and 3 should be used for determining site specific background concentrations provided anomalous contamination is not detected. At least three of the six vacant lot samples should be analyzed for dioxin/furans to supplement VL-LT-2 and 3.		Per the discussion in the meeting on 2 July 2018, the samples from proposed trenches in the vacant parcel (VL-LT-2 and VL-LT-3) as well as the three proposed AQMD locations (SW-4,5, and 6) will have the samples composited at 1 feet and 5 feet for a total of 10 samples. These samples will be used as background data and will be analyzed for metals, hexavalent chromium, and dioxins.

DTSC Response to Comments for Site Assessment Work Plan

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
50	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, SCAQMD Hexavalent Chromium Sampling, Page 35	For the Cr6' composite sample centered on MAP-SG-4 on Figure 3, it is suggested that the composite samples be collected from within the Former Material Yard footprint to minimize mixing of different operational areas.		Understood. Composite samples will be collected from within the Former Material Yard.
51	GSU	Christopher Guerre	8.0 PROPOSED INVESTIGATION PLANS, SCAQMD Hexavalent Chromium Sampling, Page 36	A wire brush alone should not be used to decontaminate equipment (See Comment 53). To expedite sampling, take multiple hand tools to allow uninterrupted sampling while others are drying. Use disposable scoops where possible		Revised in Section 8.0 of the SAWP.
52	GSU	Christopher Guerre	9.0 FIELD INVESTIGATION AND SAMPLING, Page 37	Prior to subsurface geophysics, it is recommended that DTSC confirm the general boring/trench areas in the field and then again after surveys (place stake/markers in the field at final locations) should the location be significantly altered.		Understood.
53	GSU	Christopher Guerre	9.0 FIELD INVESTIGATION AND SAMPLING, Page 37	The section states that, "Sampling tools, drilling equipment and other equipment coming into contact with soils will be decontaminated prior to use at each investigation location using a non-phosphate detergent such as Alconox and rinsed with clean water and/or a wire-brush to remove soil and debris from the tools." Decontamination of sampling tools with just a wire brush should not be conducted, but should be accompanied by detergent wash and a final rinse. Augers or drill pipe should be pressure washed. For test pits, periodic decontamination of the excavator bucket should be done and done immediately after moving from a location if suspected contamination was encountered.		Revised in Section 8.0 and 9.0 of the SAWP.
54	GSU	Christopher Guerre	9.0 FIELD INVESTIGATION AND SAMPLING, Page 37, Test Pits	Soil sample collection should be described in a SAP including container types, preservation techniques, etc. Revise this section to indicate that shallow samples should be collected off side walls or pit floors that have been first freshly exposed (e.g., scrapped with a shovel) to minimize introduction of soil sluff from above. Where trench entrance is not allowed for safety, samples may be taken from the excavator bucket, but care should be used in collecting representative samples that are free of as much mixed material as possible. Hand sampling using tool extensions should be used as needed.		Revised in Section 9.0 of the SAWP and the SAP. Additional details have been included in the SAP to provide information regarding sample collection methodology and types of containers to be used.
55	GSU	Christopher Guerre	9.0 FIELD INVESTIGATION AND SAMPLING, Page 37, Test Pits	This section and the Soil Boring section states, "Soil with suspected impacts based on photoionization detector (PID) readings will be wrapped in visqueen and analyzed." The section should be revised and the SAP should indicate that soil matrix sampling for VOCs will be immediately collected using USEPA Method 5035 (e.g., Encore, methanol preservation, etc.). USEPA Method 5035 should be described in sufficient detail to ensure samples are properly collected by the field crew		Revised in Section 9.0 of the SAWP and the SAP. Additional details have been included in the SAP to provide information regarding sampling methodology.
56	GSU	Christopher Guerre	9.0 FIELD INVESTIGATION AND SAMPLING, Soil Borings, Page 37 and 38	Hollow-stem augers are proposed to be used. Should they fail to reach the desired boring depth, another drilling method must be selected to complete the task. The GSU recommends that sonic drilling methods be considered due to the likelihood for debris, concrete, and boulders to occur in backfilled areas, especially the WWQ and Lone Star quarry areas. The SAWP should be revised to address this issue.		Revised in Section 9.0 of the SAWP. Previous drilling and excavations completed at the site with hollow-stem augers and excavation equipment were able to achieve the depths intended. Other methods, i.e. sonic, will be considered if subsurface conditions warrant the use of other equipment besides hollow stem augers.
57	GSU	Christopher Guerre	9.0 FIELD INVESTIGATION AND SAMPLING, Soil Borings, Page 37 and 38	The section states, "Prior to advancing the hollow stem augers, the upper 5 feet will be hand augured and soil cuttings will be collected as a bulk sample using a shovel." This method of collecting bulk samples is not desired for environmental sampling. Discrete samples should be collected. The basis for hand-augering should be stated (assumed for utility clearance and that it wouldn't be required in all areas). The SAWP should be revised to address this issue.		Revised in Section 9.0 of the SAWP. The purpose of hand augering the upper five feet will be for utility clearance where geophysical methods may not provide sufficient information to determine if the location is free of subsurface utilities. Hand auger the upper 5 feet may not be conducted at each location if other methods (i.e. geophysical) provide sufficient details that utilities and/or obstructions are not present.

DTSC Response to Comments for Site Assessment Work Plan

Comment Number	DTSC Division	Commentator	Report Section/Category	Comment		Response (initial Draft)
58	GSU	Christopher Guerre	9.0 FIELD INVESTIGATION AND SAMPLING, Soil Gas Vapor Probes, Page 38	Probe construction is described in the section. To ensure collection of appropriate vapor samples, please add details of vapor sampling (e.g., tracer gas to be used, purging methods, sample containers, time/days needed between installation and sampling, and sampling deferral protocol if rain is in the forecast) into a SAP. See also General Comment C		Additional details regarding vapor probe sampling procedures, methods, sample containers, etc. have been included in the SAP.
59	GSU	Christopher Guerre	10.0 DOCUMENTATION, Page 39	Ensure field observations include documentation of debris and potential contamination (e.g., discoloration/staining/moisture/odors as well as monitoring instrument readings (PID, etc.). Test pit walls should be photographed in addition to logging.		Understood.
60	GSU	Christopher Guerre	11.0 REPORTING, Page 40	Under the Soil Matrix Analytical Results heading add "Other Organics" for discussion/presentation of results for PCBs, dioxins, PAHs, SVOCs, etc. Include a section summarizing any deviations from the approved SAWP.		"Other Organics" added and "Deviations from the SAWP" added to Section 11.0 of the SAWP.
61	GSU	Christopher Guerre	11.0 REPORTING, Page 40	Also" add a section for site background		Added "Summary of Site Background" in Section 11.0 of the SAWP.

APPENDIX B

Tables

Table 8: Previous Site Investigations (Surface Mining and Crushing)

BUILDING/STRUCTURE	FEATURE	HISTORICAL REPORT	REPORT DATE	HISTORICAL SAMPLING	SAMPLING RESULTS	CLOSURE ACTION	CLOSURE DATE	AGENCY OVERSIGHT
Surface Mining and Crushing	CKD Containing Soil	Ecology & Environmental - Field Investigation Team Zone II (FIT)	9/30/1990	2 soil samples from CKD-suspected areas. Both analyzed for metals, one analyzed with California Waste Extraction Test (WET). CKD disposed of in quarry excavations of Jensen, Commercial, Wet Weather quarries and in a depression near entrance to Crestmore Mine.	Maximum chromium: 4.6 mg/kg Maximum lead: 106 mg/kg No metal concentrations tests for the WET evaluation exceeded Soluble Threshold limit concentration.	--	--	EPA
		ERM West, Boiler Blowdown Pond Closure Plan	Aug-91	Installed and sampled MW-1 (upgradient) and MW-3 (downgradient) to evaluate groundwater impact from former CKD disposal area. Analyzed for metals.	Max total chromium: 13 ug/L (MCL: 50 ug/L).	Use native overburden as cover material.	--	RWQCB
		ERM West - Technical Evaluation to 9/30/1990 FIT Report	Nov-91	--	Mark Adelson (RWQCB) stated that the RWQCB "has no intention of increasing its involvement with the RCC site. Currently the site permit to discharge water from its wastewater treatment plant is the primary focus of the RWQCB.	--	--	EPA
		Bechtel - SIP	6/22/1994	--	RWQCB not "currently considering increasing its activity at this site."	--	--	EPA
		RWQCB Letter	7/6/1994	--	Upgradient and downgradient wells located and sampled by ERM-West did not demonstrate a release of chromium or any other metal to groundwater. RWQCB recommend the EPA to close file with a NFA.	--	--	RWQCB
		ERM West - Review of Bechtel Site Inspection Prioritization Report (SIP)	10/12/1994	MW-1 and MW-3 sampled annually. Latest test date: 10/28/1996. Tested for: metals, hex chrome, lead, alkalinity, chloride (<250 mg/L), nitrate (< 45 mg/L), sulfate (< 250 mg/L), color, conductivity (<900 umhos/cm) , fluoride (< 1.4 mg/L), odor (< 3 threshold odor number_, pH (< 6.5 or > 8.5), surfactants (< 0.5 mg/L), TDS (< 500 mg/L).	All results from 10/1996 event were below the drinking water MCL. Turbidity was reported at 15 NTU.	--	--	EPA
		ERM West, Annual Groundwater Monitoring Report	12/4/1996	--	Report concluded that the site is CERCLA eligible.	--	--	RWQCB
		DTSC, Site Screening Assessment	12/8/2006	--	Stated that there is no potential for a release at the site based on site reconnaissance/regulatory search. In 1991, RCDEH determined NFA for USTs.	--	--	DTSC
		DTSC, Site Screening Assessment	5/4/2009	10/2014 - SCAQMD allowed facility to reduce sampling at its four monitoring sites to once every sixth day.	--	--	--	DTSC

Table 8: Previous Site Investigations (Surface Mining and Crushing)

BUILDING/STRUCTURE	FEATURE	HISTORICAL REPORT	REPORT DATE	HISTORICAL SAMPLING	SAMPLING RESULTS	CLOSURE ACTION	CLOSURE DATE	AGENCY OVERSIGHT
Surface Mining and Crushing (contd.)	CKD Containing Soil (contd.)	AECOM - DRAFT Compliance Plan for Post-Closure Activities	3/28/2016	--	--	--	--	--
Northwest corner of surface, mining, and crushing area	Former Secondary Reduction	--	--	--	--	--	--	--
Former Iron Ore Storage	Former Iron Ore Storage	--	--	--	--	--	--	--
Wet Weather Quarry	Wet Weather Quarry	--	--	--	--	--	--	--
East of Former Secondary Reduction	Transformer	--	--	--	--	--	--	--

Table 9: Previous Site Investigations (White Cement Plant)

BUILDING/ STRUCTURE	FEATURE	HISTORICAL REPORT	REPORT DATE	HISTORICAL SAMPLING	SAMPLING RESULTS	CLOSURE ACTION	CLOSURE DATE	AGENCY OVERSIGHT
Boiler Blowdown Pond	Boiler Blowdown Pond	ERM West, Boiler Blowdown Pond Closure Plan	Aug-91	--	--	The closure plan procedure will be to remove the liquid, remove soils and plastic liner by excavation and stockpile on site, assume depth of excavation to be 2'. Confirmation samples will be taken and analyze for TPH, total chromium, and total lead.	--	RWQCB
		ERM West, Boiler Blowdown Closure Report	May-95	Four soil samples before excavation: avg. 5350 umhos/cm Post excavation samples analyzed for TPH, total chrome, hex chrome, and conductivity	As excavation progressed, samples only analyzed for conductivity per the RWQCB. Average conductivity of final samples: 667.5 umhos/cm	Soil excavation, clay backfill, 45-mil thick liner	--	
		RCC submitted to RWQCB	1/24/1995		1/4/1995 - average sampling per hole was 1,850 umhos/cm.	Excavation backfilled with clay and covered with 45-mil-thick liner. Former pond area now is a lined, secondary containment basin for 210,000 AST.	6/15/1995: closure complete and approved	
				1/23/1995 - 6 background tests for conductivity. 3 samples taken north and northeast of berm, and 3 taken southeast, south, and southwest of berm.	Northern/NE berms ranged from 140 - 360 umhos/cm			
				--	Southern berms ranged from ND - 220 umhos/cm.			
Boiler Blowdown Pond	No. 6 (Bunker C) Fuel Oil 210,000 Gallon AST	--	--	--	--	Cathodic protection system installed prior to backfilling operations: 5 anodes around base of tank. Tank cleaned.	--	RWQCB
White Kiln Pipeline and Diesel Pump	2 Former 12,000 Gallon Diesel UST	DES, UST Closure Report	Jun-97	Two samples taken at 14' and 16', one sample taken at 17' and 18'.	Samples analyzed for BTEX, Diesel, and Motor Oil. Two samples (400 and 401): motor oil (26 and 79 mg/kg) above PQL 10 mg/kg. Remaining samples ND.	Excavated to 12' and removed 6/23/1997	9/3/1997	RCDEH
	Former White Kiln Pipeline Leak	Complaint Report	8/20/1993	--	--	--	--	
		Site Assessment Work Plan Approval Conditions	12/12/1994	3 of the highest contaminated boring samples will need to be analyzed using EPA method 8020 and 418.1. Number of soil samples for lab analysis will be based on field observations. Two consecutive clean samples required to confirm extent of contamination in each boring.	--	--	--	
		RMI, Site Assessment Report	7/7/1995	8 borings drilled on 1/30/1995. Soil samples collected at 5' incremental depths for each boring. Centrum Analytical Labs (on-site laboratory) analyzed selected samples for immediate TRPH and/or diesel testing. Three samples with highest hydrocarbon concentrations sent to off-site lab (Centrum) for fuel screen analysis - TEPH and BTEX.	Fuel oil pipeline release seemed contained with ND hydrocarbons and at depths within boring B-1 beneath 10' interval. Diesel pumping station had diesel ranging from 9800 - 12000 mg/kg around B-7. Deepest soil samples from borings around B-7 reported at ND for diesel - indicate release localized beneath diesel pumping station.	--	--	

Table 9: Previous Site Investigations (White Cement Plant)

BUILDING/ STRUCTURE	FEATURE	HISTORICAL REPORT	REPORT DATE	HISTORICAL SAMPLING	SAMPLING RESULTS	CLOSURE ACTION	CLOSURE DATE	AGENCY OVERSIGHT
White Kiln Pipeline and Diesel Pump (contd.)	Former White Kiln Pipeline Leak (contd.)	Conditions of White Kilns Assessment Approval	11/28/1995	450 yd3 of contaminated soil (33,000 - 37,000 mg/kg TPH) to be excavated, 4'' well should be installed at the midpoint between original release point and boring #7, generated materials need to be disposed of within 90 days, materials generated must be secured to prevent any release into environment.	--	--	--	RCDEH
White Kiln Pipeline and Diesel Pump	Former White Kiln Pipeline Leak	RMI, Report of Findings	12/11/1995	10 confirmation samples analyzed for TRPH (EPA Method 418.1)	Results ranged from ND - 15 mg/kg for TRPH.	Excavation (approx. 59' x 23') ranged from 9' - 13', west and east end respectively. Excavated soil was stained and had slight petroleum odor. Soil was stockpiled on-site.	--	RCDEH
		RMI - MW Report	3/21/1996	Free product monitoring well installed on 1/19/1996 at midpoint between release point and B-7. 10'' boring advanced to 13' bgl. Well checked for presence of free product on 1/26/1996, 2/5/1996, 2/29/1996, and 3/20/1996.	No free product detected during any monitoring episodes.	--		
		--	--	--	--	NFA: Closure based on soil sampling, well installations, and free product monitoring period (January 1996 - March 1996).	5/6/1996	RCDEH
Finish Mill	Diethylene Glycol AST	--	--	--	--	--	Cleaned and removed	--
	Acetic Acid (80%) AST	--	--	--	--	--	Cleaned and removed	--
Southeast of White Kilns	Sewer Alignments	--	--	--	--	--	--	--
Raw Mix Silos	Raw Mix Silos	Altec - Hazmat Survey	1999	--	--	--	--	--
Raw Mills	Raw Mills	Altec - Hazmat Survey	1999	--	--	--	--	--
Feed Silos	Feed Silos	Altec - Hazmat Survey	1999	--	--	--	--	--
Former Primary Crusher	Former Primary Crusher	Altec - Hazmat Survey	1999	--	--	--	--	--
Kilns	Kilns	Altec - Hazmat Survey	1999	--	--	--	--	--
Clinker Silos	Clinker Silos	Altec - Hazmat Survey	1999	--	--	--	--	--
Former Dryers	Former Dryers	--	--	--	--	--	--	--
South of Finish Mills	Transformers (2)	--	--	--	--	--	--	--
South of Feed Silos	Transformer	--	--	--	--	--	--	--

Table 10: Previous Site Investigations (Grey Cement Plant)

BUILDING/STRUCTURE	FEATURE	HISTORICAL REPORT	REPORT DATE	HISTORICAL SAMPLING	SAMPLING RESULTS	CLOSURE ACTION	CLOSURE DATE	AGENCY OVERSIGHT
North of Boiler House	Former Diesel UST 10,000 Gallons	CTT - Final Report Removal of Storage Tanks	Mar-88	2 samples taken at 2' and 1 sample at 2.5' below tank bottom and analyzed for TPH.	TPH: 34 - 15,000 mg/kg	Backfilled with excavated soils and 4 yd3 clean fill dirt. Leveled to existing grade.	1991	RCDEH
Southwest of Former Finish Grind Feed Bins	Former Water Coolers	--	--	--	--	--	--	--
Crushing Storage Silos	Crushing Storage Silos	--	--	--	--	--	--	--
Former Clinker Hopper	Former Clinker Hopper	--	--	--	--	--	--	--
Boiler House	Boiler House	--	--	--	--	--	--	--
Kiln Feed Silos	Kiln Feed Silos	--	--	--	--	--	--	--
Former Motor Control Building	Former Motor Control Building	--	--	--	--	--	--	--
Former Mill Motor Building	Former Mill Motor Building	Altec - Hazmat Survey	1999	--	--	--	--	--
Former Motor Control Center 1	Former Motor Control Center 1	Altec - Hazmat Survey	1999	--	--	--	--	--
Former Motor Control Center 2	Former Motor Control Center 2	Altec - Hazmat Survey	1999	--	--	--	--	--
Former Motor Control Center 3	Former Motor Control Center 3	Altec - Hazmat Survey	1999	--	--	--	--	--
Former Grey Kiln 1 & 2	Former Grey Kiln 1 & 2	Altec - Hazmat Survey	2018	--	--	--	--	--
				--	--	--	--	--
Baghouses	Baghouses	Altec - Hazmat Survey	2018	--	--	--	--	--
Chino Substation	Chino Substation	--	--	--	--	Removed prior to berm placement.	--	--
Former Raw Mills	Former Raw Mills	--	--	--	--	--	--	--
Former Finish Grind Feed Bins	Former Finish Grind Feed Bins	--	--	--	--	--	--	--
Former Finish Mills	Former Finish Mills	--	--	--	--	--	--	--
Northwest corner of Grey Cement Plant	Former Diethylene Glycol AST 12,000 Gallons	--	--	--	--	Tanks labeled "emptied/cleaned"	Dec-15	--
Northwest corner of Grey Cement Plant	Former Tall Oil AST 10,000 Gallons	--	--	--	--	Tanks labeled "emptied/cleaned"	Dec-15	--
East of Former Motor Control Bldg.	Electrical Conduit Corridor	--	--	--	--	--	--	--
West of Former MCC-1	Former Propane Tank	--	--	--	--	--	--	--
North of former Motor Control Center 2	Former Sodium Hypochlorite AST	--	--	--	--	--	--	--

Table 10: Previous Site Investigations (Grey Cement Plant)

BUILDING/STRUCTURE	FEATURE	HISTORICAL REPORT	REPORT DATE	HISTORICAL SAMPLING	SAMPLING RESULTS	CLOSURE ACTION	CLOSURE DATE	AGENCY OVERSIGHT
West of former sodium hypochlorite AST	Mine Air Vent	--	--	--	--	--	--	--
Former Coal Storage	Former Coal Storage	--	--	--	--	After the kiln shut down, the unused coal was hauled to Oro Grande.	--	--
Well 88-1	--	ERM West - Tech Eval. To FIT Report	Nov-91	--	From E&E, 1990: well has shown total chromium levels of 0.02 mg/L in 1988 and 1989.	--	--	--
MW-1	--	ERM West - Tech Eval. To FIT Report	Nov-91	6/11/1991 sampling	Chromium: <10 ug/L	--	--	--
		ERM West, Annual groundwater monitoring report	12/4/1996	Measured temperature, conductivity, turbidity, pH of groundwater. 10/28/1996 sampling date.	Metals and general chemicals below drinking water MCL	--	--	--
North/East/South Berms	North/East/South Berms	--	--	--	--	--	--	--
Throughout Study Area	Transformers	--	--	--	--	--	--	--

Table 11: Previous Site Investigations (Maintenance, Administration, and Packaging)

BUILDING/STRUCTURE	FEATURE	HISTORICAL REPORT	REPORT DATE	HISTORICAL SAMPLING	SAMPLING RESULTS	CLOSURE ACTION	CLOSURE DATE	AGENCY OVERSIGHT
West of Former Agriculture Division	Former Parking (Northwest)	--	--	--	--	--	--	--
Northwest of center of former Fleet Truck Parking	Former Agriculture Division	--	--	--	--	--	--	--
Northwest of center of former Fleet Truck Parking	Abandoned Substation	--	--	--	--	--	--	--
East of Transportation Office	Former Fleet Truck Parking	--	--	--	--	--	--	--
Transportation Office	Transportation Office	Altec - Hazmat Survey	1999	--	--	--	--	--
Former Garage Salvage Yard	Former Gasoline UST 10,000 gallons	Decon Environmental Services (DES) - UST Closure Report	Jun-97	4 samples taken. 13.5' and 17' bgs on the west end, 3.9' by the dispenser, and 14' for the remaining sample. Analyzed for lead, TPH-gasoline, and BTXE.	All sample results were ND for TPH-gasoline (< 1.0 mg/kg) and BTEX (< 5.0 ug/kg). Samples collected for lead were ND except for a sample collected at 3.9' had 5.0 mg/kg lead. (PQL Lead: 5.0 mg/kg).	Removed on 6/1997 under permit #97-144	9/3/1997 - NFA	RCDEH
Garage and Administrative Building	Washrack Discharge Point	--	--	--	--	--	--	--
Garage and Garage Storeroom	Former 3-Stage Clarifier	--	--	--	--	--	--	--
	Former Waste Oil AST 250 Gallons	--	--	--	--	--	--	--
	Former Diesel UST 10,000 Gallons	CTT - Final Report Removal of Storage Tanks (P-1156-88)	May-88	Samples taken at 15, 17, 28, 32, 34, and 35' below grade. Analyzed for TRPH under the tank.	TRPH: 440 - 17,000 mg/kg	Backhoe used to excavate. Tank contents emptied by vacuum truck, then cleaned, flushed, and triple rinsed and purged of flammable vapors with dry ice. Tank removed and transported to American Metal Recycling, Inc. to be cut for scrap. 250 yd3 of clean fill soils delivered to site as backfill.	1991?	RCDEH
	Former Diesel UST 1,000 gallons	--	--	--	Max: 17,000 mg/kg at 15' below grade. Subsequent samples decreased in TRPH concentration (< 1500 mg/kg below 32').	Diesel-stained soil removed from tank excavation with clam-shell crane. Excavation depth of 36' and 150 yd3 removed. Soil was stockpiled to be processed in the kilns.	--	--
	Former Gasoline UST 2,000 gallons	Altec - UST Closure Report	Jun-99	2 samples taken at 2' and 6' beneath center of tank. Analyzed for TPH, BTEX, MTBE, and organic lead 3 samples taken: 2 at 2' and 6' under the north invert, 1 at 2' under the south invert. 2 soil stockpile samples - east and NW of	All samples ND TPH (<5.0 mg/kg), BTE (<0.005 mg/kg), Xylenes (0.015 mg/kg), MTBE (<0.035 mg/kg), lead (< 0.25 mg/kg) Eastern stockpile sample organic lead (21.6 mg/kg). ND for other samples.	May 1999 - Soil excavated. Clean import. Backfilled.	July 1, 1999 - NFA	RCDEH
Crane Storage	Former Waste Oil UST 550 Gallons	CTT - Final Report Removal of Storage Tanks	Mar-88	Analyzed for TRPH and total lead	TRPH: 57 - 1000 mg/kg Total Lead: 0.9 mg/kg (2') and 3.3 mg/kg (5')	Backfilled with excavated soils and 4 yd3 clean fill dirt. Leveled to existing grade.	1991?	RCDEH

Table 11: Previous Site Investigations (Maintenance, Administration, and Packaging)

BUILDING/STRUCTURE	FEATURE	HISTORICAL REPORT	REPORT DATE	HISTORICAL SAMPLING	SAMPLING RESULTS	CLOSURE ACTION	CLOSURE DATE	AGENCY OVERSIGHT
Former Spray Pond	Former Suction Sump	--	--	--	--	--	--	--
Northeast of former spray pond	Former Sag Pond	--	--	--	--	--	--	--
Former Fleet Truck Parking	Settling Areas	--	--	--	--	--	--	--
Former 6M gallon tank/reservoir	Settling Areas	--	--	--	--	--	--	--
Former Crane/ former Clinker Hoppers	Settling Areas	--	--	--	--	--	--	--
Former Power House	Settling Areas	--	--	--	--	--	--	--
Southwest of Former Spray Pond	Hazardous Waste Storage Pad	--	--	--	--	--	--	--
Stormwater Retention Basin	Stormwater Retention Basin	--	--	--	--	--	--	--
East of Former 6M gallon tank	Crestmore Substation	--	--	--	--	--	--	--
Crestmore Substation	Former Diesel AST 1,000 Gallons	--	--	--	--	Decommissioned and removed.	--	--
North of former boiler shop	6,000,000 Gallon Bunker C Fuel Oil UST	ERM-West - Report of Results for the Investigation of Subsurface Conditions at a Fuel Oil Storage Tank	10/3/1986	Truck-mounted drilling rig used 8'' diameter hollow-stem continuous flight augers to drill 2 slant borings (east #1C and west #2B sides of tank soil berm). Boring 1C drilled to 34' bgs and boring 2B to 39' bgs. Shelby tubes (30'' x 2'' dia.) pushed ahead of auger. Five soil samples analyzed for TPH.	Max: boring 1C - 28.5' @ 410 mg/kg <50 mg/kg for remaining four samples	--	--	RCDEH
		ERM West - Investigation of Soil Conditions Below and Adjacent to the Fuel Storage	6/26/1987	Four vertical borings drilled to 25.5 - 27.5' below tank floor. Samples collected approx. every 5' per boring. 6 tank wall soil samples collected. All analyzed for TPH.	Max: 129,000 mg/kg in boring 1 at 20-20.5' bgs. Range: <1 to 129,000 mg/kg. Tank wall soil samples had a max of 47,000 mg/kg. The remaining samples ranged from 13 - 44 mg/kg	--	--	RCDEH

Table 11: Previous Site Investigations (Maintenance, Administration, and Packaging)

BUILDING/STRUCTURE	FEATURE	HISTORICAL REPORT	REPORT DATE	HISTORICAL SAMPLING	SAMPLING RESULTS	CLOSURE ACTION	CLOSURE DATE	AGENCY OVERSIGHT
North of former boiler shop	6,000,000 Gallon Bunker C Fuel Oil UST	RCC	7/6/1987	--	--	Oversight agency: RCDEH. Further assistance required by DTSC for the remedial action portion. Based on discussions with DTSC, RCP concluded they will proceed to install necessary equipment to insulfflate the contaminated soil in their kiln. They intended to pulverize the soil into an avg. fineness of 60-70% mesh sieve size and blow the dust into the firing end of the kiln.	--	RCDEH
		RCC, Planned Activities Surrounding Closure of the Underground Storage Fuel Oil Storage Tank	8/4/1987	--	--	75,000 tons of material moved from the excavation. 50,000 tons were considered contaminated, and stockpiled throughout Site. Remaining soil used for fill during excavation, material to build ramps, or stockpiled for fill to reclaim the pit.	--	RCDEH
		RCC	9/23/1987	7 confirmatory samples taken on 7/10/1987, 8/20/1987. analyzed for hydrocarbons by infrared spectrometry. 8 samples taken 8/13/1987 and 7/28/1987. Locations of samples in report.	July 10 : ranged from ND (<1.0) to 20, 534 August 20: ranged from 88.1 - 1171 August 13: ND (<1.0) to 49071 July 28: 18.5 - 17093	Tank removed.	11/4/1987 - NFA	RCDEH
		RCC	8/31/1988	--	--	Agreed with RCDEH to have a trial to use excavated soils to formulate a "road mix." The "road mix" would be used to pave roads at the site.	--	RCDEH
		RCC	1/18/1989	Babcock Labs performed EPA Method 9070 and 9071 tests to determine total oil and grease content of the sample material and amount of total oil and grease that is extractable, respectively.	Method 9070: <10 mg/L extractable Method 9071: 4.5% total oil and grease (45,000 mg/kg)	--	--	RCDEH
		RCDEH - Permission	2/10/1989	--	--	Soil stockpiles contaminated with Bunker C heating fuel are allowed to be used as raw materials for a typical product for cold mix asphalt.	--	RCDEH
6,000,000 Bunker C Fuel Oil Tank	Former Reservoir	--	--	--	--	--	--	--

Table 11: Previous Site Investigations (Maintenance, Administration, and Packaging)

BUILDING/STRUCTURE	FEATURE	HISTORICAL REPORT	REPORT DATE	HISTORICAL SAMPLING	SAMPLING RESULTS	CLOSURE ACTION	CLOSURE DATE	AGENCY OVERSIGHT
NE of former garage salvage yard	Well 60-1	--	--	According to E&E, 1990: well was sampled for either hex chrome (Jan and June 1976 only) or total chromium from 1976 - 1989.	1976: 0.03 - 0.04 mg/L hex chrome Total chrome: 0.01 - 0.09 mg/L	--	--	--
Former Parking SE of 6M gallon tank	Former 1 Unleaded Gasoline/ 1 Diesel AST 2,000 Gallons each	--	--	--	--	Decommissioned and Removed. (when was this done, what documentation is available)	--	--
West of the Grey Silos	Former Propane Tank	--	--	--	--	--	--	--
Former Material Yard	Former Material Yard	--	--	--	--	--	--	--
Former Electric Shop	Former Electric Shop	Altec - Hazmat Survey	1999	--	--			
Former Boiler Shop	Former Boiler Shop	--	--	--	--	--	--	--
Former Machine Shop	Former Machine Shop	--	--	--	--	--	--	--
Former Repair Shop	Former Repair Shop	--	--	--	--	--	--	--
Stores	Stores	Altec - Hazmat Survey	1999	--	--	--	--	--
Stockhouse	Stockhouse	Altec - Hazmat Survey	1999	--	--	--	--	--
Packhouse	Packhouse	Altec - Hazmat Survey	1999	--	--	--	--	--
Truck Loading	Truck Loading	--	--	--	--	--	--	--
Compressor	Compressor	--	--	--	--	--	--	--
Former Power House	Original cement plant operations	--	--	--	--	--	--	--
Tube Mills	Tube Mills	--	--	--	--	--	--	--
Crane	Crane	--	--	--	--	--	--	--
Tunnel	Tunnel	--	--	--	--	--	--	--
Two Plastic Silos	Two Plastic Silos	--	--	--	--	--	--	--
Plastic Silo	Plastic Silo	--	--	--	--	--	--	--
White Silos	White Silos	--	--	--	--	--	--	--
Grey Silos (2)	Grey Silos (2)	Altec - Hazmat Survey	2018	--	--	--	--	--
Silo (north of former powerhouse)	Silo (north of former powerhouse)	--	--	--	--	--	--	--
Throughout study area	Transformers	--	--	--	--	--	--	--

Table 12: Previous Langan Investigations (Surface Mining and Crushing)

BUILDING/STRUCTURE	FEATURE	LANGAN TRENCH ID	RESULTS	POTENTIAL COCs
Surface Mining and Crushing	CKD Containing Soil	LT-21, LT-26, LT-27, LT-28, LT-29, LT-30, LT-31, LT-32, LT-33, LT-41, LT-XF-9	Samples analyzed for metals were below ESLs. One exception of nickel (150 mg/kg) at LT-21 that exceeded the nickel ESL (86.3 mg/kg).	Metals and CrVI
Northwest corner of surface, mining, and crushing area	Former Secondary Reduction	--	--	--
Former Iron Ore Storage	Former Iron Ore Storage	LT-26	Analyzed for TPH and metals. TPH below ESLs. Metals: Cd (7.1 mg/kg), lead (79 mg/kg)	Metals and CrVI
Wet Weather Quarry	Wet Weather Quarry	LT-32, LT-44	No laboratory analyses were performed for these two trenches.	
East of Former Secondary Reduction	Transformer	LT-XF-9 (0.5')	No PCBs detected.	--

Table 13: Previous Langan Investigations (White Cement Plant)

BUILDING/STRUCTURE	FEATURE	LANGAN TRENCH ID	RESULTS	POTENTIAL COCs
Boiler Blowdown Pond	Boiler Blowdown Pond	LT-23 (1' bgs)	One sample analyzed for metals. Below ESLs.	Metals, CrVI
Boiler Blowdown Pond	No. 6 (Bunker C) Fuel Oil 210,000 Gallon AST	LT-23 (1' bgs)	One sample analyzed for metals. Below ESLs.	TPH
White Kiln Pipeline and Diesel Pump	2 Former 12,000 Gallon Diesel UST	LT-24, LT-36	No lab analysis conducted due to no evidence of residual impacts observed.	TPH, VOCs
	Former White Kiln Pipeline Leak	LT-24, LT-36	No lab analysis conducted due to no evidence of residual impacts observed.	TPH
Finish Mill	Diethylene Glycol AST	--	--	--
	Acetic Acid (80%) AST	--	--	--
Southeast of White Kilns	Sewer Alignments	LT-Sewer (10' and 20'), LT-15 (2' and 12')	LT-Sewer: ORO (11 mg/kg - below ESL). No GRO, DRO, VOCs, SVOCs, or PCBs were detected. LT-15: no metals detected above ESLs.	--
Raw Mix Silos	Raw Mix Silos	--	--	--
Raw Mills	Raw Mills	--	--	--
Feed Silos	Feed Silos	--	--	--
Former Primary Crusher	Former Primary Crusher	--	--	--
Kilns	Kilns	--	--	TPH, SVOCs, Dioxins, Metals, CrVI
Clinker Silos	Clinker Silos	--	--	--
Former Dryers	Former Dryers	--	--	--
South of Finish Mills	Transformers (2)	--	No PCBs detected.	--
South of Feed Silos	Transformer	--	--	--

Table 14: Previous Langan Investigations (Grey Cement Plant)

BUILDING/STRUCTURE	FEATURE	LANGAN TRENCH ID	RESULTS	POTENTIAL COCs
North of Boiler House	Former Diesel UST 10,000 Gallons	LT-18	No laboratory analysis performed.	TPH, VOCs
Southwest of Former Finish Grind Feed Bins	Former Water Coolers	--	--	--
Crushing Storage Silos	Crushing Storage Silos	--	--	--
Former Clinker Hopper	Former Clinker Hopper	--	--	--
Boiler House	Boiler House	--	--	--
Kiln Feed Silos	Kiln Feed Silos	--	--	--
Former Motor Control Building	Former Motor Control Building	--	--	--
Former Mill Motor Building	Former Mill Motor Building	--	--	--
Former Motor Control Center 1	Former Motor Control Center 1	--	--	--
Former Motor Control Center 2	Former Motor Control Center 2	--	--	--
Former Motor Control Center 3	Former Motor Control Center 3	--	--	--
Former Grey Kiln 1 & 2	Former Grey Kiln 1 & 2	--	--	Dioxin, metals
Baghouses	Baghouses	--	--	--
Chino Substation	Chino Substation	--	--	--
Former Raw Mills	Former Raw Mills	--	--	--
Former Finish Grind Feed Bins	Former Finish Grind Feed Bins	--	--	--
Former Finish Mills	Former Finish Mills	--	--	--
Northwest corner of Grey Cement Plant	Former Diethylene Glycol AST 12,000 Gallons	LT-14	No laboratory analyses performed	TPH, VOCs
Northwest corner of Grey Cement Plant	Former Tall Oil AST 10,000 Gallons	LT-14	No laboratory analyses performed	TPH, VOCs
East of Former Motor Control Bldg.	Electrical Conduit Corridor	--	--	--
West of Former MCC-1	Former Propane Tank	--	--	--
North of former Motor Control Center 2	Former Sodium Hypochlorite AST	--	--	--
West of former sodium hypochlorite AST	Mine Air Vent	--	--	--
Former Coal Storage	Former Coal Storage	--	--	Dioxins
Well 88-1	--	--	--	--
MW-1	--	--	--	--

Table 14: Previous Langan Investigations (Grey Cement Plant)

BUILDING/STRUCTURE	FEATURE	LANGAN TRENCH ID	RESULTS	POTENTIAL COCs
North/East/South Berms	North/East/South Berms	LT-Cberm A, LT-17, LT-MW1A, LT-MW1C, LT-20, LT-19, LT-MW1B, LT-22, LT-Sberm A, LT-SbermB	No metals detected above ESLs.	--
Throughout Study Area	Transformers	LT-XF-1 (0.5')	No PCBs detected. Aroclor 1248 detected at 0.069 mg/kg)	--
		LT-XF-4 (0.5')	No PCBs detected.	--
		LT-XF-5 (0.5')	No PCBs detected.	--

Table 15: Previous Langan Investigations (Material Storage Area)

BUILDING/STRUCTURE	FEATURE	LANGAN TRENCH ID	RESULTS	POTENTIAL COCs
Southern border of study area	Dust Suppressant ASTs	LT-45	TPH and metals below ESLs.	TPH, metals
Crushed Rock Storage Area	Crushed Rock Storage Area	--	--	--
Former Gypsum Storage	Former Gypsum Storage	--	--	--
Clinker/Raw Material Storage Area	Clinker/Raw Material Storage Area	LT-5, LT-6, LT-10, LT-47	Analyzed for metals. Arsenic detected above ESL but below background.	Metals, CrVI
Eastern Berms	Eastern Berms	LT-EBermA, LT-EBerm B, LT-EBerm C, LT-EBerm D	Analyzed for metals. Arsenic detected above ESL but below background.	--

Table 16: Previous Langan Investigations (Maintenance, Administration, and Packaging)

BUILDING/STRUCTURE	FEATURE	LANGAN TRENCH ID	RESULTS	POTENTIAL COCs
West of Former Agriculture Division	Former Parking (Northwest)	--	--	TPH
Northwest of center of former Fleet Truck Parking	Former Agriculture Division	--	--	Pesticides, herbicides, metals, TPH
Northwest of center of former Fleet Truck Parking	Abandoned Substation	LT-2, LT-AS1, LT-AS2	Samples analyzed for PCBs. PCBs results were all ND.	PCBs
East of Transportation Office	Former Fleet Truck Parking	LT-42	1 sample at 1'bgs analyzed for Metals. As (3.7 mg/kg) above ESL but below background.	Metals, TPH, CrVI
Transportation Office	Transportation Office	--	--	ACM, LBP, MUW
Former Garage Salvage Yard	Former Gasoline UST 10,000 gallons	ELB-1 Samples at 5', 10', 15', 20', 25', 30'	Analyzed for TPH. 2 samples (10' and 15') reported 5.9 and 5.8 mg/kg, respectively.	TPH, VOCs, BTEX, lead
Garage and Administrative Building	Washrack Discharge Point	--	--	TPH
Garage and Garage Storeroom	Former 3-Stage Clarifier	--	--	TPH
	Former Waste Oil AST 250 Gallons	--	--	--
Garage and Garage Storeroom	Former Diesel UST 10,000 Gallons	LT-8 (10.5') - TPH, VOCs	ND for TPH and VOCs.	TPH, VOCs
	Former Diesel UST 1,000 gallons	--	--	TPH, VOCs
	Former Gasoline UST 2,000 gallons	--	--	BTEX, TPH, organic lead, VOCs

Table 16: Previous Langan Investigations (Maintenance, Administration, and Packaging)

BUILDING/STRUCTURE	FEATURE	LANGAN TRENCH ID	RESULTS	POTENTIAL COCs
Crane Storage	Former Waste Oil UST 550 Gallons	LT-35 (approx. 21' bgs)	No visual or PID indications of impacts observed. No laboratory analysis conducted.	VOCs, TRPH, SVOCs, PAHs
Former Spray Pond	Former Suction Sump	LT-11 (5' and 15' bgs)	2 samples (5' and 15') analyzed for TPH, metals, PCBs. TPH-ORO detected < 33 mg/kg (ESL) No metals elevated relative to ESLs. No PCBs detected.	Metals, CrVI, TPH, PCBs
Northeast of former spray pond	Former Sag Pond	LT-9 (4' and 8' bgs samples) Depth of trench 20' bgs	2 soil samples analyzed for TPH, metals, PCBs, SVOCs, and VOCs. TPH: 4' (1700 mg/kg) 8' (950 mg/kg) Metals: As and Cr below background No SVOCs or VOC detected above residential ESLs.	TPH, Metals, CrVI, PCBs, SVOCs, VOCs
Northeast of former spray pond	Former Sag Pond	LT-9 (4' and 8' bgs samples) Depth of trench 20' bgs	2 soil samples analyzed for TPH, metals, PCBs, SVOCs, and VOCs. TPH: 4' (1700 mg/kg) 8' (950 mg/kg) Metals: As and Cr below background No SVOCs or VOC detected above residential ESLs.	TPH, Metals, CrVI, PCBs, SVOCs, VOCs
Former Fleet Truck Parking	Settling Areas	LT-42	1 sample at 1'bgs analyzed for Metals. As (6.3 mg/kg) above ESL but below background.	--
Former 6M gallon tank/reservoir	Settling Areas	LT-43	1 sample at 1'bgs analyzed for Metals. As (3.7 mg/kg) above ESL but below background.	Metals

Table 16: Previous Langan Investigations (Maintenance, Administration, and Packaging)

BUILDING/STRUCTURE	FEATURE	LANGAN TRENCH ID	RESULTS	POTENTIAL COCs
Former Crane/ former Clinker Hoppers	Settling Areas	LT-40	1 sample at 1'bgs analyzed for Metals. As (14 mg/kg) above ESL but below background. Pb (200 mg/kg) above residential ESL.	Metals
Former Power House	Settling Areas	LT-39 (1')	1 sample at 1'bgs analyzed for Metals. Metals below ESLs.	Metals
Southwest of Former Spray Pond	Hazardous Waste Storage Pad	LT-12 (4' and 12' sample collected and composited)	Analyzed for metals and PCBs. As (5.9 mg/kg) above ESL but below background levels. Remaining below ESLS. PCBs were ND.	TPH, metals, VOCs
Stormwater Retention Basin	Stormwater Retention Basin	LT-46, CB-TP-1, 2, 3 (~10' bgs)	Analyzed for metals and TPH. No TPH detected above screening levels. As above ESL but below background levels.	TPH, metals
East of former 6M gallon tank	Crestmore Substation	--	--	--
Crestmore Substation	Former Diesel AST 1,000 Gallons	--	--	TPH
North of former boiler shop	6,000,000 Gallon Bunker C Fuel Oil UST	--	--	TPH, PAHs, VOCs
6,000,000 Bunker C Fuel Oil Tank	Former Reservoir	--	--	Metals, TPH, CrVI
NE of former garage salvage yard	Well 60-1	--	--	
Former Parking SE of 6M gallon tank	Former 1 Unleaded Gasoline/ 1 Diesel AST 2,000 Gallons each	--	--	TPH, BTEX
West of the Grey Silos	Former Propane Tank	--	--	

Table 16: Previous Langan Investigations (Maintenance, Administration, and Packaging)

BUILDING/STRUCTURE	FEATURE	LANGAN TRENCH ID	RESULTS	POTENTIAL COCs
Former Material Yard	Former Material Yard	--	--	TPH, VOCs
Former Electric Shop	Former Electric Shop	--	--	TPH, VOCs
Former Boiler Shop	Former Boiler Shop	--	--	
Former Machine Shop	Former Machine Shop	--	--	
Former Repair Shop	Former Repair Shop	--	--	
Stores	Stores	--	--	
Stockhouse	Stockhouse	--	--	No evidence of chemicals or hazardous materials associated with these areas.
Packhouse	Packhouse	--	--	
Truck Loading	Truck Loading	--	--	
Compressor	Compressor	--	--	
Former Power House	Former Power House	--	--	TPH, VOCs, metals
Tube Mills	Tube Mills	--	--	
Crane	Crane	--	--	Metals
Tunnel	Tunnel	--	--	
Two Plastic Silos	Two Plastic Silos	--	--	--
Plastic Silo	Plastic Silo	--	--	--
White Silos	White Silos	--	--	--
Grey Silos (2)	Grey Silos (2)	--	--	--
Silo (north of former powerhouse)	Silo (north of former powerhouse)	--	--	--
Throughout study area	Transformers	LT-XF-2 (0.5')	No PCBs detected.	--
		LT-XF-3 (0.5')	No PCBs detected.	--
		LT-XF- 6 (0.5')	No PCBs detected.	--
		LT-XF-7 (0.5')	No PCBs detected.	--

Table 17: Previous Langan Investigations (Vacant Land)

BUILDING/STRUCTURE	FEATURE	LANGAN TRENCH ID	RESULTS	POTENTIAL COCs
Northern Berms	Northern Berms	LT-Nberm A, LT-NBermB	Arsenic detected above ESLs but below background concentrations.	--
North	Northern Monitoring Well	November/December 2016, March 2017, and May 2017 sampling events. Analyzed for metals and VOCs	CrIV concentrations remained below MCL (10 ug/L). Only trans-1,2-dichloroethene detected below MCL at 2.1 ug/L (12/2016).	--
NW corner of northern parcel	2 Former Production Wells (NW)	--	--	--
Background Sample	Background Sample	LT-4	Metals did not exceed ESLs.	--

Table 18 - Summary of Analytical Results - Northern Parcel
Agua Mansa Commerce Park
CKD Samples
Confidential, Attorney Work Product, Privileged Attorney - Client Communication

Sample No.	Location	Sample Description	Title 22 Metals																EPA Method 7199 (mg/kg)
			EPA Method 6010/7000 (mg/kg)																
			Antimony	Silver	Arsenic	Barium	Beryllium	Cadmium	Chromium(III), Insoluble Salt	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Thallium	Vanadium	Zinc	Mercury	Hexavalent Chromium
EPA RSL - Residential			31	390	0.68	15000	160	71	--	23	3100	400	390	670	390	0.78	390	23000	11	0.3
EPA RSL - Industrial			470	5800	3.0	220000	2300	980	--	350	47000	800	5800	8100	5800	12	5800	350000	46	6.3
RWQCB ESL - Residential			31	390	0.067	15000	150	39	--	23	3100	80	390	820	390	0.78	390	23000	13	0.3
RWQCB ESL - Industrial			467	5840	0.305	217000	2210	578	--	347	46700	320	5840	11100	5840	11.7	5830	350000	187	6.2
DTSC SL - Residential			--	390	0.11	--	15	5.2	36000	--	--	80	--	490	--	--	390	--	1	--
DTSC SL - Industrial			--	1500	0.36	--	210	7.3	170000	--	--	320	--	3100	--	--	1000	--	4.5	--
Northern Parcel																				
CKDNP-1	Raw Material/Clinker Storage Area	Brn silty fine-grain sand/CKD mixture with gravel	< 3.0	< 2.0	**5.8**	630	< 1.0	< 2.0	2.6	< 2.0	1.2	< 3.0	< 5.0	< 2.0	< 5.0	< 2.0	5.4	77	**13**	< 0.2
CKDNP-2	Raw Material/Clinker Storage Area	Brn silty fine-grain sand/CKD mixture with gravel	< 3.0	< 2.0	**6.7**	76	< 1.0	< 2.0	46	3.3	14	29	< 5.0	11	< 5.0	< 2.0	21	77	< 0.10	2.5
CKDNP-3	South end of Clinker Storage Area	Brn silty fine-grain sand/CKD mixture with gravel	< 3.0	< 2.0	**7.4**	81	< 1.0	< 2.0	26	2.8	10	< 3.0	< 5.0	9.1	< 5.0	< 2.0	23	30	< 0.10	1.7
CKDNP-4	East end of former Grey Kiln	small pile of CKD mixture beneath klin	< 3.0	< 2.0	**14**	26	< 1.0	7.1	55	2.2	9.8	200	5	12	12	3	16	52	< 0.10	**17**
CKDNP-5	Berm east side of property, east of Grey Kiln	CKD with Brn silty fine-grain sand with gravel	< 3.0	< 2.0	**11**	63	< 1.0	5.9	14	3	8.2	64	< 5.0	7.1	< 5.0	< 2.0	23	33	< 0.10	1.4
CKDNP-6	Berm outcrop east side of property, north of Wet Weather Quarry	CKD Lense	< 3.0	< 2.0	**11**	56	< 1.0	5.1	57	4.2	11	100	< 5.0	5.6	6.3	< 2.0	19	47	< 0.10	**10**
CKDNP-7	Bottom of Wet Weather Quarry	Brn silty fine-grain sand/CKD mixture with gravel	< 3.0	< 2.0	**15**	100	< 1.0	6.7	14	< 2.0	6.1	150	< 5.0	5	< 5.0	< 2.0	15	56	< 0.10	< 0.2
CKDNP-8	Top of Wet Weather Quarry south slope facing north	CKD with Brn silty fine-grain sand	< 3.0	< 2.0	**14**	70	< 1.0	**8**	22	2.2	7.4	190	< 5.0	6.1	< 5.0	< 2.0	16	70	< 0.10	1.4
CKDNP-9	South of Clay Storage Bldg	Brn silty fine-grain sand/CKD mixture	< 3.0	< 2.0	**5.8**	790	< 1.0	< 2.0	18	3.2	8.9	16	< 5.0	8.6	< 5.0	< 2.0	21	120	0.77	1.5
CKDNP-10	Material from White Kiln Baghouse	Processed Clinker with potential CKD	< 3.0	4.5	**12**	400	< 1.0	4.6	5.3	< 2.0	3.6	220	15	2	12	**15**	6.8	190	**5**	1.6

Notes:
CKD - Cement Kiln Dust
NP - Northern Parcel
Above Industrial SLs
Above EPA and RWQCB industrial SLs

Table 19: Demolition/Decon Plan Features

Study Area	BUILDING/STRUCTURE	FEATURE	Langan Rationale	Proposed Sampling During Decon/Demolition
SMC	Northwest corner of surface, mining, and crushing area	Former Secondary Reduction	No known source. Addressed in decon/demo and Soil Management Plan (SMP).	
SMC	East of Former Secondary Reduction	Transformer	No known source. Addressed in decon/demo and SMP.	
WCP	Former Boiler Blowdown Pond	Former No. 6 Fuel Oil Tank	Cleaned and decommissioned in 2014. Addressed in decon/demo and SMP.	X
WCP	Finish Mill	Diethylene Glycol AST	Cleaned and decommissioned in 2014. Addressed in decon/demo and SMP.	
WCP	Finish Mill	Acetic Acid (80%) AST	Cleaned and decommissioned in 2014. Addressed in decon/demo and SMP.	
WCP	Southeast of White Kilns	Sewer Alignments	Previous investigation identified no impacts. Addressed in decon/demo and SMP.	
WCP	Raw Mix Silos	Raw Mix Silos	No known source. Addressed in decon/demo and SMP.	
WCP	Raw Mills	Raw Mills	No known source. Addressed in decon/demo and SMP.	
WCP	Feed Silos	Feed Silos	No known source. Addressed in decon/demo and SMP.	
WCP	Clinker Silos	Clinker Silos	No known source. Addressed in decon/demo and SMP.	
WCP	Former Dryers	Former Dryers	No known source. Addressed in decon/demo and SMP.	
WCP	South of Finish Mills	Transformers (2)	No known source. Addressed in decon/demo and SMP.	
WCP	South of Feed Silos	Transformer	No known source. Addressed in decon/demo and SMP.	
GCP	West of Tall oil Tank	Former Water Coolers	No known source. Addressed in decon/demo and SMP.	X
GCP	Crushing Storage Silos	Crushing Storage Silos	No known source. Addressed in decon/demo and SMP.	
GCP	Former Clinker Hopper	Former Clinker Hopper	No known source. Addressed in decon/demo and SMP.	
GCP	Boiler House	Boiler House	No known source. Addressed in decon/demo and SMP.	
GCP	Kiln Feed Silos	Kiln Feed Silos	No known source. Addressed in decon/demo and SMP.	
GCP	Former Motor Control Building	Former Motor Control Building	No known source. Addressed in decon/demo and SMP.	
GCP	Former Mill Motor Building	Former Mill Motor Building	No known source. Addressed in decon/demo and SMP.	
GCP	Former Motor Control Center 1	Former Motor Control Center 1	No known source. Addressed in decon/demo and SMP.	
GCP	Former Motor Control Center 2	Former Motor Control Center 2	No known source. Addressed in decon/demo and SMP.	
GCP	Former Motor Control Center 3	Former Motor Control Center 3	No known source. Addressed in decon/demo and SMP.	
GCP	Chino Substation	Chino Substation	No known source. Addressed in decon/demo and SMP.	X
GCP	Former Raw Mills	Former Raw Mills	No known source. Addressed in decon/demo and SMP.	
GCP	Former Finish Grind Feed Bins	Former Finish Grind Feed Bins	No known source. Addressed in decon/demo and SMP.	
GCP	Former Finish Mills	Former Finish Mills	No known source. Addressed in decon/demo and SMP.	
GCP	East of Former Motor Control Bldg.	Electrical Conduit Corridor	No known source. Addressed in decon/demo and SMP.	
GCP	West of Former MCC-1	Former Propane Tank	Addressed in decon/demo and SMP.	
GCP	North of former Motor Control Center 2	Former Sodium Hypochlorite AST	Decommissioned and removed. Addressed in decon/demo and SMP.	
GCP	West of former sodium hypochlorite AST	Mine Air Vent	No known source. Address in decon/demo and SMP.	
MSA	Crushed Rock Storage Area	Crushed Rock Storage Area	No known source. Addressed in decon/demo and SMP.	
MSA	Former Gypsum Storage	Former Gypsum Storage	No known source. Addressed in decon/demo and SMP.	
MAP	Northwest of center of former Fleet Truck Parking	Abandoned Substation	No previous indication of impacts. Addressed in decon/demo and SMP.	
MAP	Transportation Office	Transportation Office	No known source. Addressed in decon/demo and SMP.	

Table 19: Demolition/Decon Plan Features

Study Area	BUILDING/STRUCTURE	FEATURE	Langan Rationale	Proposed Sampling During Decon/Demolition
MAP	Garage and Garage Storeroom	Former 3-Stage Clarifier	Addressed in decon/demo.	X
MAP	Garage and Garage Storeroom	Former Waste Oil AST 250 Gallons	No visual evidence of impacts from prior investigation. Addressed in decon/demo and SMP.	
MAP	Former Spray Pond	Former Spray Pond	Addressed in decon/demo and SMP.	X
MAP	Northeast of Former Spray Pond	Former Sag Pond	Addressed in decon/demo and SMP.	X
MAP	Former 6M gallon tank/reservoir	Settling Areas	Addressed in decon/demo and SMP.	
MAP	Former Crane/ former Clinker Hoppers	Settling Areas	Addressed in decon/demo and SMP.	
MAP	Former Power House	Settling Areas	Addressed in decon/demo and SMP.	
MAP	Crestmore Substation	Former Diesel AST 1,000 Gallons	No visual evidence of impacts from prior investigation. Addressed in decon/demo and SMP.	
MAP	6,000,000 Bunker C Fuel Oil Tank	Former Reservoir	Addressed in decon/demo and SMP	X
MAP	West of the Grey Silos	Former Propane Tank	Addressed in decon/demo and SMP.	
MAP	Former Electric Shop	Former Electric Shop	Addressed in decon/demo and SMP.	X
MAP	Former Boiler Shop	Former Boiler Shop	Address in decon/demo and SMP. Evaluate soil vapor in general vicinity.	X
MAP	Former Machine Shop	Former Machine Shop	Addressed in decon/demo and SMP.	X
MAP	Former Repair Shop	Former Repair Shop	Addressed in decon/demo and SMP.	X
MAP	Former Foundary Shop	Former Foundary Shop	Addressed in decon/demo and SMP.	X
MAP	Stores	Stores	Address in decon/demo and SMP.	
MAP	Stockhouse	Stockhouse	Address in decon/demo and SMP.	
MAP	Packhouse	Packhouse	Address in decon/demo and SMP.	
MAP	Truck Loading	Truck Loading	Address in decon/demo and SMP.	
MAP	Compressor	Compressor	Address in decon/demo and SMP.	
MAP	Tunnel	Tunnel	Address in decon/demo and SMP.	
MAP	Two Plastic Silos	Two Plastic Silos	Address in decon/demo and SMP.	
MAP	Plastic Silo	Plastic Silo	Address in decon/demo and SMP.	
MAP	White Silos	White Silos	Address in decon/demo and SMP.	
MAP	Grey Silos (2)	Grey Silos (2)	Address in decon/demo and SMP.	
MAP	Silo (north of former powerhouse)	Silo (north of former powerhouse)	Address in decon/demo and SMP.	
MAP	Throughout study area	Transformers	No known source. Addressed in decon/demo and SMP.	
Site Wide	Former Oil Roads	Oil Roads	No known source. Addressed in decon/demo and SMP.	
Site Wide	Storm Drains	Storm Drains	No known source. Addressed in decon/demo and SMP.	

Note: X - Represents sampling to be conducted during decon/demolition phase. Specific number of samples and analytes will be determined after the SAWP is completed.

Table 27: Proposed Investigation Plan Analytical

STUDY AREA	BLDG/STRUCTURE	FEATURE	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	No. Samples	Analytical Scheme										
										TPH	CrVI	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Pesticides/ herbicides	TPH as 8260B	VOCs as 8260B
SMC	Former Iron Ore Storage	Former Iron Ore Storage	SMC-LT-1	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')								
SMC	Wet Weather Quarry	Wet Weather Quarry	--	--	--	SMC-SB-1	1	20	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')								
			--	--	--	SMC-SB-2	1	20			3 (1', 5', 10')	3 (1', 5', 10')								
SMC	South of Secondary Reduction	South of Secondary Reduction	SMC-LT-2	1	20				5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')				
SMC	Southeast of Secondary Reduction	Southeast of Secondary Reduction	SMC-LT-3	1	20				5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')				
SMC	Northwest of Wet Weather Quarry	Northwest of Wet Weather Quarry	SW-19	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			
WCP	Boiler Blowdown Pond	Boiler Blowdown Pond	--	--	--	WCP-SB-1	1	20	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')	3 (5', 10', 20')							
WCP	South of Boiler Blowdown Pond	Two Former Diesel USTs 12,000 Gallons	--	--	--	WCP-SG-1	1	15	2 (5' & 15')										2 (5' & 15')	2 (5' & 15')
						WCP-SG-2	1	15	2 (5' & 15')										2 (5' & 15')	2 (5' & 15')
WCP	Kilns	Kilns	WCP-LT-1	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')	2 (1' & 5')			
WCP			WCP-LT-2	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')		3 (1', 5', 10')				
WCP			WCP-LT-3	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')				
WCP			WCP-LT-4	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')	2 (1' & 5')			
GCP	Southwest of Former Finish Grind Feed Bins	Former Water Coolers	GCP-LT-1	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')								
GCP	Former Grey Kiln 1 & 2	Former Grey Kiln 1 & 2	GCP-LT-2	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')	2 (1' & 5')			
			GCP-LT-3	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')				

Table 27: Proposed Investigation Plan Analytical

STUDY AREA	BLDG/STRUCTURE	FEATURE	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	No. Samples	Analytical Scheme										
										TPH	CrVI	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Pesticides/ herbicides	TPH as 8260B	VOCs as 8260B
GCP	Baghouses	Baghouses	GCP-LT-4	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')				
GCP	Northwest corner of Grey Cement Plant	Former Diethylene Glycol AST 12,000 Gallons	GCP-LT-5	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')		2 (1' & 5')			
GCP	Former Coal Storage	Former Coal Storage	GCP-LT-6	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')				
GCP	North of Former Boiler House	Former Diesel UST 10,000 Gallons				GCP-SG-1	1	15	2 (5' & 15')										2 (5' & 15')	2 (5' & 15')
GCP	North/East/South Berms	North/East/South Berms	GCP-LT-7	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')	2 (1' & 5')			
			GCP-LT-8	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')				
			GCP-LT-9	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')				
			GCP-LT-10	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')	2 (1' & 5')			
			GCP-LT-11	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')	2 (1' & 5')			
GCP	East Berm	East Berm	SW-16	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			
GCP	North of Former Boiler House	Former Diesel UST 10,000 Gallons	SW-17	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			
MSA	Eastern Berms	Eastern Berms	MSA-LT-1	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')					2 (1' & 5')			
			MSA-LT-2	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')					2 (1' & 5')			
			MSA-LT-3	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')					2 (1' & 5')			
			MSA-LT-4	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')					2 (1' & 5')			
MSA	Raw Material Storage Bay	Raw Material Storage Bay	MSA-LT-5	1	20					3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')					
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SW-8	5 composite	5	--	--	--	2 (1' & 5')		2 (1' & 5')	2 (1' & 5')								

Table 27: Proposed Investigation Plan Analytical

STUDY AREA	BLDG/STRUCTURE	FEATURE	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	No. Samples	Analytical Scheme										
										TPH	CrVI	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Pesticides/ herbicides	TPH as 8260B	VOCs as 8260B
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SW-9	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SW-10	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SW-13	5 composite	5	--	--	--	2 (1' & 5')		2 (1' & 5')	2 (1' & 5')								
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SW-14	5 composite	5	--	--	--	2 (1' & 5')		2 (1' & 5')	2 (1' & 5')								
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SW-15	5 composite	5	--	--	--	2 (1'& 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			
MAP	West of Former Agriculture Division	Former Parking (Northwest)	MAP-LT-1	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')							2 (1' & 5')		
MAP	East of Transportation Office	Former Fleet Truck Parking	MAP-LT-2	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')					
MAP	Former Garage Salvage Yard	Former Gasoline UST 10,000 gallons	--	--	--	MAP-SG-1	1	15	2 (5' & 15')										2 (5' & 15')	2 (5' & 15')
MAP	Garage and Administrative Building	Washrack Discharge Point	MAP-LT-3	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')	3 (5', 10', 20')							
MAP	Garage and Garage Storeroom	Former Diesel UST 1,000 gallons	--	--	--	MAP-SG-2	1	15	2 (5' & 15')										2 (5' & 15')	2 (5' & 15')
MAP	Garage and Garage Storeroom	Former Diesel UST 10,000 gallons	--	--	--	MAP-SG-3	1	15	2 (5' & 15')										2 (5' & 15')	2 (5' & 15')
MAP	Southwest of Former Spray Pond	Hazardous Waste Storage Pad	--	--	--	MAP-SG-4	1	15	2 (5' & 15')										2 (5' & 15')	2 (5' & 15')
MAP	Crane Storage	Former Waste Oil UST 550 Gallons	--	--	--	MAP-SB-1	1	20	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')	3 (5', 10', 20')	3 (1', 5', 10')						
						MAP-SG-7	1	15	2 (5' & 15')										2 (5' & 15')	2 (5' & 15')
MAP	North of Former Boiler	6,000,000 Gallon	--	--	--	MAP-SB-2	1	50	5 (1', 5', 10', 15', 20', 25', 30', 35', 40', 45', 50')	3 (10', 30', 50')		3 (10', 30', 50')	3 (10', 30', 50')	3 (10', 30', 50')	3 (1', 5', 10')					

Table 27: Proposed Investigation Plan Analytical

STUDY AREA	BLDG/STRUCTURE	FEATURE	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	No. Samples	Analytical Scheme										
										TPH	CrVI	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Pesticides/ herbicides	TPH as 8260B	VOCs as 8260B
MAP	Former Boiler Shop	Bunker C Fuel Oil UST	--	--	--	MAP-SB-3	1	50	5 (1', 5', 10', 15', 20', 25', 30', 35', 40', 45', 50')	3 (10', 30', 50')		3 (10', 30', 50')	3 (10', 30', 50')	3 (10', 30', 50')	3 (1', 5', 10')					
MAP	Former Material Yard	Former Material Yard	--	--	--	MAP-SG-5-SW-20	1 5 composite	15 5	2 (5' & 15') 2 (1' & 5')	2 (5' & 15') 2 (1' & 5')	3 (1', 5', 10') 2 (1' & 5')	2 (5' & 15') 2 (1' & 5')	2 (5' & 15')				2 (1' & 5')		2 (5' & 15')	2 (5' & 15')
MAP	Former Boiler Shop	Former Boiler Shop	--	--	--	MAP- SG-6	1	15	2 (5' & 15')	2 (5' & 15')	3 (1', 5', 10')	2 (5' & 15')	2 (5' & 15')							2 (5' & 15')	2 (5' & 15')
MAP	Former Power House	Former Power House	MAP-LT-4	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')	3 (5', 10', 20')							
MAP	Tube Mills	Tube Mills	MAP-LT-5	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')	3 (5', 10', 20')							
MAP	Crane	Crane	MAP-LT-6	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')								
MAP	Northwest of center of former Fleet Truck Parking	Former Agriculture Division	SW-3	5 composite	5	--	--	--	2 (1' & 5')	3 (5', 10', 15')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			
MAP	East of Former Fleet Truck Parking	East of Former Fleet Truck Parking	SW-11	5 composite	5	--	--	--	2 (1' & 5')	3 (5', 10', 15')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			
MAP	North of Former Boiler Shop	6,000,000 Gallon Bunker C Fuel Oil UST	SW-12	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			
MAP	South of Former Boiler Shop	South of Former Boiler Shop	SW-18	5 composite	5	--	--	--	2 (1' & 5')		2 (1' & 5')	2 (1' & 5')								
VL	Northern Berms	Northern Berms	VL-LT-1	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')								
VL	NA	Background Analysis	VL-LT-2	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')				
VL	NA	Background Analysis	VL-LT-3	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')				
VL	NW Corner of Northern Parcel	NW Corner of Northern Parcel	SW-1	5 composite	5	--	--	--	2 (1' & 5')		2 (1' & 5')	2 (1' & 5')								
VL	NW Corner of Northern Parcel	NW Corner of Northern Parcel	SW-2	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			
VL	Northern Parcel	Northern Parcel	SW-4	5 composite	5	--	--	--	2 (1' & 5')		2 (1' & 5')	2 (1' & 5')				2 (1' & 5')				
VL	Northern Parcel	Northern Parcel	SW-5	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')				2 (1' & 5')	2 (1' & 5')			

Table 27: Proposed Investigation Plan Analytical

STUDY AREA	BLDG/STRUCTURE	FEATURE	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	No. Samples	Analytical Scheme										
										TPH	CrVI	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Pesticides/ herbicides	TPH as 8260B	VOCs as 8260B
VL	Northern Parcel	Northern Parcel	SW-6	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')				2 (1' & 5')	2 (1' & 5')			
VL	Northern Berms	Northern Berms	SW-7	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			

APPENDIX C

Health and Safety Plan

HEALTH AND SAFETY PLAN

AGUA MANSA COMMERCE PARK
JURUPA VALLEY, CALIFORNIA

Prepared By:

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515 South Flower Street Suite 2860
Los Angeles, CA 90071



Brad A. McCardell
Senior Project Manager

June 1, 2018

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TABLE OF CONTENTS

Page No.

1.0 INTRODUCTION 1
1.1 General 1
1.2 Site Location and Background 1
1.3 Description of Tasks 2
2.0 IDENTIFICATION OF KEY PERSONNEL/HEALTH AND SAFETY PERSONNEL 3
2.1 Langan Project Manager (PM): Phone 805-708-7200 3
2.2 Langan Corporate Health and Safety Manager (HSM): Phone 215-491-6500 3
2.3 Langan Health and Safety Officer (HSO): Phone 949-292-6623 4
2.4 Subcontractor Responsibilities 4
3.0 TASK/OPERATION SAFETY AND HEALTH RISK ANALYSES 5
3.1 Chemical Exposure Hazards 6
3.2 Biological Hazards 6
3.3 Physical Hazards 8
3.4 Task-By-Task Risk Analysis 9
4.0 PERSONNEL TRAINING 9
4.1 Basic Training 9
4.2 Site-Specific Training 10
4.3 Safety Briefings 10
4.4 Tailgate Meetings 10
5.0 MEDICAL SURVEILLANCE 11
5.1 Fitness for Duty 11
6.0 AIR MONITORING 11
6.1 General 11
6.2 Instrumentation and Action Levels 11
7.0 PERSONAL PROTECTIVE EQUIPMENT (PPE) 12
7.1 Levels of Protection 12
7.2 Limitations of PPE 13
8.0 Emergency Recognition and Prevention 13
8.1 Fires and Explosions 13
8.2 Chemical Exposures 14
8.3 Physical Injury 15

9.0 SITE CONTROL 15
9.1 Site Communications Plan 15
9.2 Work Zones 15
9.3 The Buddy System 16
9.4 Nearest Medical Assistance 16
9.5 Safe Work Practices 16
10.0 EMERGENCY RESPONSE 17
10.1 General 17
10.2 Responsibilities 17
10.3 Evacuation 17
10.4 Emergency Contacts/Notification System 18
10.5 Emergency Medical Treatment 18
10.6 Fire or Explosion or Jobsite Evacuation: 19
10.7 Adverse Weather Conditions 19
10.8 Earthquake Response 19
10.9 Documentation/Investigation 20
11.0 CONFINED SPACE ENTRY 20
12.0 SUBSURFACE UTILITIES 20
13.0 HASP APPROVALS 21
14.0 HASP COMPLIANCE AGREEMENTS 22

LIST OF TABLES

Table 1 Task Risk Analyses
Table 2 Summary of Monitoring Equipment
Table 3 Instrumentation Action Levels
Table 4 Emergency Notification List*

LIST OF FIGURES

Figure 1 Site Location Map
Figure 2 Route to Hospital (map with directions)*
Figure 3 Standing Orders*

LIST OF APPENDICES

Appendix A Jobsite Safety Inspection Checklist
Appendix B Job Safety Analysis
Appendix C Safe Drum Handling Techniques
Appendix D Heat Stress
Appendix E Cold Exposure
Appendix F Jobsite Safety Meeting
Appendix G Employee Exposure/Injury Incident Report

* Items to be posted prominently on site, or made readily available to all personnel at all times

1.0 INTRODUCTION

1.1 General

This Health and Safety Plan (HASP) has been developed by Langan Engineering and Environmental Services (Langan) to assure measures are taken to control risks and hazards identified as part of the work scope and to comply with Occupational Safety and Health Administration's (OSHA's) Standards (29 CFR 1910.120), Safety and Health Regulations for Construction (29 CRF 1926.65), Hazardous Waste Operations and Emergency Response, Hazardous Communication (HAZCOM), and other applicable regulatory, local, Langan, and client requirements. The highest standard shall be used when more than one procedure applies.

This HASP addresses the foreseeable activities associated with site investigation activities. This HASP is to be implemented by Langan personnel while on site. Compliance with this HASP is required of all Langan personnel and third parties who enter this area of site operations. The content of this HASP may change or undergo revisions based upon additional information made available to site personnel, monitoring results, or changes in the scope of work. Changes to the work scope or new hazards shall require a review of the HASP and any changes proposed must be reviewed by Health and Safety (H&S) staff and are subject to the approval of the Langan HSC.

1.2 Site Location and Background

The Site is approximately 206 acres located at 1500 Rubidoux Boulevard. The approximate location is shown on Figure 1. The Site includes 13 parcels in Jurupa Valley, California with the Assessor's Parcel Numbers (APNs) listed below:

APN #
175-200-001 (Portion)
175-200-002
175-200-003
175-200-004

APN#
175-170-035
175-170-036
175-170-040
175-170-041 (Portion)

175-200-005
175-200-007
175-200-008
175-200-009

175-180-001

The Site is bound to the west by Union Pacific Railroad (UPRR) track and Rubidoux Boulevard, to the north by El Rivino Road, to the south by three inactive quarries and Agua Mansa Road, and to the east by industrial development and Hall Avenue. As shown on Figure 1, the northwestern section of the Site contains undeveloped land and unpaved roads, while the northern section contains undeveloped land and a paved entrance road with a guard shack.

The western section encompasses an entrance road, along with storage silos, a warehouse (Pack House), part of the former white cement manufacturing plant, and a one to two-story administration buildings (Truck Garage, Transportation Office, Storehouse, and Garage). The eastern section contains the raw materials storage area and the remnants from the Gray Cement Plant (primarily the support structures for the rotatory klins).

1.3 Description of Tasks

This HASP pertains to work proposed in the environmental and geotechnical work plans for the subject Site, which include the following tasks:

Task #1 - Boring and test-pit location mark-out
Task #2 - Geophysical survey
Task #3 - Drilling and geotechnical testing
Task #4 - Test pit excavation
Task #5 - Soil logging and sampling
Task #6 - Backfilling soil borings and test pits
Task #7 - Waste handling and disposal

A job safety analysis (JSA) must be reviewed by the field crew and marked-up in the field for each of the Tasks above.

2.0 IDENTIFICATION OF KEY PERSONNEL/HEALTH AND SAFETY PERSONNEL

The following briefly describes the H&S designations and general responsibilities which may be employed for the project. The titles have been established to accommodate the Site needs and requirements in order to ensure the safe conduct of onsite work. Overall, the management of the day-to-day activities concerning this site and implementation of this HASP in the field is the responsibility of the site Health and Safety Officer (HSO). Assistance in the implementation of this HASP can also be obtained from the Langan Health and Safety Coordinator (HSC). Detailed roles and responsibilities are as follows:

2.1 Langan Project Manager (PM): Phone: 909-771-8217

The Langan Project Manager (PM) is Brad McCardell. His responsibilities include:

- Ensuring that this HASP is developed, approved, and communicated to field staff and work has been property permitted/authorized prior to on-site activities commencing;
- Verify qualifications, training; and competencies of Langan and subcontractor staff;
- Recognize hazards associated with the work and possess the leadership skills to effectively stop work, encourage others to stop work and conduct last minute risk assessments.
- Ensuring that all the tasks in the project are adequately planned and controlled so that they can are performed in a manner consistent with Langan's comprehensive Health and Safety Program and this HASP.

2.2 Langan Corporate Health and Safety Manager (HSM): Phone 215-491-6500

The Langan Corporate Health and Safety Manager (HSM) is Tony Moffa. His responsibilities include:

- Serving as a resource in the development and implementation of this HASP;

- Reviewing and updating the corporate Health and Safety Program;
- Sharing lessons learned and relevant safety alerts;
- Providing guidance and serving as a resource to the Langan Health and Safety Officer (HSO);
- Ensuring training requirements are satisfied in a timely manner;
- Ensuring medical evaluations of Langan personnel are current; and
- Maintaining all records on personnel (medical evaluation results, training and certifications, accident investigation results, etc.).

2.3 Langan Health and Safety Officer (HSO): Phone: 714-616-0163

The Langan Health and Safety Officer (HSO) is Neil Shukla. The HSO responsibilities include:

- Participating in the development and implementation of this HASP;
- Conducting Jobsite Safety Inspections (Appendix A) and revising as needed based on site conditions. Helping to select proper PPE (Personal Protective Equipment) and completing periodic inspections of site personnel;
- Ensuring that PPE is properly stored and maintained;
- Controlling entry into and exit from the contaminated areas or zones of the site;
- Confirming each team member's suitability for work based on a current physician's recommendation;
- Monitoring the work parties for signs of stress, such as heat stress, fatigue, and if applicable, cold exposure;
- Monitoring site conditions and hazards; and
- Training site personnel in emergency procedures, evacuation routes, and the ensuring emergency telephone numbers of the ambulance, local hospital, poison control center, fire department, and police department are adequately displayed.

2.4 Subcontractor Responsibilities

Each subcontractor shall develop and implement a separate HASP, which identifies a lead individual responsible for H&S compliance for each of their employees, lower-tier subcontractors, and consultants. The subcontractor's HASP

will be, at a minimum, as stringent as this Langan HASP. The subcontractor must be familiar with and abide by the requirements outlined in their own HASP. A subcontractor may use Langan's HASP as guidance; however, each subcontractor must create and submit a separate HASP to Langan. Additionally, subcontractors must:

- Ensure their employees are trained in the use of all appropriate PPE for the tasks involved;
- Notify Langan of any hazardous material brought onto the jobsite, the hazards associated with the material, and must provide a Safety Data Sheet (SDS) for the material;
- Have knowledge of, understand, and abide by all current federal, state, and local health and safety regulations pertinent to the work;
- Ensure their employees have received current training as required to complete the work;
- Ensure their employees have been medically cleared to work in Hazardous Waste Sites and to wear a respirator, if necessary;
- Ensure that its employees have been briefed on this HASP and have signed the Compliance Agreement (Section 14.0) of the Langan HASP.

3.0 TASK/OPERATION SAFETY AND HEALTH RISK ANALYSES

This section provides an assessment of the general hazards that may be encountered during fieldwork activities at the site through a task-by-task risk analysis. The Hierarch of Control used to address all identified hazards/exposures includes:

1. Elimination – eliminate the exposure or hazard to the extent possible
2. Substitution – substitute items (equipment, materials, tools) to reduce the hazard
3. Engineering – engineer out the risk, hazard, or exposure
4. Procedural – control the risk with a procedure or administrative control
5. PPE – Use personal protective equipment as the last line of defense

Potential hazards, generally categorized as biological hazards, chemical exposure and physical hazards include the following:

3.1 Chemical Exposure Hazards

Known or suspected chemical contaminant hazards that could be encountered during site operations are detailed in Table 1.

The main route of exposure for site chemicals is inhalation of vapors/dust; a second route of exposure is skin/eye contact and absorption. Incidental ingestion is also a possible route of exposure.

Potential exposures will be reduced or eliminated by following the work practices and using the hierarch of controls under section 3.0 and as identified in the JSA inspection/process (Appendix A & B). The overall chemical health hazard assessment for activities covered by this HASP is low.

3.2 Biological Hazards

Standing water and high vegetation provide a breeding ground for numerous types of pest organisms and poisonous plants. Site clearing with mechanical equipment will be promoted where possible surrounding the designated work zone to minimize personnel exposure. In addition, the use of insect repellents will be encouraged. A First Aid Kit and insect repellent will be available for use in the field. Personnel should be aware of diseases carried by insects and wildlife, such as West Nile and Zika Virus carried by mosquitoes.

Bees: If venomous insects such as bees are noted in a work area, field personnel will not attempt to remove a bee or wasp hive. Field personnel should stop work to make property notifications, make a diligent effort to avoid disturbing bee colonies, and work with the PM to develop a plan to address the bee hazard, as applicable. Africanized bees may become very aggressive and attack individuals within a large radius of the hive.

Ticks: Lyme disease is caused by bacteria transmitted to humans through the bite of an infected blacklegged tick. Symptoms include fever, headache, fatigue and a characteristic skin rash that has a bulls-eye appearance. Infection can spread to joints, the heart, and the nervous system if not treated. Ticks are six-legged insects

about the size of a sesame seed. They are found close to the ground, especially in moist, shaded, and wooded areas, and on low plants in the edges of hiking trails. Use buddy system to routinely check for ticks. If one is found attached, use tweezers to grasp the tick close to the skin's surface and pull steady upward avoiding twisting and jerking as soon as possible. Immediately report the incident to the HSO to determine if any follow-up care is necessary.

Spiders: There are a few types of poisons spiders found the United States. Black widow spiders prefer to nest near the ground, in dark, undisturbed areas such as low shrubs. Only female black widows are poisonous and are identified as long-legged, shiny, coal-black spiders with a red hourglass shape on their underside. Female black widows are usually about 2 inches across. Black widow spiders tend to bite defensively when their webs are disturbed. If bit, the area will likely swell within 30 minutes, will hurt, and the person can become achy all over. Other symptoms may include headache, vomiting, nausea, weakness, and sweating.

Report any inspect bites immediately to the HSO. Wash the area as soon as possible and apply an ice pack and elevate the area to minimize the venom spread. If possible, catch the spider and if medical attention is needed, bring it to the occupational medical facility with you, if medical attention is necessary. Over the counter pain reliever is typically sufficient, but other medication may be required if there is another underlying medical problem.

To avoid getting bit, be aware of your surroundings, wear gloves and other level D PPE to cover skin areas, shake out clothing, shoes, etc. if they are sitting onsite.

Other Insects: More than 40 annual fatalities result from severe venom allergic reactions from insect bites or stings. Common California biting and stinging insects include ticks, chiggers, centipedes, mosquitoes, black deer and horse flies, spiders, fire ants, midges, scorpions, bees, wasps, and hornets. Symptoms of severe allergic reactions include large areas of itching and hives, difficulty breathing, dizziness, excess sweating, nausea, swelling of the tongue or throat, and possibly a rapid decrease in blood pressure resulting in loss of consciousness. Aside from allergic reactions, biting and stinging insects can cause tissue

swelling, infections of bite and sting sites, skin lesions, itching, dermatitis, and pain or burning sensations

Snakes: To avoid snake bites, personnel will check for snakes before walking through grassy or debris strewn areas. Rattlesnakes are fairly common in Southern California. The bite of a rattlesnake, regardless of size, can be fatal if not treated properly. Workers should be cautioned to avoid reaching into locations where visibility is impaired. If a worker is bitten by a rattlesnake, the victim should be transported to the nearest emergency room as quickly as possible. The location of the nearest emergency room should be clearly posted, and all supervisors should be made aware of the location of the nearest emergency facility. If a worker is bitten by a rattlesnake, another employee should dial 911 immediately; the worker should be kept calm until emergency transportation arrives. Do not apply a tourniquet. A "snake bite kit" will be carried with the field team during field reconnaissance.

Project staff will be surveyed prior to the start of field work to identify personnel with known significant adverse reactions to insect bites or other allergens.

Poisonous Plants: Poisonous plants, including poison oak and poison sumac, may be present in the wooded areas across the Site. While appropriate clothing should be worn to prevent exposure to poisonous plants, proper identification and avoidance is the preferred method of reducing exposure.

3.3 Physical Hazards

Physical hazards, which may be encountered during site operations for this project, are also included in Table 1. Caution should always be used around energized machinery.

Investigation-derived soil cuttings from subsurface investigations may be placed in 55-gallon drums and labeled properly. Drum handling techniques must be practiced to prevent back, hand, and foot injuries. Proper drum handling techniques are presented in Appendix C.

Heat stress or cold exposure poses a hazard to personnel working under extreme temperatures. Guidelines to prevent ill effects of either exposure are presented in Appendix D and E.

Slip, trip, or fall hazards may be present throughout the site, with increased likelihood with sampling and excavation activities. Use caution when walking on the site, check safety boots are laced securely with 6-inch ankle support, and use three points of contract when walking up and down stairs. Physical hazard analysis by task can be found in Table 1.

3.4 Task-By-Task Risk Analysis

Through information gathering, inspection, and monitoring, hazards that are potentially present have been determined for each specific task described in Section 1.3. Table 1 provides a summary of chemical exposure and physical hazards that could potentially be encountered by personnel during each task effort. In addition, a JSA will be completed on a daily basis for each specific job/task on that day. The JSA will identify potential hazards and the controls to mitigate those hazards.

4.0 PERSONNEL TRAINING

4.1 Basic Training

Completion of an initial 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training program (or its equivalent) as detailed in OSHA's 29 CFR 1910.120I is required for all employees who will perform work in areas where the potential for a toxic exposure exists. Annual 8-hour refresher training is also required to maintain competencies to ensure a safe work environment. In addition to these training requirements, supervisory personnel must also receive 8 additional hours of specialized management training. Training records are maintained by the HSC.

4.2 Site-Specific Training

- HASP orientation, fire extinguisher, and defensive driver best practices is required for all.
- At least two people onsite must have First Aid/CPR/AED training at all times.
- OSHA 10-hr: All staff working around the excavations shall also have OSHA 10-HR construction safety.
- Hand Safety – Drillers shall have hand safety awareness training.
- Excavation work must be overseen by a certified 'Excavation Competent Person'.
- Additional training may be required for personnel who do not have HAZWOPER certification.

4.3 Safety Briefings

Project personnel will be given briefings by the site HSO on a daily or more frequent (as-needed) basis to further assist site personnel in conducting their activities safely. All project and field staff are expected to be fully engaged with the site HSSE program and participate in daily briefing. Briefings will be provided when new activities are to be conducted, changes in work practices must be implemented due to new information made available, or if site or environmental conditions change. Briefings will also be given to facilitate conformance with prescribed safe practices when performance deficiencies are identified during routine daily activities or as a result of jobsite safety inspections. Documentation of Safety Briefings is provided in Appendix F.

4.4 Tailgate Meetings

At a minimum, a tailgate meeting will be held prior to and after work is completed to review the job steps, hazards, controls and lessons learned. The topics discuss shall be documented on the applicable form.

5.0 MEDICAL SURVEILLANCE

5.1 Fitness for Duty

All personnel who will be performing field work involving potential exposure to toxic and hazardous substances will be required to have passed an initial baseline medical examination, with annual follow-up medical exams thereafter, consistent with 29 CFR 1910.120(f). Medical evaluations will be performed by, or under the direction of, a physician board-certified in occupational medicine. Medical records are maintained by the HSC.

Hazard identification process has not identified the need for respirator use consistent with 29 CFR 1910.134I, Respiratory Protection. If scope, field conditions, air monitoring reading, or risks change that would trigger Level C PPE (including respirators), work shall be stopped to reevaluate site control measures.

6.0 AIR MONITORING

6.1 General

It will be necessary to monitor the atmospheric conditions during on-site work activities to identify and quantify airborne contaminants; to assist in defining work zones; and, to determine the level of worker protection needed. Upgrades/downgrades to personal protective equipment (PPE) will be made based on air monitoring results in the breathing zone. In general, work shall be initiated in Level D PPE with stop work required prior to upgrading the level of PPE based on action levels.

6.2 Instrumentation and Action Levels

Instrumentation used to evaluate action levels may include a PID (Photo-ionization Detector), a FID (Flame Ionization Detector), CGI (Combustible Gas Indicator), an O_2 Meter (oxygen meter), passive samplers, personal monitoring pump and/or Drager detection tubes. Table 2 provides a summary explanation of monitoring equipment. All applicable instruments will be calibrated before and after each use. Readings will be recorded on the Instrumentation Calibration Log

(Appendix F). Before any field activities commence, the background levels of the site will be monitored and recorded away from the areas of potential contamination to obtain accurate results. Instrument action levels for monitored gases are provided in Table 3.

Regarding exposure to particulates, it will be emphasized that the general practice is to keep dust generation to an absolute minimum. No visible dust generation during the execution of the tasks will be required and continuous visual monitoring will be completed by the HSO or designee. In the unlikely event that dust is generated for a sustained period (more than 1 minute) during the execution of the tasks, work will cease, workers will move upwind of the work area until the dust has settled, and steps will be taken to prevent a recurrence of visible dust generation (i.e., wet down with water from hose, sprayer, etc.) before work resumes.

7.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

7.1 Levels of Protection

PPE must protect workers from the specific hazards they are likely to encounter on-site. Selection of the appropriate PPE must take into consideration: (1) identification of the hazards or suspected hazards; (2) potential exposure routes; and, (3) the performance of the PPE construction (materials and seams) in providing a barrier to these hazards. Based on anticipated site conditions and the proposed work activities to be performed at the site, Level D Protection will be used.

- Minimal Level D Protection
  a. Safety glasses w/side shields or chemical splash goggles;
  b. Safety boots/shoes (toe protected with 6-inch ankle support);
  c. Hard hat;
  d. Sleeved work shirt and work pants;
  e. Class II Traffic/Safety vest;
  f. Cut resistant gloves & glove clip.

Additional PPE available if needed

- Coveralls (Tyvek or equivalent);
- Nitrile gloves (as needed);
- Hearing protection (as needed);
- Task specific gloves;
- Personal protection from snake bites (Ex- "chaps." as needed);
- Chemical resistant boots or gloves.

7.2 Limitations of PPE

The PPE prescribed in this HASP has some limitations. These limitations are presented below:

Chemical Resistant Gloves

- Concerns with permeation, degradation, and penetration;
- Composition of fabric will depend upon chemical properties;
- Dexterity is reduced; and
- Durability may not meet demands of activities performed.

Chemical Resistant Boots

- Material depends upon chemical properties;
- Steel-toed boots may lose heat in cold weather;
- Boots may cause reduction in dexterity and present tripping hazard; and because of weight and improper sizing.

Eye Protection

- May cause reduction of peripheral vision.

8.0 Emergency Recognition and Prevention

8.1 Fires and Explosions

Fires and explosions are possible whenever flammable materials, gases, or vapors materials are present in proper concentrations and an ignition source is present. While flammable gases or vapor are not expected to be a concern during

activities, there is need to protect against potential situations. In the case of a fire or explosion, emergency services will be contacted by phone.

8.2 Chemical Exposures

Work will be performed in such a manner that exposure to contaminants through skin or eye contact, inhalation or ingestion is minimized. Work practices that will be followed to reduce chemical exposures include:

- PPE, as specified in Section 7, for the appropriate work activities and areas as defined by the Langan SSO, will be used by all personnel. A formal revision to the HASP must be made by the HSO in order to modify the PPE specifications.
- Keep hands away from face during work activities.
- Minimize all skin and eye contact with contaminants.
- Air monitoring will be done in accordance with Section 6.

Early recognition of chemical exposure symptoms is essential to the prevention of serious chemical exposure incidents. Symptoms of exposure to the type of compounds potentially present at the site include the following: eye, nose, throat irritation, headache, dizziness, nausea, vomiting, and muscle spasms.

If a person experiences any of these symptoms, or others recognize any of the symptoms in a fellow worker, the person experiencing the symptoms will stop work and report his or her symptoms to the Langan SSO. If these symptoms occur all work shall stop. If symptoms are serious, work activities in the area where the person was exposed will be discontinued until further study is conducted regarding the incident. The SSO shall increase monitoring and make a decision whether upgrading of PPE and engineering controls will be necessary. If the symptoms persist or appear to be damaging in any way, the Langan SSO will make arrangements to take the individual to a hospital for medical treatment. If symptoms are serious, work activities in the area where the person was exposed will be discontinued until more is known about the incident. Incident reporting procedures as specified in Section 10.9 will be initiated.

8.3 Physical Injury

Site personnel should constantly look for potential safety hazards such as holes or ditches, precariously positioned objects, sharp objects, such as loose rocks, nails, metal shards, and broken glass, protruding objects at eye or head level, slippery surfaces, steep grades, uneven terrain or unstable surfaces. Site personnel should inform the Langan SSO of any potential hazards identified so that corrective action can be taken.

9.0 SITE CONTROL

9.1 Site Communications Plan

Verbal communications will be the primary method of communication used at the site during the field activities. Cell phones and two way radios shall be used to the extent practical by field teams for communication. Hand signals will be used in instances where verbal communication is restricted. Hand signals will be covered during site-specific training. Hand signals and their message:

Hand Signal	Meaning
Hand gripping throat	Out of air; cannot breathe
Grip partner's wrists or place both hands around waist	Leave immediately without debate
Hands on top of head	Need assistance
Thumbs up	OK; I'm alright; I understand
Thumbs down	No; negative
Simulated "stick" break with fists	Take a break; stop work

9.2 Work Zones

The need to formally establish specific work zones (Support, Contamination Reduction, and Exclusion Zones) during site activities is to be determined by the HSO. For Task 1 and 2 at this site; however, a general work zone localized in the immediate vicinity of the soil boring is all that is necessary to maintain the control required.

9.3 The Buddy System

When performing field reconnaissance, teams will work in pairs of two or more, and will use the "buddy system" for all work activities to ensure that rapid assistance can be provided in the event of an emergency. This requires work groups to be organized such that workers can remain close together and maintain visual contact with one another. Workers using the "buddy system" have the following responsibilities:

- Provide his/her partner with assistance
- Observe his/her partner for signs of chemical or heat exposure
- Periodically check the integrity of his/her partner's PPE
- Notify the HSO or other site personnel if emergency service is needed

9.4 Nearest Medical Assistance

The address and telephone number of the nearest hospital:
Riverside Community Hospital
4445 Magnolia Avenue
Riverside, California 92501
951-788-3000

Map with directions to the hospital is shown in Figure 2. This information is posted conspicuously at the site, or is always available to all personnel all of the time. Furthermore, all managers will know the directions to the hospital.

9.5 Safe Work Practices

The standing orders, safe work practices that must always be followed while on site, are shown in Figure 3. Many are common sense in nature. The site HSO has responsibility for enforcing these practices which are posted conspicuously at the site. Those who do not abide by these safe work practices will be removed from the site.

10.0 EMERGENCY RESPONSE

10.1 General

Because of the hazards that may be present at the site, and the conditions under which operations are conducted, it is possible that an emergency situation may develop. Emergency situations can be characterized as injury or chemical exposure to personnel; fire or explosion; environmental release; or serious weather conditions.

10.2 Responsibilities

Site Emergency Coordinator - The HSO, or his/her alternate, will serve as the Site Emergency Coordinator and shall implement emergency procedures whenever conditions warrant such action. The Site Emergency Coordinator will be responsible for assuring the evacuation, emergency treatment, emergency transport of site personnel, and notification of emergency units and the appropriate management staff. Emergency response instructions will be provided by the HSO as part of every employee's training prior to the start of work.

Employees - All employees are familiar with emergency response procedures for this work location.

10.3 Evacuation

In the event of an emergency situation, an air horn or vehicle horn will be sounded three (3) times indicating the initiation of evacuation procedures. Loud voice command, if appropriate, can be used. All personnel will evacuate and assemble at the pre-selected site location. No one, except the emergency responders, will be allowed to proceed into the area once the emergency signal has been given. The Site Emergency Coordinator will ensure that access for emergency equipment is provided. Wind direction will be taken into consideration for evacuation plans. Evacuation plans will be discussed at the initial Site-Specific Training and as needed at the regular safety briefings.

10.4 Emergency Contacts/Notification System

The fire department and other emergency response groups will be notified by telephone of the emergency as soon as possible. Emergency telephone numbers list is found as Table 4 in this HASP. This list is also posted at the site, or is readily available to all personnel all of the time.

Langan requires that all property damage and injuries of any personnel (Langan employees, subcontractors, property owners, site visitors, etc.) associated with the field activities be reported to the Langan PM and HSM immediately (or as soon as possible).

10.5 Emergency Medical Treatment

Personnel Injury - In case of injury to personnel, immediately initiate emergency first aid. A First Aid kit is located in the Langan vehicle. The ambulance/rescue squad shall be contacted as necessary. Some situations may require transport of the injured parties by automobile. All injured workers must be escorted to the medical facility. Therefore, maps/directions to the nearest hospital are provided as Figure 2. Figure 2 is also posted at the site, or is readily available to all personnel all of the time.

Personnel Exposure to Physical Hazards - Emergency first aid procedures to be followed are:

Skin Contact: Use copious amounts of soap and water. Wash/rinse affected areas thoroughly, and then provide appropriate medical attention. Rinse eyes with water for at least 15 minutes.

Puncture/Laceration: Decontaminate, if possible, and transport to emergency medical facility.

Chemical Exposure: follow procedures on the Safety Data Sheet.

10.6 Fire or Explosion or Jobsite Evacuation:

If a monitoring alarm is recognized as a hazard, a fire occurs, or any environmental or physical hazard threatens the Langan work crew, the HSO will immediately order the evacuation of the jobsite to the Safe Briefing Area identified at the Daily Safety Meeting, depending on the location of the hazard. The HSO will take a headcount of jobsite personnel at the Safe Briefing Area. All personnel are to report to the "safe" assembly area anytime an emergency evacuation alarm is sounded or you are instructed to proceed to this area by the Person-in-Charge or a designee. Each job site will have a specific area and notification system for emergencies. Workers will receive specific training on each job site's evacuation procedure at the Daily Safety Meeting prior to starting work for the day.

10.7 Adverse Weather Conditions

In the event of heavy precipitation the field team will immediately evacuate areas where storm water is collected or stored, such as catch basins. Conditions will be reassessed on site to determine if the work can proceed safely following evacuation. If it is determined that the weather poses a significant hazard, site operations will be stopped and rescheduled. Some of the items to be considered prior to determining if work should continue include:

- Potential for heat stress and heat-related injuries
- Treacherous weather-related working conditions
- Limited visibility

Field and equipment work being conducted outside shall be stopped for 30 minutes following hearing thunder or seeing lightening.

10.8 Earthquake Response

In the event of an earthquake, the field team will immediately move to a location to avoid falling rock or other objects. Following an assessment of field conditions the team will muster at the designated area and then evacuate and follow inspections of the emergency services..

10.9 Documentation/Investigation

Immediately following an incident or near miss, unless emergency medical treatment is required, either the employee or a coworker must contact the Langan Incident/Injury Hotline at 1-800-9LANGAN (ext. #4699) and the client representative to report the incident or near miss. A written report must be completed and submitted to the client representative within 24 hours of the incident. For emergencies involving personnel injury and/or exposure, employee will complete and submit the Langan Incident/Injury Report to the Langan Corporate Health and Safety Manager as soon as possible following the incident for necessary reporting, notifications, and to kick off the investigation process.

Accidents will be investigated in-depth to identify all causes and to recommend hazard control measures. Except for rescue and emergency measures, the accident scene shall not be disturbed until it has been released by the investigating official.

11.0 CONFINED SPACE ENTRY

Confined space entry (including but not limited to excavations) is not required for this project.

12.0 SUBSURFACE UTILITIES

Private and public subsurface utilities are located throughout Jurupa Valley, CA. A minimum of 48 hours notification before any excavation activities to the One Call Notification Center, Dig Alert, will be made to notify public utilities to mark out their utilities within the vicinity of the work. The PM will verify three lines of evidence have been cleared prior to commencing any subsurface work.

13.0 HASP APPROVALS

By their signature, the undersigned certify that this HASP is approved.



_____ 6/1/2018____

Brad A. McCardell — Date

Senior Project Manager



_____ 6/1/2018____

Neil Shukla — Date

Site Health & Safety Officer (HSO)

14.0 HASP COMPLIANCE AGREEMENTS

All Langan field personnel and subcontractors will sign this HASP Compliance Agreement indicating that they have become familiar with this HASP, and that they understand it and agree to abide by it.

Printed Name	Signature	Company	Date

TABLES

TABLE 1

TASK RISK ANALYSES

A. CONTAMINANT HAZARDS OF CONCERN

Task	Contaminant	Monitoring Device	PEL	Potential Source of Contaminant on Site	Route of Exposure	Symptoms	Target Organs
3, 4, 5, 6, 7,	TPH (Benzene)	PID	10 ppm TWA 5 ppm STEL	Soil, Soil Gas, potential groundwater	Inhalation Ingestion Contact Absorption	Irritation of eyes, skin, nose, respiratory system, giddiness, headache, nausea; staggering gait, fatigue, anorexia, weakness, dermatitis, bone marrow depression, potential carcinogen	Eyes, skin, CNS, bone marrow, blood
3, 4, 5, 6, 7	Hexavalent Chromium	N/A	0.005 mg/m3	Soil containing CKD, CKD, Refractory Brick, potential groundwater	Inhalation Ingestion Contact	Irritates respiratory system, nasal, septum perforation, liver and kidney damage, leucocytosis (increased blood leucocytes), leukopenis (reduced blood leucocytes), moncytosis (increased monocytes), Eosinophilia, eye injury, conjunctivitis, skin ulcer, sensitivity dermatitis, potential carcinogen	Blood, respiratory system, liver, kidney, eyes, skin, lung cancer
3, 4, 5, 6, 7	Dust	N/A	10 mg/m3	Soil	Inhalation Ingestion Contact	Irritated eyes, respiratory system/cardiovascular, sneezing	Eyes, respiratory system (lungs), dermal
3, 4, 5, 6, 7	Arsenic (inorganic)	N/A	0.01 mg/m3	Soil, potential groundwater	Inhalation Ingestion Contact	Abdominal pain, destruction of red blood cells, shock, vomiting, diarrhea, dehydration, headache	Dermal, Blood, kidney, blood, cardiovascular, dermal

3, 4, 5, 6, 7	Lead (inorganic)	N/A	0.05 mg/m3	Soil, potential groundwater	Inhalation Ingestion Contact	High blood pressure, joint and muscle pain, memory loss, headache, abdominal pain	Liver, kidney, blood, cardiovascular, dermal

EXPLANATION OF ABBREVIATIONS

CKD = Cement Kiln Dust
PID = Photoionization Detector
PCBs = Polycyclic Aromatic Hydrocarbons
PEL = Permissible Exposure Limit
TPH = Total Petroleum Hydrocarbons
VOCs = Volatile Organic Compounds
IDLH = Immediately Dangerous to Life and Health
LEL = Lower Explosive Limit
ppm = part per million
abdom = abdominal
anor = anorexia
arrhy = arrhythmia
card = cardiac
Ca = Considered by NIOSH to be potential occupational carcinogen
[carc] = potential occupational carcinogen
CNS = central nervous system
depres = depressant/depression
derm= dermititis
dizz = dizziness
drow = drowsiness
tg = fatigue
gidd = giddiness
inco = incoordination
inj = injury
lass = lassitude (weakness, exhaustion)
muc memb = mucous membrane
nau = nausea
pares = paresthesia
som = somnolence (sleepiness, unnatural drowsiness)
verti = vertigo
vis dist = visual disturbance

B. PHYSICAL HAZARDS OF CONCERN

Task	Hazard	Description	Control Measures	First Aid
3, 4, 5, 6, 7	Skin contact	Sample spills on skin; splashes in eyes.	Wear proper PPE; follow safe practices	Wash with soap and water, dry with clean disposable cotton cloth. Do not rub affected area. Bandage as needed to protect affected area.
1, 2, 3, 4, 5, 6, 7	Lacerations, abrasions, punctures	Cutting bailer twine, pump tubing, etc. with knife. Using tools in tight spaces, etc.	Wear proper PPE; follow safe practices	See pages 48-51, NSC "First Aid and CPR Standard" manual
3, 4, 5, 6, 7	Inhalation	Opening wells, purging and sampling exposes sampler	Follow air monitoring plan; have quick access to respirator	Relocate to area of fresh air, as applicable
2, 3, 4, 5, 6, 7	Lifting	Improper lifting/carrying of equipment and materials causing strains	Follow safe lifting techniques	Follow the RICE procedures (p.99 in NSC manual)
1, 2, 3, 4, 5, 6, 7	Slips, trips, and falls	Any number of injuries could occur from slips, trips, and falls in carrying out these tasks	Good housekeeping at site, constant awareness and focus on the task, awareness of surroundings	Cease working and evaluate severity of injury, if not serious, and determine if person can resume duties. Seek professional medical attention, if necessary.

Q:\Other\Health&Safety\GenericTable1TaskRiskAnalysis

TABLE 2
Summary of Monitoring Equipment

Instrument	Operation Parameters
Combustible Gas Indicator (CGI)	**Hazard Monitored:** Combustible gases and vapors. **Application:** Measures the concentration of combustible gas or vapor. **Detection Method:** A filament, usually made of platinum, is heated by burning the combustible gas or vapor. The increase in heat is measured. Gases and vapors are ionized in a flame. A current is produced in proportion to the number of carbon atoms present. **General Care/Maintenance:** Recharge or replace battery. Calibrate immediately before use. **Typical Operating Time:** Can be used for as long as the battery lasts, or for the recommended interval between calibrations, whichever is less.
Flame Ionization Detector (FID) with Gas Chromatography Option *(i.e., Foxboro Organic Vapor Analyzer (OVA))*	**Hazard Monitored:** Many organic gases and vapors (approved areas only). **Application:** In survey mode, detects the concentration of many organic gases and vapors. In gas chromatography (GC) mode, identifies and measures specific compounds. In survey mode, all the organic compounds are ionized and detected at the same time. In GC mode, volatile species are separated. **General Care/Maintenance:** Recharge or replace battery. Monitor fuel and/or combustion air supply gauges. Perform routine maintenance as described in the manual. Check for leaks. **Typical Operating Time:** 8 hours; 3 hours with strip chart recorder.
Potable Infrared (IR) Spectrophotometer	**Hazard Monitored:** Many gases and vapors. **Application:** Measures concentration of many gases and vapors in air. Designed to quantify one or two component mixtures. **Detection Method:** Passes different frequencies of IR through the sample. The frequencies absorbed are specific for each compound. **General Care/Maintenance:** As specified by the manufacturer.
Ultraviolet (UV) Photoionization Detector (PID) *(i.e., Hnu)*	**Hazard Monitored:** Many organic and some inorganic gases and vapors. **Application:** Detects total concentration of many organic and some inorganic gases and vapors. Some identification of compounds are possible if more than one probe is measured. **Detection Method:** Ionizes molecules using UV radiation; produces a current that is proportional to the number of ions. **General Care/Maintenance:** Recharge or replace battery. Regularly clean lamp window. Regularly clean and maintain the instrument and accessories. **Typical Operating Time:** 10 hours. 5 hours with strip chart recorder.
Direct Reading Colorimetric Indicator Tube	**Hazard Monitored:** Specific gas and vapors. **Application:** Measures concentration of specific gases and vapors. **Detection Method:** The compound reacts with the indicator chemical in the tube, producing a stain whose length or color change is proportional to the compound's concentration. **General Care/Maintenance:** Do not use a previously opened tube even if the indicator chemical is not stained. Check pump for leaks before and after use. Refrigerate before use to maintain a shelf life of about 2 years. Check expiration dates of tubes. Calibrate pump volume at least quarterly. Avoid rough handling which may cause channeling.

TABLE 2 (Continued)
Summary of Monitoring Equipment

Aerosol Monitor	**Hazard Monitored:** Airborne particulate (dust, mist, fume) concentrations **Application:** Measures total concentration of semi-volatile organic compounds, PCBs, and metals. **Detection Method:** Based on light-scattering properties of particulate matter. Using an internal pump, air sample is drawn into the sensing volume where near infrared light scattering is used to detect particles. **General Care/Maintenance:** As specified by the mfr. Also, the instrument must be calibrated with particulates of a size and refractive index similar to those to be measured in the ambient air.
Oxygen Meter	**Hazard Monitored:** Oxygen (O_2). **Application:** Measures the percentage of O_2 in the air. **Detection Method:** Uses an electrochemical sensor to measure the partial pressure of O_2 in the air, and converts the reading to O_2 concentration. **General Care/Maintenance:** Replace detector cell according to manufacturer's recommendations. Recharge or replace batteries prior to explanation of the specified interval. If the ambient air is less than 0.5% CO_2, replace the detector cell frequently. **Typical Operating Time:** 8 – 12 hours.
Monitox	**Hazard Monitored:** Gases and vapors. **Application:** Measures specific gases and vapors. **Detection Method:** Electrochemical sensor relatively specific for the chemical species in question. **General Care/Maintenance:** Moisten sponge before use; check the function switch; change the battery when needed.
Gamma Radiation Survey Instrument	**Hazard Monitored:** Gamma Radiation. **Application:** Environmental radiation monitor. **Detection Method:** Scintillation detector. **General Care/Maintenance:** Must be calibrated annually at a specialized facility. **Typical Operating Time:** Can be used for as long s the battery lasts, or for the recommended interval between calibrations, whichever is less.

Q:\Data3\3542302\OfficeData\Reports\Hasp\TABLE2SummaryMonitoringEquipment

TABLE 3

INSTRUMENTATION ACTION LEVELS FOR PETROLEUM IMPACTED SITES

Photoionization Detector Action Levels	**Action Required**
Background to 5 ppm	No respirator; no further action required
> 5 ppm but < 100 ppm for > 5 minutes	1. Temporarily discontinue all activities and evaluate potential causes of the excessive readings. If these levels persist and cannot be mitigated (i.e., by slowing drilling or excavation activities), contact HSO to review conditions and determine source and appropriate response action. 2. If PID readings remain above 5 ppm, temporarily discontinue work and upgrade to Level C protection. 3. If sustained PID readings fall below 5 ppm, downgrading to Level D protection may be permitted.
> 100 ppm but < 500 ppm for > 5 minutes	1. Discontinue all work; all workers shall move to an area upwind of the jobsite. 2. Evaluate potential causes of the excessive readings and allow work area to vent until VOC concentrations fall below 100 ppm. 3. Level C protection will continue to be used until PID readings fall below 5 ppm.
> 500 ppm	Evacuate the work area

Notes:
1. 5 ppm level based on OSHA Short Term Exposure Limit (STEL) for benzene.
2. 100 ppm level based on 1 percent being the OSHA Permissible Exposure Limit (PEL) for benzene (1 ppm).
3. 500 ppm level based on NIOSH Immediately Dangerous to Life and Health (IDLH) for benzene.

TABLE 4
EMERGENCY NOTIFICATION LIST
(Must Be Posted)

ORGANIZATION	CONTACT	TELEPHONE
Local Police Department		911 or
Local Fire Department		911 or
Ambulance/Rescue Squad		911 or
Hospital	Riverside Community Hospital	911 or 951-788-3000
Occupational Health Clinic	Healthpointe Colton	909-264-2500
Langan Project Manager (PM)	Drew Lassen	805-708-7200
Langan Principal	Rory Johnston	908-202-1407
Langan Health & Safety Officer (HSO)	Rachel Prohoroff	559-801-9573
Langan Health & Safety Coordinator (HSC)	Tony Moffa	215-491-6500
Langan Incident/Injury Hotline		1-800-9LANGAN #4699
Client Project Manager		
National Response Center (NRC)		800-424-8802
Chemical Transportation Emergency Center (Chemtrec)		800-424-9300
Center for Disease Control (CDC)		404-488-4100
EPA (RCRA Superfund Hotline)		800-424-9346
TSCA Hotline		202-554-1404
Poison Control Center		800-222-1222

Emergency Notification Procedure

1. **If Emergency Dial 911 (if necessary)**
2. **Contact Langan PM/HSO**
3. **Contact Langan Principal, who will contact the client when needed**
4. **Contact Langan Corporate H&S**

FIGURES



NOTES:

1. BACKGROUND IMAGE REFERENCED FROM AERIAL DATADOORS DESKTOP ON 28 APRIL 2016.
2. APPROXIMATE SITE LIMITS REFERENCED FROM PLAN TITLED "CRESTMORE REDEVELOPMENT, JURUPA VALLEY, CA – PRELIMINARY SITE PLAN – SCHEME A.01," PREPARED BY RGA OFFICE OF ARCHITECTURAL DESIGN, DATED 11 MAY 2016.

LEGEND:

APPROXIMATE LIMITS OF SUBJECT PROPERTY

APPROXIMATE LIMITS OF FORMER RIVERSIDE CEMENT MANUFACTURING PLANT

600 0 300 600

SCALE IN FEET

LANGAN
32 Executive Park, Suite 130, Irvine, CA 92614
T: 949.255.8640 F: 949.255.8641 www.langan.com
NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA OHIO
VIRGINIA WASHINGTON DC FLORIDA NORTH DAKOTA CALIFORNIA
ABU DHABI ATHENS DOHA
DUBAI ISTANBUL PANAMA
Langan Engineering & Environmental Services, Inc.

Project
RIVERSIDE CEMENT PLANT
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

Figure Title
SITE LOCATION MAP

Project No. 700045401
Date 10 JUNE 2016
Scale 1" = 600'
Drawn By AT

Figure No. 1

© 2015 Langan

Filename: \\langan.com\data\IRV\data4\700045401\Cadd Data 700045401\2D DesignFiles\Site Location Map.dwg Date: 6/9/2016 Time: 17:51 User: jbaron Style Table: Langan.stb Layout: Site Location Map

Google Maps

1500 Rubidoux Blvd, Riverside, CA to 4445 Magnolia Avenue, Riverside, CA

Drive 4.9 miles, 13 min

Figure 3: Route to Hospital Map



Imagery ©2016 Google, Map data ©2016 Google 1 mi

1500 Rubidoux Boulevard

Riverside, CA 92509

1. Head west on El Rivino Rd toward Cedar Ave — 0.2 mi
2. Turn left onto Rubidoux Blvd — 1.0 mi
3. Turn left onto Market Street — 3.6 mi
4. Continue onto Magnolia Ave — 0.1 mi

4445 Magnolia Avenue

Riverside, CA 92501

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

FIGURE 3
STANDING ORDERS
(Must Be Posted)

GENERAL

- No smoking, eating, or drinking in this work zone.
- Upon leaving the work zone, personnel will thoroughly wash their hands and face.
- Minimize contact with contaminated materials through proper planning of work areas and decontamination areas, and by following proper procedures. Do not place equipment on the ground. Do not sit on contaminated materials.
- No open flames in the work zone.
- Only properly trained and equipped personnel are permitted to work in potentially contaminated areas.
- Always use the appropriate level of personal protective equipment (PPE).
- Maintain close contact with your buddy in the work zone
- Contaminated material will be contained in the Exclusion Zone (EZ).
- Report any unusual conditions.
- Work areas will be kept clear and uncluttered. Debris and other slip, trip, and fall hazards will be removed as frequently as possible.
- The number of personnel and equipment in the work zone will be kept to an essential minimum.
- Be alert to the symptoms of fatigue and heat/cold stress, and their effects on the normal caution and judgment of personnel.
- Conflicting situations which may arise concerning safety requirements and working conditions must be addressed and resolved quickly by the site HSO.

TOOLS AND HEAVY EQUIPMENT

- Do not, under any circumstances, enter or ride in or on any backhoe bucket, materials hoist, or any other device not specifically designed to carrying passengers.
- Loose-fitting clothing or loose long hair is prohibited around moving machinery.
- Ensure that heavy equipment operators and all other personnel in the work zone are using the same hand signals to communicate.
- Drilling/excavating within 20 feet in any direction of overhead power lines is prohibited.
- The locations of all underground utilities must be identified and marked out prior to initiating any subsurface activities.
- Check to insure that the equipment operator has lowered all blades and buckets to the ground before shutting off the vehicle.
- If the equipment has an emergency stop device, have the operator show all personnel its location and how to activate it.
- Help the operator ensure adequate clearances when the equipment must negotiate in tight quarters; serve as a signalman to direct backing as necessary.
- Ensure that all heavy equipment that is used in the Exclusion Zone is kept in that zone until the job is done, and that such equipment is completely decontaminated before moving it into the clean area of the work zone.
- Samplers must not reach into or get near rotating equipment such as the drill rig. If personnel must work near any tools that could rotate, the equipment operator must completely shut down the rig prior to initiating such work. It may be necessary to use a remote sampling device.

APPENDIX A
Jobsite Safety Inspection Checklist

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Client: _____ Inspection Date: _____
Site: _____ Inspector: _____
Project Number: _____

Check one of the following: A: Acceptable NA: Not Applicable D: Deficiency				
	A	**NA**	**D**	**Remarks**
1. HASP available on site for inspection?				
2. Health & Safety Compliance agreement (in HASP) appropriately signed by Langan employees and subcontractors?				
3. Hospital route map with directions posted on site?				
4. Emergency Notification List posted on site?				
5. First Aid kit available and properly stocked?				
6. Personnel trained in CPR/First Aid on site?				
7. MSDSs readily available, and all workers knowledgeable about the specific chemicals and compounds to which they may be exposed?				
8 Appropriate PPE being worn by Langan employees and subcontractors?				
9. Project site safe practices ("Standing Orders") posted?				
10. Project staff have 40-hr./8-hr./Supervisor HAZWOPER training?				
11. Project staff medically cleared to work in hazardous waste sites and fit-tested to wear respirators, if needed?				
12. Respiratory protection readily available?				
13. Health & Safety Incident Report forms available?				
14. Air monitoring instruments calibrated daily and results recorded on the Daily Instrument Calibration check sheet?				
15. Air monitoring readings recorded on the air monitoring data sheet/field log book?				
16. Subcontract workers have received 40-hr./8-hr./Spvsr. HAZWOPER training, as appropriate?				
17. Subcontract workers medically cleared to work on site, and fit-tested for respirator wear?				
18. Subcontract workers have respirators readily available?				
19. Markouts of underground utilities done prior to initiating any subsurface activities?				

20. Decontamination procedures being followed as outlined in HASP?				
21. Are tools in good condition and properly used?				
22. Drilling performed in areas free from underground objects including utilities?				
23. Adequate size/type fire extinguisher supplied?				
24. Equipment at least 20 feet from overhead powerlines?				
25. Evidence that drilling operator is responsible for the safety of his rig.				
26. Trench sides shored, layed back, or boxed?				
27. Underground utilities located and authorities contacted before digging?				
28. Ladders in trench (25-foot spacing)?				
29. Excavated material placed more than 2 feet away from excavation edge?				
30. Public protected from exposure to open excavation?				
31. People entering the excavation regarding it as a permit-required confined space and following appropriate procedures?				
32. Confined space entry permit is completed and posted?				
33. All persons knowledgable about the conditions and characteristics of the confined space?				
34. All persons engaged in confined space operations have been trained in safe entry and rescue (non-entry)?				
35. Full body harnesses, lifelines, and hoisting apparatus available for rescue needs?				
36. Attendant and/or supervisor certified in basic first aid and CPR?				
37. Confined space atmosphere checked before entry and continuously while the work is going on?				
38. Results of confined space atmosphere testing recorded?				
39. Evidence of coordination with off-site rescue services to perform entry rescue, if needed?				
40. Are extension cords rated for this work being used and are they properly maintained?				
41. Are GFCIs provided and being used?				

Unsafe acts observed?

_____
_____
_____
_____
_____

Additional remarks

_____
_____
_____
_____
_____

Distribution:

Project Manager (for information and follow-up) Name:_____
Health & Safety Officer (for corrective action) Name: _____
Health & Safety Manager (resource for corrective action and follow-up) Tony Moffa

APPENDIX B
Job Safety Analysis

LANGAN

Job Safety Analysis (JSA)
Health and Safety

JSA Title:

JSA Number:

A Job Safety Analysis (JSA) must identify all job steps required to complete the task, the potential hazards employees could be exposed to while performing the job step and the preventative/corrective actions required to reduce/mitigate the identified potential hazards. Employees must certify that they have either prepared the JSA or have reviewed the JSA and are aware of the potential hazards associated with this task and will follow the provided preventive/corrective actions.

PERSONAL PROTECTIVE EQUIPMENT (Required or to be worn as needed):				
☐ Safety Shoes	☐ Long Sleeves	☐ Safety Vest (Class 2)	☐ Hard Hat	☐ Hearing Protection
☐ Safety Glasses	☐ Safety Goggles	☐ Face Shield	☐ Nitrile Gloves	☐ PVC Gloves
☐ Leather Gloves	☐ Cut Resist. Gloves	☐ Fall Protection	☐ Fire Resistant Clothing	☐ Rubber Boots
☐ Insect/Animal Repellent	☐ Ivy Blocker/Cleaner	☐ Traffic Cones/Signs	☐ Life Vest/Jacket	
☐ Other:				

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
1. Transport equipment to work area	1. Back Strain 2. Slips/ Trips/ Falls 3. Traffic 4. Cuts/abrasions from equipment 5. Contusions from dropped equipment	1. Use proper lifting techniques / Use wheeled transport 2. Minimize distance to work area / Have unobstructed path to work area / Follow good housekeeping procedures 3. Wear proper PPE (high visibility vest or clothing) 4. Wear proper PPE (leather gloves, long sleeves) 5. Wear proper PPE (safety shoes)
2. Set-up HSA/SPT and CPT rigs	1. Slips/ Trips/ Falls 2. Pinch Hazards 3. High noise levels 4. Clothing entanglement 5. Electrocution/falling equipment and debris from raising HSA/SPT rig mast 6. Carbon monoxide poisoning 7. HSA/SPT and CPT rig roll-over 8. HSA/SPT and CPT rig movement	1. Be aware of potential trip hazards / Follow good housekeeping procedures / Mark significant below-grade hazards (i.e. holes, trenches) with safety cones or spray paint 2. Wear proper PPE (leather gloves) 3. Wear proper PPE (hearing protection) 4. Wear proper attire for HSA/SPT and CPT rigs (no loose clothing, strings, etc.) 5. Wear proper PPE (hard hats) / Be aware of locations at all times / Look up, down and around before raising mast / Check HSA/SPT drill rig mast for loose objects/debris before rasining 6. Stand upwind of rig engine 7. Do not move rig with mast raised / Set stabilizers prior to raising mast / Inspect work area / If area appears unstable, the boring locations should be moved. 8. All field personnel should stay clear of rig while moving / Use a spotter when backing up the rig
3. Advance HSA/SPT and CPT rods, augers and casing below ground surface	1. Strain wrist/bruise palm 2. Pinched fingers 3. Back strain 4. Clothing entanglement 5. Carbon monoxide poisoning	1. Wear proper PPE (leather gloves) / Use proper technique for preparing rods / Use second person, if necessary 2. Wear proper PPE (leather gloves) 3. Use proper lifting techniques / Obtain assistance if needed 4. Wear proper attire for HSA/SPT and SPT rigs (no loose clothing, strings,

JSA Title:
JSA Number:

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
3.Advance HSA/SPT and CPT rods, augers and casing below ground surface (cont'd)	6. Bruised/Broken toes/feet 7. High noise levels	etc.) 5. Stand upwind of the rig 6. Wear proper PPE (safety shoes) 7. Wear proper PPE (hearing protection)
4. Remove and open split spoon	1. Pinched fingers 2. Cuts/lacerations 3. Skin contact with contaminated soil and groundwater	1. Wear proper PPE (nitrile and leather gloves) 2. Wear proper PPE (leather gloves) 3. Wear proper PPE (nitrile gloves, safety glasses)
5. Repeat steps 3 and 4 until desired depth is reached	1. See steps 3 and 4	1. See steps 3 and 4
6. Remove HSA/SPT and CPT rods, augers and casing and place in storage rack	1. Clothing entanglement 2. Back strain 3. Pinched fingers 4. Carbon monoxide poisoning 5. High noise levels	1. Wear proper attire for HSA/SPT rig (no loose clothing, strings, etc.) 2. Use proper lifting techniques / Obtain assistance if needed 3. Wear proper PPE (leather gloves) 4. Stand upwind of rig engine 5. Wear proper PPE (hearing protection)
7. Tremie-grout borehole with a cement-bentonite grout mixture	1. Splash cement/bentonite grout on face/eyes 2. Back strain 3. Pinched fingers	1. Wear proper PPE (safety glasses) 2. Use proper lifting techniques / Obtain assistance if needed 3. Wear proper PPE (nitrile gloves, leather gloves)
8. Decontaminate equipment	1. Contact with potentially impacted material 2. Contact with sharp pieces of equipment	1. Wear proper PPE (safety glasses, nitrile gloves) 2. Wear proper PPE (leather gloves)
9. Patch soil boring location to return to pre-existing conditions (i.e. concrete, asphalt, grass)	1. Cuts/lacerations 2. Splashed concrete on face/eyes 3. Hammer fingers/hands when patching asphalt	1. Wear proper PPE (leather gloves) / Use scissors for cutting 2. Use proper PPE (safety glasses) 3. Be aware of hands/fingers during hammering / Wear proper PPE (leather gloves)
10. All activities	1. Slips/ Trips/ Falls 2. Hand injuries, cuts or lacerations during manual handling of materials 3. Foot injuries 4. Back injuries 5. Traffic 6. Wildlife: Stray dogs, Mice/rats, Vectors (i.e. mosquitoes, bees, etc.) 7. High Noise levels 8. Overhead hazards 9. Heat Stress/ Cold Stress 10. Eye Injuries	1. Be aware of potential trip hazards / Follow good housekeeping procedures/ Mark significant hazards 2. Inspect for jagged/sharp edges, and rough or slippery surfaces / Keep fingers away from pinch points / Wipe off greasy, wet, slippery or dirty objects before handling / Wear leather/ cut-resistant gloves 3. Wear Langan approved safety shoes 4. Use proper lifting techniques / Consider load location, task repetition, and load weigh when evaluating what is safe or unsafe to lift / Obtain assistance when possible 5. Wear high visibility clothing & vest / Use cones or signs to designate work area 6. Be aware of surroundings at all times, including the presence of wildlife/ Do not approach stray dogs / Carry/use dog/animal repellant / Use bug spray when needed 7. Wear hearing protection 8. Wear hard hat / Avoid areas were overhead hazards exist. 9. Wear proper attire for weather conditions (sunscreen or protective clothing in sunlight, layers for cold weather) / Drink plenty of fluids to avoid dehydration / Takes breaks as necessary to avoid heat/cold stress 10. Wear safety glasses

JSA Title:
JSA Number:

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
Additional items.		
Additional Items identified while in the field. (Delete row if not needed.)		

Print Name	Sign Name	Date
Prepared by:		
Reviewed by:		

APPENDIX C
Safe Drum Handling Techniques

SAFE DRUM HANDLING TECHNIQUES

PURPOSE

This procedure establishes general guidelines for the handling of drums and containers. OSHA 29 CFR 1910.120 has specific requirements for these types of projects. On sites where drums are handled, detailed drum handling procedures shall be developed and stated in the site-specific health and safety plan (HASP).

SCOPE

Applies to container handling operations at Langan Engineering & Environmental Services, Inc. (Langan) work sites.

RESPONSIBILITIES

Site Personnel - All site personnel must follow the procedures for safe handling of drums.

Health and Safety Coordinator (HSO) - The HSO must carefully consider these procedures in the preparation of any site-specific HASP.

Laboratory - The laboratory will conduct analyses of drum contents.

Site Manager - The site manager designated by the site-specific HASP must sign all completed drum data sheets to verify chain of custody.

PROCEDURES

General Information

Factors which must be considered before handling drums/containers on a hazardous waste site are outlined below:

1. The containers used during clean-up must meet the applicable DOT, OSHA, and EPA standards for the wastes that they contain.

2. Only DOT approved containers shall be used to overpack wastes.

3. Drums or containers shall be inspected prior to being moved. Inaccessible drums or containers shall be moved and inspected prior to further handling. Bulging or pressurized containers should not be manually disturbed.

4. Unlabeled containers shall be considered to contain hazardous substances and handled accordingly until the contents are identified and labeled. Additionally, it should be kept in mind that drums are frequently mislabled.

5. Site operations shall be organized to minimize drum or container movement.

6. Prior to movement of drums, all employees shall be warned of the potential hazards.

7. Where major spills may occur, a spill containment program shall be implemented to isolate the entire volume of hazardous substance being transferred.

8. A ground penetrating radar system or other type of detection device may be used to determine the location and depth of buried drums/containers.

9. Fire extinguishing equipment shall be on hand and ready to use.

Inspection

Appropriate procedures for handling drums varies depending on the drum contents. Prior to handling, drums should be visually inspected to identify their contents. Information that may be helpful includes:

- Symbols, words, or marks on the drum indicating that its contents are hazardous;
- Signs of deterioration such as corrosion, rust, and leaks;
- Signs that the drum is under pressure; and
- Configuration of the drumhead:
  - Whole lid removable (designed to contain solid material)
  - Has bungs (designed to contain a liquid)
  - Contains a liner (may contain highly corrosive or otherwise hazardous material)
- Drum types:
  - Polyethylene or PVC-lined (often contain strong acids or bases)
  - Exotic metal (aluminum, stainless steel, etc.) (expensive drums that usually contain an extremely dangerous material)
  - Single-walled used as pressure vessel (may contain reactive, flammable, or explosive substances)
  - Laboratory Packs (used for disposal of expired chemicals and process samples from a variety of institutions)

Planning

The results of the inspection can be used to develop a plan that specifies:

- The extent of container handling necessary
- The personnel assigned to the job
- The most appropriate procedures based on the hazards associated with the probable drum contents

Handling

The purpose of drum handling is to:

- Respond to any obvious problems that might impair worker safety
- Unstuck and orient drums of sampling
- If necessary, to organize drums into different areas on site to facilitate characterization and remedial action

Drum Opening

Drum and other containers, if possible should be opened in place since accidents can occur frequently during handling. To maximize worker safety during drum opening, the following should be adhered to:

- Keep personnel at a safe distance from the drums being opened;
- Conduct air monitoring during drum-opening activities;
- Use non-sparking bronze-beryllium tools when possible;
- Use remote-controlled devices for opening drums, when possible;
- Hang or balance the drum-opening equipment to minimize worker exertion;
- If the drum shows signs of swelling or bulging, perform all steps slowly and relieve excess pressure prior to opening;
- Open exotic metal drums and polyethylene or PVC-lined drums through the bung by removal or drilling;
- Do not open or sample individual containers within laboratory packs;
- Reseal open bungs and drill openings as soon as possible; and
- Decontaminate equipment after each use to avoid mixing incompatible wastes.

Drum Opening Equipment

The three basic techniques available for drum opening at hazardous waste sites include:

- Manual opening with non-sparking bung (or plug) wrenches;
- Drum deheading; and
- Remote-control devices:
    - Pneumatically operated impact wrench to remove drum bungs.
    - Hydraulically or pneumatically operated drum piercers
    - Backhoes equipped with bronze spikes for penetrating drum tops

The choice of drum opening techniques depends on the number of drums to be opened, their waste contents (if known), and their physical condition. Remote drum opening equipment should always be considered in order to protect worker safety, especially if the drums are damaged or corroded. Manual opening with bung wrenches or drum deheaders should be performed only with structurally sound drums with waste contents that are known to be nonreactive
and non-explosive. Picks, chisels, firearms, etc. will not be used to open drums.

APPENDIX D
Heat Stress

HEAT STRESS

Due to the increase in ambient air temperatures and the effects of protective outer wear deceasing body ventilation, there exists an increase in the potential for injury, specifically, heat casualties. Site personnel will be instructed in the identification of a heat stress victim, the First Aid treatment procedures for the victim and the prevention of heat stress casualties.

IDENTIFICATION AND TREATMENT

1. Heat Exhaustion

    a. Symptoms: Usually begins with muscular weakness, dizziness, nausea, and a staggering gait. Vomiting may be frequent. The bowels may move involuntarily. The victim is pale, his skin is clammy, and he may perspire profusely. The pulse is weak and fast, breathing is shallow. The victim may faint unless the victim lies down. This may pass, but sometimes it remains and death could occur.

    b. First Aid: Immediately remove the victim to the Personnel Decontamination Reduction Zone in a shady or cool area with good air circulations. Remove all protective outer wear. Call the local hospital for physician. Treat the victim for shock (Make victim lie down, raise feet 6-to 12-inches and keep warm but loosen all clothing.) If the victim is conscious, it may be helpful to sip an electrolytic solution. Transport victim to a medical facility as soon as possible.

2. Heat Stroke

    a. Symptoms: This is the most serious of heat casualties due to the fact that the body excessively overheats. Body temperatures often are between 107° to 110°F. First there is often pain in the bead, dizziness, nausea, oppression, and the skin is dry, red and hot. Unconsciousness follows quickly and death is imminent if exposure continues. The attack will usually occur suddenly.

    b. First Aid: Immediately evacuate the victim to a cool and shady area in the Contamination Reduction Zone. Remove all protective outer wear and all personal clothing and decontaminate the victim. Lay victim on their back on a clean sheet or blanket with the head and shoulders slightly elevated. It is imperative that the body temperature be lowered immediately. This can be accomplished by applying cold wet towels, ice bags, etc. to the head and body. Sponge off the bare skin with cool water or rubbing alcohol, if available, or even place victim in a tub of cool water. The main objective is to cool the victim without chilling him. Give no stimulants. Transport the victim by ambulance to a medical facility as soon as possible.

PREVENTION OF HEAT STRESS

1. One of the major causes of heat casualties is the depletion of body fluids. On the site there will be plenty of fluids available. Personnel should replace water and salts loss from sweating. Salts can be replaced by drinking a commercial mix of electrolytes and nutrients such as Gatorade. If drinking Gatorade for extended periods of time, the Gatorade should be mixed at 50 percent of normal strength.

2. A work schedule should be established so that the majority of the work day will be during the morning hours of the day before ambient air temperature levels reach their highs.

3. A work/rest guideline will be implemented for personnel required to wear Level B or Level C protection. These guidelines are as follows:

Ambient Temperatures	Maximum Wearing Time
Above 90°F	1 hour
80° to 90°F	1-1/2 hours
70°to 80°F	2hours
60° to 70°F	3 hours
less than 60°F	4 hours

A sufficient period will be allowed for personnel to "cool down." This may require shifts of workers during operations.

HEAT STRESS MONITORING

For monitoring the body's recuperative ability to excess heat, one or more of the following techniques should be used as a screening mechanism. Monitoring of personnel wearing protective clothing should commence when the ambient temperature is 70°F or above. Frequency of monitoring should increase as the ambient temperature increases or if slow recovery rates are indicated. When temperatures exceed 80°F workers should be monitored for heat stress after every work period.

- Heart Rate (HR): should be measured by the radial pulse for 30 seconds. The HR, 5 minutes after the beginning of the rest period, should not exceed 120 percent of the normal "at rest" HR. If the HR is higher, the next work period should be shortened by 10 minutes (or 33 percent), while the length of the rest period stays the same. This process should be repeated until an acceptable HR is achieved.

- Body Temperature: should be measured orally with a clinical thermometer as early as possible in the resting period. Oral temperature (OT), taken 5 minutes after beginning of the rest period, should not exceed 1/2 degree above normal "at rest" OT. If it does, the next work period should be shortened by 10 minutes (or 33 percent),

while the length of the rest period stays the same. If the OT taken 5 minutes after the beginning of the next resting period exceeds 1/2 degree above normal “at rest’ OT, the following work cycle should be further shortened by 33 percent.

- Body Water Loss (BWL): due to sweating, body water loss should be measured by weighing the worker in the morning and in the evening. The clothing worn should be similar at both weighings; preferably the worker should be nude. The scale should be accurate to plus or minus 1/4 pound. BWL should not exceed 15 percent of the total body weight. If it does, workers should be instructed to increase their daily intake of fluids by the weight lost.

Ideally, body fluids should be maintained at a constant level during the work day.

Good hygienic standards must be maintained by frequent change of clothing and daily showering. Clothing should be permitted to dry during rest periods. Persons who notice skin problems should immediately consult medical personnel.

APPENDIX E
Cold Exposure

COLD EXPOSURE

Persons working outdoors in temperatures at or below freezing may be frostbitten. Extreme cold for a short time may cause severe injury to the surface of the body, or result in profound generalized cooling, causing death. Areas of the body which have high surface area-to-volume ratio such as fingers, toes, and ears, are the most susceptible.

EFFECTS OF COLD EXPOSURE

Two factors influence the development of a cold injury: ambient temperature and the velocity of the wind. Wind chill is used to describe the chilling effect of moving air in combination with low temperature. For instance, 10°F with a wind of 15 miles per hour (mph) is equivalent in chilling effect of still air at -18°F.

As a general rule, the greatest incremental increase in wind chill occurs when a wind of 5 mph increases to 10 mph. Additionally, water conducts heat 240 times faster than air. Thus, the body cools suddenly when chemical-protective equipment is removed if the clothing underneath is perspiration soaked.

Local injury resulting from cold is included in the generic term frostbite. There are several degrees of damage. Frostbite of the extremities can be categorized into:

- Frost Nip or Incipient Frostbite: characterized by suddenly blanching or whitening of skin.

- Superficial Frostbite: skin has a waxy or white appearance and is firm to the touch, but tissue beneath is resilient

- Deep Frostbite: tissues are cold, pale, and solid; extremely serious injury.

To administer first aid for frostbite, bring the victim indoors and re-warm the areas quickly in water between 30°C and 41°C (102°F to 105°F). Give a warm drink – not coffee, tea or alcohol. The victim should not smoke. Keep the frozen parts in warm water or covered with warm clothes for 30 minutes, even though the tissue will be very painful as it thaws. Then elevate the injured area and protect it from injury. Do not allow blisters to be broken. Use sterile, soft, dry material to cover the injured area. Keep victim warm and get immediate medical care. After thawing, the victim should try to move the injured areas a little, but no more than can be done alone, without help.

- Do not rub the frostbitten part (this may cause gangrene).

- Do not use ice, snow, gasoline or any thing cold on frostbite.

- Do not use heat lamps or hot water bottles to re-warm the part.

- Do not place the part near a hot stove.

Systemic hypothermia is caused by exposure to freezing or rapidly dropping temperature, symptoms are usually exhibited in five stages; (1) shivering; (2) apathy, listlessness, sleepiness, and (sometimes) rapid cooling of the body to less than 95°F; (3) unconsciousness, glassy stare, slow pulse, and slow respiratory rate; (4) freezing of the extremities; and, finally (5) death.

As a general rule, field activities should be curtailed if equivalent chill temperature (ºF) is below zero unless the activity is of an emergency nature. The ultimate decision for proposing a work day at a site due to inclement weather rests with the Site Safety Officer or the HSO.

APPENDIX F
Safety Briefing Form

HASP COMPLIANCE AGREEMENTS

All Langan field personnel and subcontractors will sign this HASP Compliance Agreement indicating that they have become familiar with this HASP, and that they understand it and agree to abide by it.

Printed Name	Signature	Company	Date

APPENDIX G
Employee Exposure/Injury Incident Report

INCIDENT REPORT

LANGAN EMPLOYEE EXPOSURE/INJURY INCIDENT REPORT
(Submit a Separate Report for Each Employee and/or Incident)

Date: _____

Employee Name:_____ Employee No:_____

Sex: M _____ F _____ Age: _____

Region: _____ Location:_____

Project: _____ Project No: _____

Incident:_____

Type: Possible Exposure _____ Exposure _____ Physical Injury _____

Location: _____

Date of Incident: _____ Time of Incident: _____

Date of Report Incident: _____

Person(s) to Whom Incident was Reported: _____

Weather Conditions During Incident: Temperature _____ Humidity _____

Wind Speed and Direction: _____ Cloud Cover: _____

Clear: _____ Precipitation: _____

Materials Potentially Encountered: _____

Chemical (give name of description - liquid, solid, gas, vapor, fume, mist):

_____

_____

Radiological:_____

Other: _____

Nature of the Exposure/Injury: (State the nature of the exposure/injury in detail and list the parts of the body affected. Attach extra sheets if necessary).

_____

_____

_____

_____

_____

Did you receive medical care? Yes _____ No _____ If so, when _____

Where? On-Site _____ Off-Site _____

By Whom: Name of Paramedic: _____

Name of Physician: _____

Other: _____

If Off-Site, name facility (hospital, clinic, etc):_____

_____

Length of stay at the facility?_____

Was the Site Safety Officer contacted? Yes _____ No _____ When?_____

Was the Corporate Health and Safety Officer contacted? Yes _____ No _____

If so, who was the contact?_____

Did the exposure/injury result in permanent disability? Yes _____ No _____

If so, explain:_____

_____

_____

_____

Has the employee returned to work? Yes _____ No _____

List the names of other persons affected during this incident:

_____

_____

_____

_____

List the names of persons who witnessed the exposure/injury incident:

_____

_____

_____

_____

_____

_____

_____

Possible cause of the exposure/injury incident: _____

_____

_____

_____

_____

_____

What was the name and title of the field team leader or immediate supervisor at the site of the incident?

_____

Was the operation being conducted under an established Health and Safety Plan?

Yes _____ No _____ If yes, attach a copy. If no, explain

_____

_____

_____

_____

Describe protective equipment and clothing used by the employee:

_____

_____

_____

_____

_____

_____

Did any limitations in safety equipment or protective clothing contribute to or affect exposure? If so, explain:

_____

_____

What was the employee doing when the exposure/injury occurred? (Describe briefly as Site Reconnaissance, Site Characterization, or Sampling, etc.):

_____

_____

_____

_____

_____

_____

Where exactly on site or off site did the exposure/injury occur?

_____

_____

_____

_____

_____

How did the exposure/injury occur? (Describe fully what factors led up to and/or contributed to the incident):

_____

_____

_____

_____

_____

Name of person(s) initiating report, job title, phone number:

_____

_____

_____

_____

_____ _____

Employee Signature Date

_____ _____

Site Safety Officer Signature or Field Team Leader Signature Date

Q:\Other|HealthandSafety|GenericAppendixF-IncidentReport

APPENDIX D

Field Forms

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

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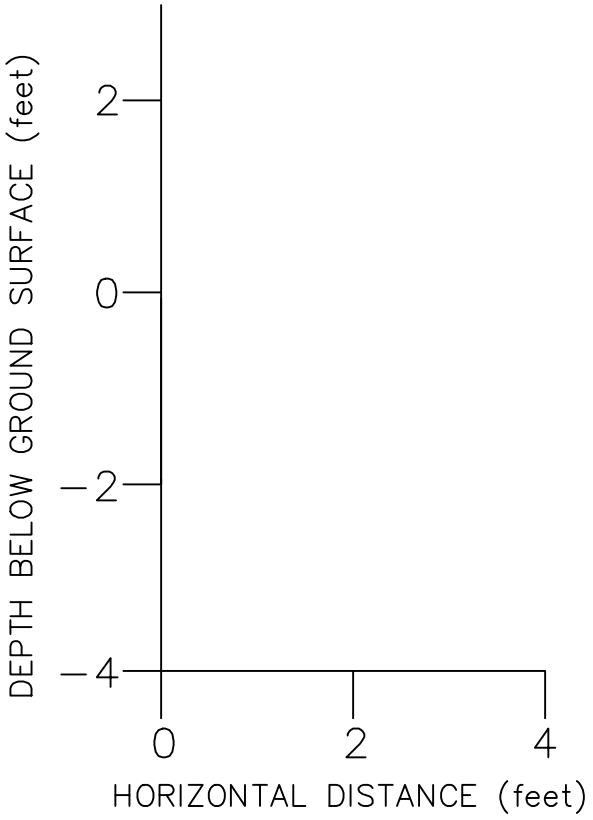
PROJECT		PROJECT NO.	
LOCATION		ELEVATION AND DATUM	
DRILLING AGENCY		DATE STARTED	DATE FINISHED
DRILLING EQUIPMENT		COMPLETION DEPTH	ROCK DEPTH
SIZE AND TYPE OF BIT		BACKFILL MATERIAL	
CASING	Diameter (in) Depth (ft)	NO. SAMPLES / DIST. / UNDIST. / CORE	
CASING HAMMER		WATER LEVEL / FIRST / COMPL. / 24 HR	
SAMPLER		FOREMAN	
SAMPLER HAMMER		INSPECTOR	

MATERIAL SYMBOL	SOIL TYPE	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES: NO. LOC	SAMPLES: TYPE	SAMPLES: RECOV./FT.	SAMPLES: PENETR. RESIST BL/6 IN.	REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
			1 2 3 4 5 6 7 8 9 10 11 12 13 14					

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TEST PIT

X



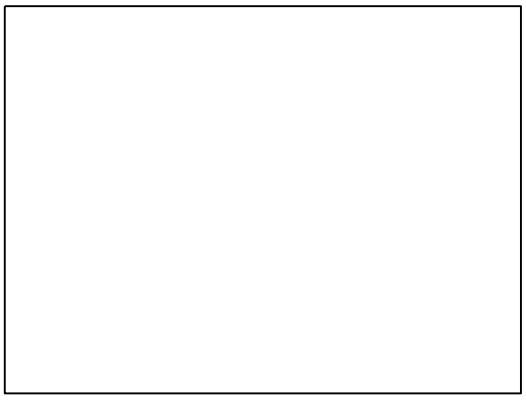


Photo 1: TEST PIT #

KEY TO SYMBOLS:

(1) KEY 1

NOTES:

1. NOTE 1
2. NOTE 2

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Project	Figure Title	Project No.	Figure No.
X CITY COUNTY CALIFORNIA	TEST PIT TITLE	X Date: XX MONTH 2017 Scale: AS SHOWN Drawn By: X	TP-#

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Filename: C:\Users\joehanna\Desktop\8.5x11 Test Pit Template (Portrait).dwg Date: 7/18/2017 Time: 13:14 User: joehanna Style Table: Langan.stb Layout: 8.5x11 Test Pit Template

PROJECT NO: **PROJECT:** **LOCATION:**	**CLIENT:**	**DATE:** **WEATHER:** **TIME:**

CONTRACTOR & EQUIPMENT: •	**PRESENT AT SITE:**

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.

To: cc:	By:

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PROJECT NO: **PROJECT:** **LOCATION:**	**CLIENT:**	**DATE:** **WEATHER:** **TIME:**

Photograph 1:

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PROJECT NO: **PROJECT:** **LOCATION:**	**CLIENT:**	**DATE:** **WEATHER:** **TIME:**

Photograph 2:

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PROJECT NO: **PROJECT:** **LOCATION:**	**CLIENT:**	**DATE:** **WEATHER:** **TIME:**

Photograph 3:

Photograph 4:

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Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page of

PAL WO#:

Client Name	
Address	
Project Manager	
Email	
Phone	
Project Name/Number	
P.O. Number	
Sampled By	

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	**STD**	**RUSH**		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY

Signature:	**DATE:**
Print:	
Company:	**TIME:**

RECEIVED BY

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Company:	**TIME:**

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)

****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)

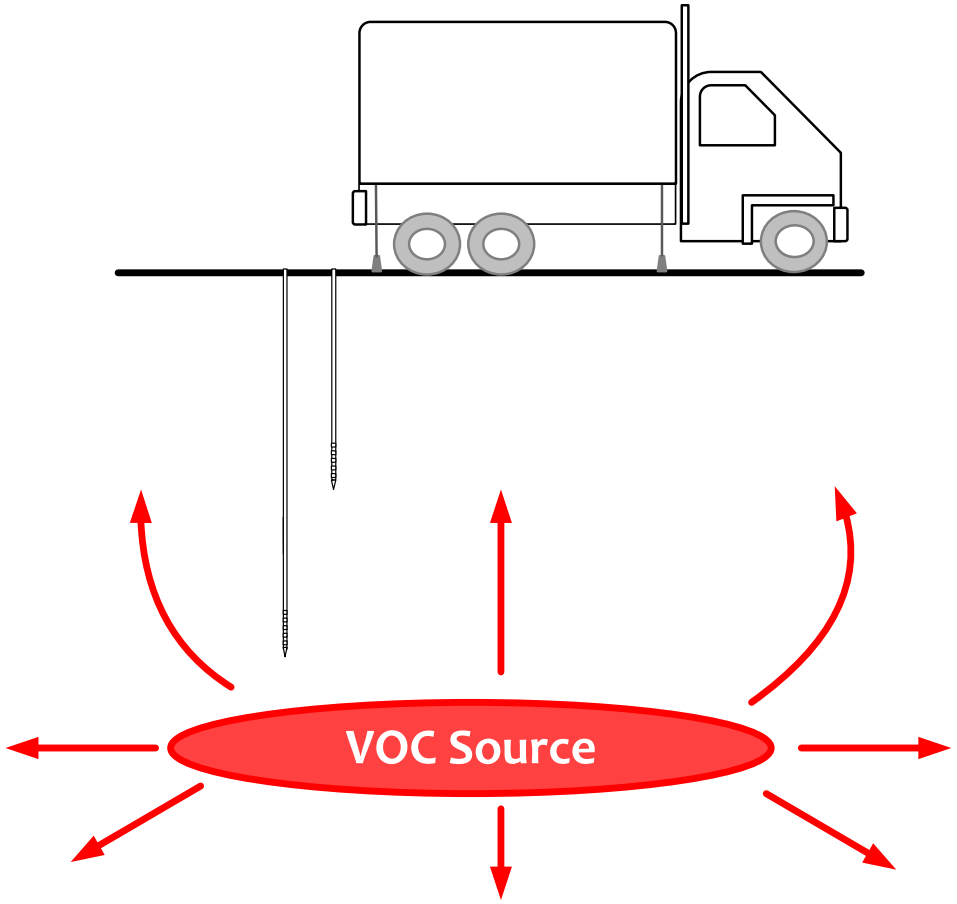
****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate) G-2291

DRAFT

APPENDIX E

DTSC Active Soil Gas Investigation (July 2015)

ADVISORY
ACTIVE SOIL GAS INVESTIGATIONS



California Environmental Protection Agency
Department of Toxic Substances Control
Los Angeles Regional Water Quality Control Board
San Francisco Regional Water Quality Control Board

July 2015

FOREWORD

In a coordinated effort, the Department of Toxic Substances Control, the Los Angeles Regional Water Quality Control Board, and the San Francisco Regional Water Quality Control Board have jointly developed the *Advisory – Active Soil Gas Investigations*. This document attempts to ensure that high quality data used for regulatory decision making are collected during active soil gas investigations using consistent methodologies. The document was reviewed by other government organizations and the regulated community. Their comments were considered and the Advisory changed in response to those comments. The Advisory also addresses recent developments in the field of soil gas collection. As additional information and experience are obtained, this Advisory may be modified as appropriate.

The information in the Advisory should not be considered as regulations. Mention of trade names or commercial products does not constitute the agency endorsement or recommendation.

If you have any questions or comments regarding this document, please contact Theodore Johnson of DTSC at via email at tjohnson@dtsc.ca.gov.

ACKNOWLEDGMENTS

April 2012 Version

Preparation of this Advisory was achieved through the efforts of the following individuals at the California Environmental Protection Agency:

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Also, David Berry, Ken Chiang, Rebecca Chou, Bryan Eya, Jeffrey Hu, and Christine Papagni provided invaluable assistance in the revision of this document. The California Environmental Protection Agency thanks them for their efforts.

This document was developed jointly under the direction of Debbie Raphael, Director, Department of Toxic Substances Control, Samuel Unger, Executive Officer, Los Angeles Regional Water Quality Control Board, and Bruce Wolfe, Executive Officer, San Francisco Regional Water Quality Control Board. Without their support, completion of this document would not have been possible.

July 2015 Version

The Advisory was revised to address recent developments in the field of soil gas collection. The Soil Gas Workgroup thanks all contributors for their efforts which improved the Advisory through their thoughtful observations.

---

1 Currently with United States Environmental Protection Agency Region X.

2 Currently with California Air Resources Board.

TABLE OF CONTENTS

Page

FOREWORD ii
ACKNOWLEDGMENTS iii
ACRONYMS vii

1.0 INTRODUCTION 1

2.0 INITIAL PROJECT PLANNING AND WORKPLAN DEVELOPMENT 2
2.1 Study Purpose and Data Quality Objectives 2
2.2 Technical Documents 3
2.3 Workplan 3
2.3.1 Elements of the Workplan 3
2.3.2 Conceptual Site Model 4
2.3.3 Sampling and Analysis Plan 5
2.4 Soil Gas Investigation Reports 6

3.0 SOIL GAS INVESTIGATION DESIGN 7
3.1 Location, Spacing and Depth 7
3.1.1 Lithology 7
3.1.2 Sample Spacing 8
3.1.3 Sample Depth 8
3.2 Installation Procedures 9
3.2.1 Installation Methods and Design 9
3.2.2 Sampling Tubing 11
3.2.3 Drive Point Method 13
3.3 Soil Gas Well Completion 13
3.4 Decommissioning 14
3.5 Decontamination 15
3.6 Sub-Slab Investigation Methods 15
3.6.1 High Purge Volume Sub-Slab Sampling 17

4.0 SOIL GAS SAMPLE COLLECTION 20
4.1 Equilibration Time 20
4.2 Soil Gas Assembly Tests 21
4.2.1 Shut-In Test 21
4.2.2 Leak Test 21
4.2.2.1 Leak Check Compounds (Liquid) 21
4.2.2.2 Leak Check Compounds (Gaseous) 22
4.2.2.3 Leak Check Considerations 22
4.2.3 Purging 23
4.3 Purge/Sample Flow Rate and Applied Vacuum 24
4.3.1 Vacuum Pump 24

5.0 SAMPLE HANDLING AND TRANSPORT 24
5.1 Sample Containers 24
5.1.1 Syringes 25

5.1.2 Passivated Stainless Steel Canisters 25
5.1.3 Polymer Gas Sampling Bags or Glass Bulbs 25
5.1.4 Sorbent Tubes 26
5.1.5 Alternate Sample Containers 26
5.2 Field Conditions 26
5.2.1 Rainfall and Barometric Pressure (See Appendix G) 26
5.2.2 Wet Conditions 27
5.2.3 Soil Gas Sampling in Low-Permeability Soil 27
5.2.4 Drilling Refusal 28
5.3 Sample Container Handling 28
5.3.1 Syringes and Glass Bulbs 28
5.3.2 Sorbent Tubes 29
5.3.3 Polymer Gas Sampling Bags 29
5.3.4 Passivated Stainless Steel Canisters 29
5.4 Sample Container Cleanliness and Decontamination 29
5.5 Chain of Custody Records 30

6.0 ANALYSIS OF SOIL GAS SAMPLES 30
6.1 Target Compounds 30
6.1.1 Common Organic Compounds 30
6.2 Reporting Limits for Target Compounds 32
6.3 Quality Assurance/Quality Control 32
6.3.1 Sample Blanks 33
6.3.2 Field Duplicate/Replicate Samples 33
6.3.3 Laboratory Control Samples 34
6.3.4 Split Samples 34
6.3.5 Holding Times 34
6.4 Analytical Methods 34
6.5 Soil Gas Sample Analysis and Laboratory Reporting 39
6.5.1 Analytical Methods 39
6.5.2 Contaminant Reporting 39
6.5.3 Leak Check Compounds 39
6.5.4 Auto Samplers 39

7.0 METHANE AND HYDROGEN SULFIDE SAMPLING PROGRAMS 40
7.1 Methane 40
7.1.1 Methane Field Collection 40
7.1.2 Methane Laboratory Analysis 40
7.2 Hydrogen Sulfide 40
7.2.1 Sample Containers 41
7.2.2 Hydrogen Sulfide Field Collection 41
7.2.3 Precautions Particular to Hydrogen Sulfide 41

8.0 LABORATORY CERTIFICATION 42

9.0 REFERENCES 43

FIGURES

Figure 1 Typical Single and Multiple Soil Gas Probe Design 11
Figure 2 Sub-Slab Vapor Probe Typical Diagram 19
Figure C-1 Shroud Components C-3
Figure C-2 Shroud Components-Purge Conditions C-4
Figure G-1 Soil Drainage Curves (Gardner et al., 1970) G-23
Figure G-2 Soil Drainage Curves (Sisson et al., 1980) G-24

TABLES

Table 1 Soil Gas Sample Holding Time 34
Table 2 Preferred Analytical Methods and Modifications 36
Table B-1 Tubing Type Study Results B-2
Table E-1 Comparison of Methodologies E-6
Table F-1 USEPA Soil Gas Testing Methods F-3
Table F-2 Advantages and Disadvantages of Sample Introduction Techniques F-5
Table F-3 Advantages and Disadvantages of Modifications to TO-15 ..... F-9
Table F-4 Reporting Limits F-19

APPENDICES

Appendix A Passive Soil Gas Method
Appendix B Polymer Gas Sampling Bags and Tubing Types
Appendix C Quantitative Leak Testing Using a Tracer Gas
Appendix D Soil Gas Sampling in Low Permeability Soil
Appendix E Naphthalene Soil Gas Collection
Appendix F Soil Gas Analytical Method Review
Appendix G Barometric Pressure, Rainfall, and Soil Drainage
Appendix H Reporting Format and Parameters

ACRONYMS

AGSI	Active Soil Gas Investigation
AST	Aboveground Storage Tank
ASTM	American Society of Testing and Materials
BFB	Bromofluorobenzene
bgs	below ground surface
Cal/EPA	California Environmental Protection Agency
COPC	Chemical of Potential Concern
CSM	Conceptual Site Model
DQO	Data Quality Objective
DTSC	Department of Toxic Substances Control
ECD	Electron Capture Detector
ELAP	Environmental Laboratory Accreditation Program
EPA	Environmental Protection Agency
FID	Flame Ionization Detector
Freon 11	Trichlorofluoromethane
Freon 12	Dichlorodifluoromethane
Freon 113	1,1,2-Trichloro-1,2,2-Trifluoroethane
GC	Gas Chromatograph
GC/MS	Gas Chromatograph/Mass Spectrometer
CRWQCB	California Regional Water Quality Control Board
ITRC	Interstate Technology and Regulatory Council
LARWQCB	Los Angeles Regional Water Quality Control Board
LCS	Laboratory Control Samples
L-D PE	Low Density Polyethylene
μg/L	Microgram per Liter
μg/m^3	Microgram per Cubic Meter
MS	Mass Spectrometer
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MTBE	Methyl Tertiary Butyl Ether
mL/min	Milliliters per Minute
NELAP	National Environmental Laboratory Accreditation Program
NIST	National Institute of Standard and Technology
PAHs	Polycyclic Aromatic Hydrocarbons
PEEK	Polyetheretherketone
ppmv	Parts per Million by Volume
ppbv	Parts per Billion by Volume
PID	Photoionization Detector
PRT	Post-Run Tubing
RL	Reporting Limit
%RPD	Percent Relative Percent Difference
%RSD	Percent Relative Standard Deviation
PVC	Polyvinyl Chloride
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
SAP	Sampling and Analysis Plan
SIM	Selected Ion Monitoring

ACRONYMS (continued)

SOP	Standard Operating Procedure
SVOCs	Semi-Volatile Organic Compounds
SW-846	Solid Waste-846; USEPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods
TCE	Trichloroethylene or Trichloroethene
TICs	Tentatively Identified Compounds
TO-15	Toxic Organic-15 Analytical Method (USEPA, Compendium Method TO-15 for the Determination of Toxic Organic Compounds in Ambient Air)
TO-17	Toxic Organic-17 Analytical Method (USEPA, Compendium Method TO-17 for the Determination of Toxic Organic Compounds in Ambient Air)
TPH	Total Petroleum Hydrocarbons
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOA	Volatile Organic Analysis
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION

The Advisory – Active Soil Gas Investigations (ASGI or Advisory) provides technically defensible and consistent approaches for collecting and analyzing soil gas samples. This Advisory applies to both subsurface soil gas samples and soil gas samples collected in sub-slab areas under buildings. The Advisory is not a regulation. It does not impose any requirements or obligations on the regulated community. Rather, it provides a technical framework and reference for addressing soil gas sample collection and analysis. It is not intended to determine the need for soil gas samples, but rather to serve as a guide once a decision has been made to collect soil gas samples. Other technically equivalent procedures may exist. This Advisory is not intended to exclude alternative approaches or methodologies. The Advisory is a compilation of available information, knowledge, experience and best practices regarding soil gas sampling. The mention of trade names or commercial products in this Advisory is for illustrative purposes only, and does not constitute an endorsement or exclusive recommendation by the contributing government agencies.

Active soil gas sampling and analysis refers to the methods utilized to collect vapor phase data at sites potentially affected by volatile organic compounds (VOCs), chlorinated solvents, petroleum hydrocarbons, methane, hydrogen sulfide and semi-volatile organic compounds (SVOCs). The data obtained from a soil gas investigation can be used to identify the source and spatial distribution of contamination at a site or to estimate contaminant indoor air concentrations for risk assessment purposes. For sub-slab sampling, evaluating risk associated with vapor intrusion to indoor air, cleanup and mitigation approaches, along with the public outreach associated with vapor intrusion investigations, mitigations and remediations, consult the following DTSC documents:

- *Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* (October 2011) VIG [http://www.dtsc.ca.gov/AssessingRisk/upload/Final_VIG_Oct_2011.pdf]
- *Vapor Intrusion Mitigation Advisory Final Revision 1* (October 2011) VIMA [http://www.dtsc.ca.gov/SiteCleanup/upload/VIMA_Final_Oct_20111.pdf]
- *Vapor Intrusion Public Participation Advisory Final* (March 2012) VIPPA [http://www.dtsc.ca.gov/SiteCleanup/upload/VIPPA_Final_03_05_12.pdf]
- *Proven Technologies and Remedies Guidance – Remediation of Chlorinated Volatile Organic Compounds in Vadose Zone Soil* (April 2010) PTR [http://www.dtsc.ca.gov/SiteCleanup/upload/cVOC_040110.pdf]

The ASGI, along with the above-referenced documents, represents a “compendium” of guidance documents available to stakeholders for the evaluation of all aspects of vapor intrusion.

This document supersedes the 2012 and 2003 *Advisory – Active Soil Gas Investigations* (Cal/EPA, 2003) and 1997 LARWQCB *Interim Guidance for Active Soil Gas Investigations* (CRWQCB, 1997). It is the opinion of Cal/EPA that active soil gas investigations should be performed in accordance with this document. However, as noted above, other technically equivalent procedures may exist, and this Advisory is not intended to exclude alternative approaches or methodologies.

2.0 INITIAL PROJECT PLANNING AND WORKPLAN DEVELOPMENT

2.1 STUDY PURPOSE AND DATA QUALITY OBJECTIVES

A soil gas investigation may be undertaken for a number of different reasons and a single investigation may have multiple objectives. The data quality objectives (DQOs) for each investigation will vary according to the overall goals of each specific investigation. Examples of different purposes for performing a soil gas investigation are provided below:

1) Determining if discharges of contaminants have occurred which may impact indoor air, outdoor air and groundwater, such as leaks at aboveground storage tanks (AST), underground storage tanks (USTs) or other underground pollution sources;
2) Determining the spatial patterns and extent of vapor phase soil contamination,
3) Designing and monitoring the performance of a soil vapor extraction system;
4) Mapping soil vapor plumes to select buildings for indoor air monitoring;
5) Creating a data set for performing a vapor intrusion risk assessment using either generic attenuation factors or a mathematical model to estimate indoor air concentrations from soil gas data;
6) Remedy performance monitoring; and
7) Providing data for no-further-action determinations at impacted sites.

The DQO process is a systematic planning tool based on the scientific method for establishing criteria for data quality and for developing data collection procedures. By using the DQO process to plan environmental data collection efforts, the effectiveness, efficiency and defensibility of decisions can be improved. DQOs should be established before an investigation is started. Example input parameters to the DQOs include past, current and future land uses, regulatory action levels for contaminated media, laboratory method reporting limits, and the appropriate sample collection method. The expected output is the most resource-effective design for the study. Information concerning DQOs is provided in USEPA (1994a, 1994b, 2000a). A critical step in developing site-specific DQOs is the generation of a conceptual site model (CSM), discussed below in Section 2.3.2.

Within the subsurface, contaminants may exist in the following phases:

- Solid phase by adsorbing onto the organic fraction of soil;
- Aqueous phase by dissolving in groundwater and pore water;
- Non-aqueous phase liquid (NAPL); and/or
- Gaseous phase, by accumulating in the interstitial space of soil particulates as soil gas.

Thus, soil matrix and groundwater sampling and analysis should be considered for site characterization in addition to soil gas sampling to ensure that all potential phases of VOCs are evaluated and their associated exposure pathways. Soil gas sampling is

practical and preferred for many geologic materials, and, with care, can be successful in fine-grained soils.

2.2 TECHNICAL DOCUMENTS

Each soil gas investigation should have two technical documents: a workplan that describes the investigation in detail, and a report that summarizes the results of the investigation and the analysis of data. The workplan should incorporate the CSM and DQOs as a framework for the planned investigation. The CSM should be updated during the investigation as data gaps are addressed.

2.3 WORKPLAN

A workplan should be prepared and submitted to the regulating agency for review and approval according to the agreed upon schedule. Any variations or deviations from this Advisory should be specified in the workplan. The workplan should include a CSM, sampling and analysis plan (SAP), and DQOs. The decision making criteria for step-out sampling should be included in the workplan.

The workplan should have contingences to address unexpected field conditions, such as larger than anticipated contaminant plumes, low flow or no flow conditions, and resampling when anomalous data are obtained. Anomalous data are defined as data which are inconsistent with the CSM. Additional points may be required to resolve anomalies.

The regulating agency should be informed of any problems, unforeseen site conditions or deviations from the approved workplan. If modifications to the approved workplan are going to be implemented, the regulating agency should be notified and provided an opportunity to review the changes prior to implementation. Changes made without prior agency approval should be clearly documented in subsequent reports, including justification for these changes.

The project proponent should notify the regulating agency 10 working days prior to implementation of field activities. All necessary permits and utility clearances should be obtained prior to conducting any investigations described in this Advisory.

Project tasks and time lines, including dates anticipated for initiating and completing sampling activities, should also be included in the workplan or discussed with the agencies in writing.

2.3.1 Elements of the Workplan

Specific information that the regulating agencies will expect to see in a workplan include the following:

1) Site background, including known or inferred extent of contamination, potential or known areas of concern and pertinent features such as existing or former sumps,

trenches, utility corridors, drains, sewer lines, clarifiers, septic systems, piping, ASTs, USTs and waste management units, and surrounding land uses;

2) CSM (see Section 2.3.2);

3) SAP (see Section 2.3.3);

4) A statement of the investigation objectives relative to the site-specific DQOs;

5) A statement as to whether permanent or temporary soil gas wells or sub-slab probes are to be installed.[3] See DTSC's Vapor Intrusion Guidance concerning the need for the installation of permanent soil gas wells;

6) A statement as to whether a mobile and/or stationary laboratory will be used, and the rationale for making this decision;

7) A geological cross-section of the site showing the major lithologic units and zones for vapor monitoring;

8) Procedures to properly decommission soil gas wells to effectively prevent cross-contamination in the subsurface;

9) A project-specific quality assurance project plan (QAPP) for the project if no existing approved QAPP is applicable;

10) Procedures for handling and disposing of investigation-derived waste in accordance with federal, state and local agency requirements; and

11) A site-specific Health and Safety Plan.

2.3.2 Conceptual Site Model

A CSM is an integral part of all site investigations. The purpose of a CSM is to provide a conceptual understanding of the potential for exposure to hazardous contaminants at a site based on:

- Sources of contamination;
- Release mechanisms;
- Transport media;
- Exposure pathways; and
- Potential receptors.

The CSM also aids in the justification for the number, location and frequency of samples. The CSM should consist of descriptive text and diagrammatic or schematic figures relating the sources of contamination to receptors and the environment. The

3 The term "vapor probe", "soil gas probe", "soil gas monitoring well", and "soil vapor well" are considered equivalent and are used interchangeably within this Advisory.

CSM organizes and communicates information about the site characteristics and provides all interested parties with an understanding of the potential for exposure to chemicals of potential concern (COPCs) at a site. Resources regarding CSMs include: (1) SWRCB, 2012; (2) DTSC, 2011; (3) ITRC, 2007; (4) DTSC, 1994; (5) USEPA, 1994; (6) USEPA, 1989; and (7) USEPA, 1988.

The basic components of a CSM are:

1) Type of contaminants, including VOCs, currently or previously stored or handled at the site, to develop a site-specific target analyte list;
2) Known concentrations of COPCs in media such as soil gas, soil and groundwater;
3) Identification of the primary and secondary sources of COPCs;
4) Location, depth, and phase(s) of COPCs;
5) Primary release mechanism;
6) Exposure media such as surface soil, drinking water and air;
7) Potential human and ecological receptors and groundwater; and
8) Unique site features.

The CSM is a dynamic and iterative tool, and is updated as new information becomes available. Therefore, it should be reviewed after each stage of investigation and revised as appropriate.

The following information should be considered to identify contaminant sources, potential release mechanism(s) and pathway(s) for vapor migration:

- Soil types;
- Subsurface geology;
- Hydrogeology (local and regional), including depth to groundwater and groundwater flow direction;
- Subsurface heterogeneity;
- Preferential pathways, such as fractures, sand lenses, and utility corridors;
- Groundwater quality data;
- Contamination plume extent;
- Well records;
- Boring logs;
- Building construction details; and
- Surficial features of the area, such as ground cover and surface water bodies.

A CSM should be supported by contaminant plume maps and geological cross sections. The narrative description should clearly describe known site conditions and state what assumptions were made to generate the CSM.

2.3.3 Sampling and Analysis Plan

The SAP should specify all procedures and techniques used for soil gas sample collection, shipment, analytical procedures and chain of custody documentation. Field personnel should follow the SAP while collecting and analyzing soil gas samples.

Generally, the SAP should contain:

- Sample location and frequency;
- Pre-sampling activities;
- Schematic diagram of well design;
- Schematic diagram of sampling train;
- Sample equipment and collection procedures;
- Sample handling and analytical methods;
- Contaminant analyte list;
- Chain of custody control and records management;
- Field instrument and laboratory detection limits;
- Field and laboratory quality assurance/quality control (QA/QC); and
- Evaluation of data quality.

The SAP should contain a QAPP describing the policy, organization, activities and protocols necessary to achieve the DQOs dictated by the intended use of the data. The QAPP should include the following applicable information:

- Project description, management/organization and responsibilities;
- Quality assurance objectives;
- Sampling, calibration and analytical procedures;
- Data acquisition, reduction, validation and reporting;
- Documentation;
- Internal quality control;
- Performance and systems audits;
- Preventative maintenance;
- Data assessment procedures;
- Corrective actions; and
- Quality assurance reports.

2.4 SOIL GAS INVESTIGATION REPORTS

A soil gas investigation report should be submitted to the regulating agency at the conclusion of the investigation. Electronic data files should be submitted in accordance with the electronic data format requirements of the oversight agency.

Reports should include the following information:

- Description of field operations (including shut-in testing and leak check compounds, and purge volume data);
- Analytical methods used;
- Analytical results;
- Analysis and revision of the CSM based on data obtained from the soil gas investigation;
- Deviations from the approved workplan;
- Data inconsistencies;

- Data gaps identified based on the revised CSM; and
- Conclusions and recommendations.

Additionally, the following tables and diagrams should be included in the Report:

1) Site plan and sample location maps;

2) Plume maps and geologic cross sections with isoconcentration contours displaying the limits of contamination. Data from previous investigations may be included provided the data are presented in a way that distinguishes them from the current investigation;

3) Boring logs;

4) Construction diagrams for soil gas wells;

5) Summary tables for analytical data;

6) Legible copies of field and laboratory notes or logs;

7) All analytical results and QA/QC information including tables and explanation of procedures, results, corrective actions and effect on the data;

8) All raw data including chromatograms and calibration data if specifically requested by the regulating agency; and

9) Electronic data deliverables submitted in the format specified by the regulating agency.

All engineering or geologic work should be performed or supervised by a California Registered Professional in accordance with the Business and Professions Code, chapters 7 and 12.5, and the California Code of Regulations, title 16, chapters 5 and 29.

3.0 SOIL GAS INVESTIGATION DESIGN

The number, location and depth of soil gas samples should be based on the CSM and the project-specific DQOs, as well as the following general guidelines.

3.1 LOCATION, SPACING AND DEPTH

Subsurface contamination should be delineated three-dimensionally. Vertical soil gas delineation is achieved by collecting soil gas samples at varying depths in a single location, or by using closely spaced soil gas wells installed at varying depths.

3.1.1 Lithology

Locations and depths for soil gas monitoring wells should be based on site-specific lithologic information. If on-site lithologic information is not available prior to conducting

the soil gas investigation, one or more continuously cored boring(s) should be installed at the first location to the proposed greatest depth of the soil gas investigation. If the soil gas data are to be used for human health risk assessment, geotechnical data may be needed. Geotechnical information needed for vapor intrusion risk assessment purposes can be found in DTSC's Vapor Intrusion Guidance (DTSC, 2011).

Lithologic logs should be prepared for all borings, including soil matrix and geotechnical borings. Information gathered from the continuously cored borings may include lithologic descriptions, geotechnical data and contaminant data. Information collected from borings should be used to update the CSM. All boring logs generated during the soil gas survey should be provided to the regulating agency.

3.1.2 Sample Spacing

Sample locations may be based on historical site use and potential contaminant release points. Initial spacing can be grid-based such as sampling on a 50- by 50-foot grid. Alternatively, initial sampling can be based on historical or suspected site use. When areas of contamination are identified, a more focused grid spacing or biased sampling approach may be employed. Use a close interval grid or radial or step-out sampling pattern such as 10- to 20-foot grid pattern and multi-level sampling at 5-, 10-, 15-feet vertically to delineate identified contaminant areas. If historical information for the area is unknown, a screening grid pattern, such as 100- by 100-foot, may be used.

3.1.3 Sample Depth

All available information such as boring logs and field instrument readings from soil cuttings or cores should be used to select the correct depths to collect soil gas samples. Probes should be installed at depths with elevated vapor readings. Vertical sampling should continue until vapor-phase contaminants are no longer encountered. If vertical characterization to groundwater is needed, the deepest soil gas sample should be collected near the capillary fringe. Soil gas wells or probes should not be installed too close to the water table because low flow conditions might be encountered due to the high moisture content. Nested soil gas wells may be installed in the annular space of groundwater monitoring wells to serve as a dual-purpose well if both vapor and groundwater monitoring are required.

Soil gas sample depths should be chosen to minimize the effects of changes in barometric pressure and temperature, breakthrough of ambient air from the surface, and to ensure that representative samples are collected. Soil gas samples collected at less than 5 feet below ground surface (bgs) may be subject to barometric pressure effects and prone to breakthrough of ambient air through the soil column and, hence, samples are not typically collected from depths of less than five feet unless site-specific conditions dictate otherwise. Consideration should be given to source location, types of chemicals of concern and the lithology encountered. Variation of sample depths and the need for deeper sample locations should be evaluated based on site-specific characteristics and DQOs.

When evaluating vapor intrusion, sampling soil gas immediately adjacent to a building's foundation is only appropriate if the samples are collected near the contaminant source.

Soil gas samples collected immediately above the source of contamination are more likely to be representative of what may be in contact with the building's foundation (Hers et al., 2006; DiGiulio and Cody, 2006; and USEPA, 2012). Likewise, the numerical modeling conducted by Abreu and Johnson (2005), Abreu and others (2006), and Bozkurt and others (2009) also suggests this relationship. Hence, risk estimates may be biased low if quantified with shallow soil gas measurements when using the Johnson and Ettinger (1991) model. Maximum subsurface concentrations, or soil vapor concentrations representative of source conditions, should be used for preliminary vapor intrusion screening evaluations. A five foot deep sample is not appropriate if there is a deeper source. Accordingly, collecting soil gas samples near contaminant sources is recommended for vapor intrusion modeling. Vertical soil gas sampling should be conducted to determine the source of subsurface contamination. Ideally, numerous vertical profiles of soil gas should be developed at the site to accurately locate subsurface sources. Once located, soil gas collection can be targeted at these depths site-wide. Typically, contaminant sources are adjacent to the areas of highest subsurface concentration.

3.2 INSTALLATION PROCEDURES

Soil gas well installation procedures are described below. Soil gas well construction should ensure a good seal between the formation and sampling assembly, and minimize ambient air breakthrough. Additional standards may be required by local oversight agencies.

3.2.1 Installation Methods and Design

Soil gas wells may be installed using a variety of drilling methods such as direct push, hollow stem auger or hand auger. Certain drilling methods that significantly disrupt soil gas equilibrium, such as air rotary and rotosonic, may be employed if longer equilibration times are used prior to sampling. The mud rotary drilling method is not acceptable for soil gas probe emplacement under any circumstances. Following is a step-by-step guide to soil gas well (probe) installation after the borehole has been drilled:

1) Sand Pack. Install a sand pack to minimize disruption of airflow to the sampling tip. A tremie pipe should be used for soil gas wells deeper than 15 feet to avoid bridging or segregation during placement of the sand pack and annular seal. Place the probe tip midway in the sand pack, as shown on Figure 1 with at least six inches of sand above and below the probe tip.

2) Transition Seal. Emplace at least six inches of dry granular bentonite on top of each sand pack, as shown on Figure 1. Granular bentonite is preferred over bentonite in powdered or pellet form for the sand pack / annular seal transition. Following the dry bentonite, fill the borehole to the surface with an appropriate annular sealing material (see below). The purpose of the dry granular bentonite between the sand pack and the annular seal is to prevent water and clay from the annular seal infiltrating into the sand pack. A tremie pipe should be used for the emplacement of the transition seal in soil gas wells that are deeper than 15 feet, otherwise the material can be gravity fed (freefall) from the surface.

3) Annular Seal. The composition of the annular seal is a function of the long-term use of the soil gas well, as follows:

- Temporary Soil Gas Wells. For wells that will be sampled for less than one year, the annular seal can be hydrated bentonite or other materials, as appropriate. Studies have shown that bentonite annular seals in the vadose zone desiccate readily and will not rehydrate once damaged (Lackey et al., 2009). Hence, bentonite-only annular seals are discouraged for long-term use. The integrity of a bentonite annular seal can be increased by adding sand to the grout mixture as indicated by Lackey (2009).

- Permanent Soil Gas Wells. For wells that will be used for longer than one year, the annular seal should be neat cement with bentonite. Typically, the bentonite content is 1 – 5 percent. The integrity of a neat cement annular seal can be increased by adding sand to the grout mixture as indicated by Lackey (2009).

When using a bentonite seal on a temporary soil gas well, the bentonite should be hydrated at the surface in a container and then slowly poured or pumped into the borehole. If the borehole is deeper than 15 feet, a tremie pipe should be used to place the hydrated bentonite.[4]

It is important to have a good annular seal to prevent "short circuiting" of air from the upper portions of the borehole into the sample, yielding contaminant concentrations not indicative of the targeted interval. Follow a similar procedure for deep well construction with multiple probe depths, in that one foot of dry granular bentonite should be emplaced on top of the sand pack encasing each probe, followed by the annular sealing material. The annular seal should continue until the next sand pack, as shown on Figure 1. Accordingly, soil gas probe construction should be consistent with California Department of Water Resources Bulletin 74-90 (California Well Standards) (DWR 1991) and the annular seal should be appropriate for the local climate, subsurface conditions, and permanence of the soil gas well.

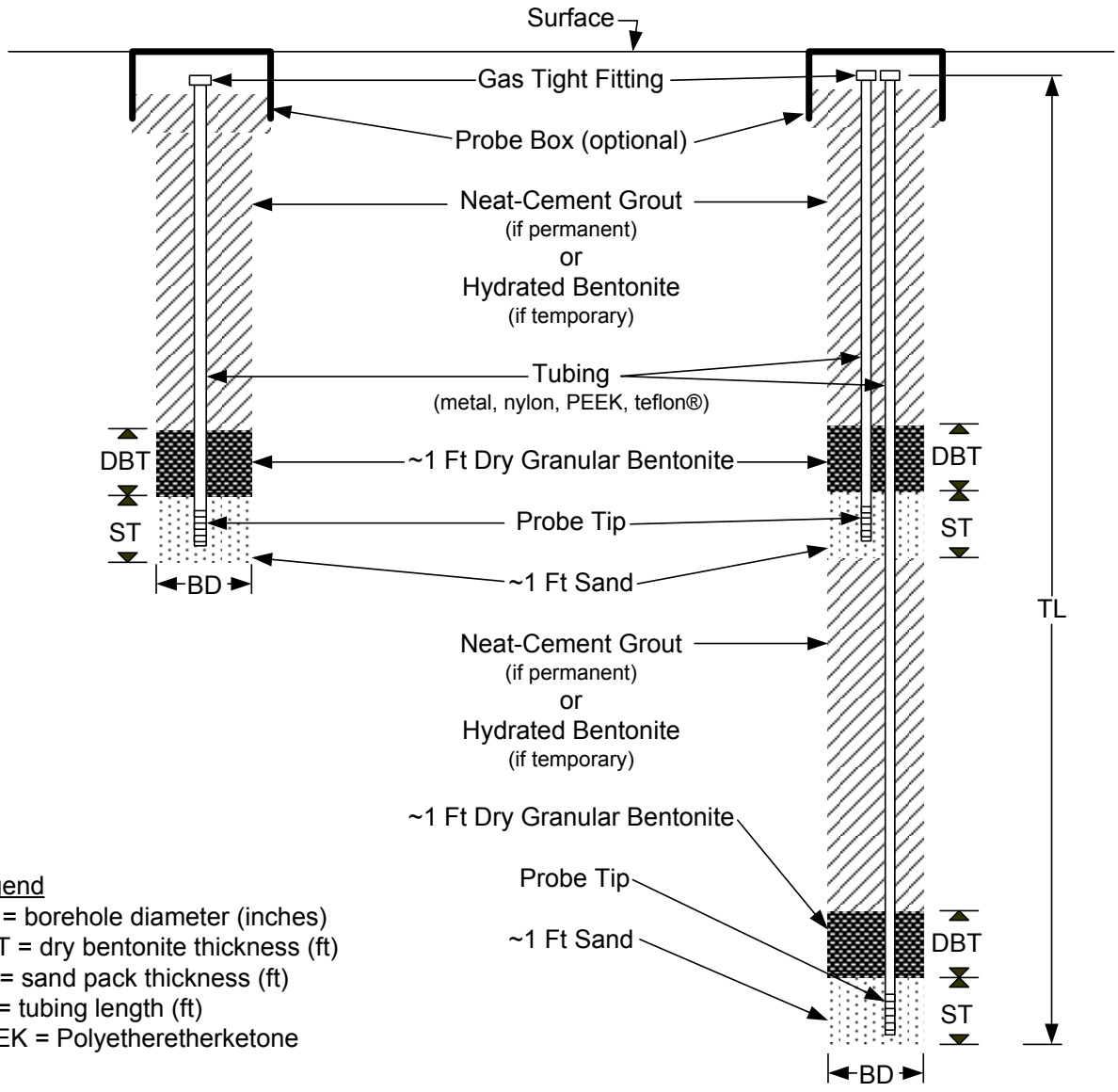
4) Probe Support Rod. A down-hole rod should be used to support the well tubing in the borehole. A down-hole rod is a support device used in boreholes deeper than 15 feet to ensure that probe tips are placed at appropriate depths. A small diameter PVC pipe that is capped at both ends is the most commonly used material for probe support. The probe support is created by attaching the probe tip and tubing to the exterior of the PVC pipe. Other materials may be used, such as metal, as long as the support rod is free of contaminants. Depending on the depth, centralizers may be necessary to ensure the support rod is in the center of the borehole. Alternative probe support designs with accompanying descriptions may be proposed in the project workplan. Justification should be

4 The protocol for the placement of the hydrated bentonite is similar to the approach in USEPA (2014).

included in the project workplan if the project proponent chooses not to use probe support for deep soil gas wells.

Figure 1

Typical Single and Nested Soil Gas Probe Design



Neat-Cement Grout means a mixture in the proportion of 94 pounds of Portland cement and not more than 6 gallons of water. Bentonite up to 5 percent by weight of cement (4.7 pounds of bentonite per 94 pounds of Portland cement) may be used to reduce shrinkage.

3.2.2 Sampling Tubing

Small diameter (1/8 to 1/4 inch) tubing is typically used for probe construction, made of material which will not react or interact with site contaminants. At sites where soil

moisture is high and/or finer-grained materials are present, larger diameter tubing, up to 3/4-inch, may also be used. Using larger diameter tubing is less susceptible to plugging by high soil moisture and fine-grained materials. The same soil gas sampling protocols for smaller tubing apply to the larger tubing. The probe tip, probe and probe connectors should all have the same diameter to provide a good seal between the formation and the sampling assembly. The following steps will help ensure a good-quality soil gas sample.

- Clean, dry tubing should be used at all times. If any moisture or unknown material is present in the tubing prior to insertion, decontaminate or replace the tubing;

- The bottom-end of the tubing should be attached to a soil gas probe tip. Downhole equipment (probe screens, tie wires, etc.) or drive heads should be free of cutting oils and other contaminants;

- Metal tubes should not be used to collect hydrogen sulfide samples. Nylaflow®, polyetheretherketone (PEEK), and Teflon® are recommended for soil vapor sampling. Low-density polyethylene (L-D PE) should not be used due to decreased performance relative to other tubing types in both off-gassing of VOCs inherent in the tubing structure (contribution to background) and for decreased contaminant recovery (reactivity). Reduced recovery of naphthalene was observed when using Nylaflow® tubing with small sample sizes. For additional information, see Appendix B;

- Prior to sampling, an assembled soil gas probe, tip and tubing should be blank tested at a frequency of one analysis per new batch of tubing or material used. Demonstration of equipment cleanliness enhances the quality of soil gas data. The need for blank testing of tubing, probe tips, or an assembled soil gas probe should be evaluated through the DQO process. Demonstrating cleanliness is needed because even new, unused, tubing may be stored inappropriately, such as near fuel sources or exhaust ports. Likewise, probe tips may contain residual oils from the manufacturing process. Some common ways of blank testing are as follows:

    a. Coiled Tubing. Spools of tubing can be blank tested by collecting a sample of the dead air within the tubing. The tubing should not be purged prior to sampling and the sampling volume should be less than the dead space within the tubing. The air should be analyzed for site constituents. The air sample from the coiled tubing can be collected by either the field crew or by laboratory personnel prior to taking the tubing to the site.

    b. Assembled Soil Gas Probe. A soil gas probe can be assembled and then blank tested prior to insertion into the subsurface. A length of tubing representative of the maximum sampling depth for the site should be cut from the tubing spool and a probe tip attached to one end. Pressure gauges, fittings and valves can also be attached as appropriate. A sample of dead air from the probe should be collected in the same manner as when

collecting a soil gas sample. The sampling volume should not exceed the dead space in the probe. This testing can be conducted in the field or by the stationary or mobile laboratory prior to using the tubing. If conducted by a stationary laboratory, the dead air in the assembled probe may be replaced by zero-grade air and this zero-grade air may be tested;

c. Probe Tips. Probe tips can be blank tested with distilled water. The most common method is to pour distilled water over the tip and through the inside, collecting the water in a container appropriate to the analytical method. The collected water should be tested for all site contaminants.

3.2.3 Drive Point Method

Post-run tubing (PRT) and drive point methods[5] used to create temporary soil gas wells may be used to rapidly acquire soil gas samples when carefully installed. Contractors should ensure that installation includes regularly checking and cleaning of the PRT tip threads and its seat and changing the O-rings on a daily basis. Contractors should use stiff tubing to couple the PRT tip to the connective hose and use ¼ inch outer diameter, thick-wall tubing to ensure sufficient torque is available to screw the tip tightly into the seat. If the O-ring is not seated properly into the drill rod, ambient air from inside the rod could enter into the sampling system, introducing ambient air into the soil gas sample, biasing the sampling results. The integrity of the seal of the O-ring cannot be readily evaluated with a leak check compound, and the inability to evaluate the integrity of the O-ring seal should be evaluated with the DQO process.

Representative soil gas samples may be difficult to obtain with PRT and drive point methods in certain lithologies. Drive point probes may be deflected by consolidated lithologies and strata containing cobbles or boulders, which can create gaps between the outer wall of the drive rod and the subsurface that are difficult to observe and equally difficult to seal. A hydrated bentonite plug at ground surface does not stop communication along the annular space. Samples collected under these circumstances will potentially draw soil gas primarily from the most permeable layer above the probe tip which may introduce a significant bias. Moreover, this condition is difficult to identify by a leak check compound applied at or near ground surface. Collecting representative soil gas samples in these conditions may require alternative sampling methods such as passive soil gas sampling or the installation of permanent sampling wells.

3.3 SOIL GAS WELL COMPLETION

Soil gas wells should be secured, capped and completed to prevent infiltration of water or ambient air into the subsurface, and to prevent accidental damage or vandalism. Mark the tubing at the surface to identify the probe location and depth. For surface completions, the following components may be installed:

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[5] Drive point methods may be appropriate for certain site conditions or circumstances depending on DQOs. The use of post-run tubing should be discussed with the regulating agency prior to inclusion in the workplan.

1) Gas-tight valve or fitting for capping the sampling tube;
2) Utility vault or meter box with ventilation holes and lock;
3) Surface seal; and
4) Guard posts.

3.4 DECOMMISSIONING

When sample collection ceases at a vapor well, properly remove or decommission wells with concurrence from the regulating agency. The decommissioning process should prevent the well and associated borehole from becoming a conduit for the preferential migration of contamination. The decommissioning procedures within the California Well Standards (Bulletin 74-90) should be followed along with any local requirements.

When decommissioning vapor wells with tubing, the following decommissioning steps should be followed:

1) Excavate the borehole down to approximately three feet below grade, exposing the upper portion of the tubing.
2) Either cut the tubing near the bottom of the excavated hole or pull the tubing out of the ground by hand, removing as much tubing as possible.
3) If tubing is still visible in the hole upon removal by hand, cut the tubing near the bottom of the hole, then insert[6] sealant, such as powdered bentonite grout, or silicone caulk, into the exposed tubing, filling it as much as possible;
4) Fill the open hole with cement grout to within one foot of the surface grade;
5) Fill the last foot of the hole with compacted native material; and,
6) Restore pavement and vegetation to original conditions, if needed.

When decommissioning vapor wells constructed with ridged casing, wells can be overdrilled or cement grouted in place pursuant to local requirement. When overdrilling, a casing guide should be used to prevent the drill bit from drifting during the decommissioning. A casing guide will allow the drill bit to remain aligned on the top of the well casing, allowing for effective removal of the well material. Once the well material is removed, the borehole should be filled with cement grout. If vapor wells penetrate clay units, consideration should be given to overdrilling rather than abandonment in place in order to prevent preferential contaminant migration.

[6] Inserting sealant may be accomplished by using a peristaltic pump or large syringe. Sealant must be free of lumps to freely pass down the tubing.

3.5 DECONTAMINATION

Decontaminate all reusable equipment to prevent cross contamination. Tubing is not reusable and should not be decontaminated. Instead, use new or unused sampling tubing for each probe location.

Decontamination may consist of steam cleaning or a three-stage decontamination process consisting of a wash with a non-phosphate detergent, a rinse with tap water and a final rinse with distilled water. Collect one equipment blank at the beginning of sampling and at least one each day after decontamination. Equipment should be air-dried before reuse.

The most common method of collecting an equipment blank is to pour distilled water over recently decontaminated piece of equipment and collect the water in an appropriate container for analysis of site constituents. Drill rods contacting contaminated soil should be decontaminated before reuse and blank tested as appropriate. If soil gas samplers arrive at the site after drill rig demobilization, equipment blanks should be provided by the drilling contractor. As discussed in Section 3.2.2, an equipment blank is recommended for probe tubing and probe tips. A syringe blank may be collected by sampling ultra-pure air as it passes through the syringe, and a syringe blank is not an acceptable substitute for the driller's equipment blank. The equipment blanks demonstrate there is no residual contaminant carryover from other sites or the manufacturing process.

3.6 SUB-SLAB INVESTIGATION METHODS

The procedures for collecting sub-slab soil gas samples directly under a building's foundation are the same as for collecting subsurface soil gas samples. When collecting sub-slab samples, if a building is determined to have a moisture barrier and/or a tension slab, special care should be given when hand-drilling through the concrete slab. In particular, for tension foundation slabs, the tension cables within the slab should be located prior to drilling either through visual observation or through remote-sensing with either a metal detector or ground penetrating radar. The cutting of a tension cable within a slab during drilling could disrupt the integrity of the slab and potentially cause injury to the field crew.

When evaluating sub-slab soil gas for a building, permanent sampling points should be installed so repeated sampling can be conducted, as necessary, to evaluate seasonal or temporal variations.

For sub-slab samples, after removal of the floor covering, a small-diameter hole should be drilled through the concrete of the foundation slab. Typically, holes are 1.0 to 1.25 inches in diameter. Either an electric hand drill or concrete corer is used to drill the holes. All sub-slab utilities, such as water, sewer, and electrical, should be located and clearly marked on the slab prior to drilling. Sub-slab holes should be advanced three to four inches into the engineering fill below the slab. All drill cuttings should be removed from the borehole. A typical sub-slab probe design is shown in Figure 2. The sampling probe should be constructed with the following specifications:

- Vapor probes are typically constructed of 1/8 inch or 1/4 inch diameter tubing, with a permeable probe tip. Alternate sub-slab sampling devices are commercially available. The reviewing agency should be consulted on the vapor probe construction prior to development of the workplan.

- Depending on the type of sub-slab probe construction, install a sand pack to minimize disruption of airflow to the sampling tip. Place the probe tip midway in the sand pack, as shown on Figure 2.

- Dry granular bentonite should be used to fill the borehole annular space to above the base of the concrete foundation.

- Hydrated bentonite should then be placed above the dry granular bentonite. The bentonite for this portion of probe construction should be hydrated at the surface to ensure proper sealing. Care should be used in placement of the bentonite to prevent post-emplacement expansion which might compromise both the probe and cement seal.

- The remainder of the hole should be filled with neat cement mixed with bentonite if the probe is permanent or with hydrated bentonite if the probe will be used for less than a year. Prior to the introduction of this material, the concrete surfaces in the borehole should be cleaned with a damp towel to increase the potential of a good seal and, ideally, all concrete dust should be removed from the borehole.

- All water used in the construction of the probe should be deionized, the cement should be contaminant-free and quick drying, and all metal probe components should be thoroughly cleaned to remove manufacturer-applied cutting oils.

- Each probe should be constructed with a gas-tight fitting and flush-mounted well box so that the probe completion is not a tripping hazard.

- Prior to sampling, at least two hours of time should elapse following installation of a probe to allow the construction materials to cure and allow for the subsurface to equilibrate (USEPA, 2006).

- The collection of sub-slab samples should follow the procedures in this Advisory, which recommends leak testing and shut-in testing. Purging and sampling rates should not exceed 200 milliliters per minute. To avoid air breakthrough from nearby, unobserved foundation cracks within the slab, DTSC recommends using sampling containers with volumes of less than or equal to one liter. If using passivated metal canisters, the canisters should be returned to the laboratory slightly depressurized, such as -2 inches of mercury.

- All laboratory analytical methods should meet the site-specific DQOs and the analytical method reporting limits should be low enough for risk determination.

- A sufficient number of sub-slab sampling events should be conducted to account for seasonal and spatial variability. At a minimum, two sub-slab sampling events are warranted before a final risk determination is made.

- Upon completion of all sampling, the sub-slab probes should be properly decommissioned. The probe tip, probe tubing, bentonite, and grout should be removed by over-drilling. The borehole should be filled with grout and concrete patch material. Surface restoration should include a follow-up visit for final sanding and finish work to restore the floor slab, and associated coverings, to their original condition.

At least two sub-slab probes should be installed at each residential structure, with one probe installed in the center of the building's foundation. The probes should be installed in inconspicuous areas, such as utility closets or beneath stairs. Sub-slab probes should not be installed near the edges of the foundation due to the effects of wind on the representativeness of contaminant concentrations (Luo et al., 2009).

Numerous sub-slab sampling devices, are commercially available. Cal/EPA encourages the use of innovative technologies as long as the devices are capable of meeting project DQOs and established performance criteria. Accordingly, sampling procedures recommended in this Advisory should be followed when using innovative technologies.

3.6.1 High Purge Volume Sub-Slab Sampling

Extracting a large volume of soil gas from beneath a foundation may provide representative average concentrations that minimize spatial variability in the data and can minimize the possibility of missing an area of elevated concentrations when using multiple discrete sampling points. Unlike conventional sub-slab sampling, high purge volume (HPV) testing provides information over a broader area by removing a larger volume of soil gas. The volume of gas beneath a typical residence in the engineered subgrade fill is a few thousand liters. In this context, the volumes of sub-slab soil gas samples currently collected for vapor intrusion assessments are very small, and larger samples may provide more spatially averaged concentrations. Examples of high purge volume methods can be found in Lewis and others (2004) and McAlary and others (2010).

HPV sampling consists of extracting sub-slab soil gas at a slow, constant rate of five to ten liters per minute, or higher if warranted, and collecting a soil gas sample after about two hours. Hence, over five hundred liters of sub-slab gas can be removed prior to sample collection using the HPV technique. The use of HPV sampling should be based on the site conditions and the project DQOs. All HPV sampling should follow the recommendations in this Advisory concerning leak checking, shut-in testing, and DQOs. As HPV sampling becomes further developed, quantitatively accurate results for contaminant concentrations can be achieved and the HPV samples can be used in quantitative risk assessments.

When utilizing HPV at a site, the protocols within McAlary and others (2010) should be followed. Some items to consider when using HPV are as follows:

- Vacuum during purging should not exceed 100 inches of water.

- The anticipated spatial influence of the HPV should not extend beyond the building's footprint, otherwise, ambient air may enter into the sample from the edges of the foundation. This situation can be alleviated by installing probes subject to HPV in the interior portions of the building.

- A leak check compound should be used during the purging and sampling.

- The amount of purge volume should be measured with a calibrated extraction pump.

- During the purging, site contaminants should be measured with a field instrument, such as a photoionization detector capable of reading in the parts per billion range, at the start of purging and then every 30 minutes thereafter, at a minimum.

- Fixed gases, such as oxygen and carbon dioxide, should be monitored every 10 minutes during purging to evaluate potential ambient air breakthrough into the sample system. Typically, oxygen and carbon dioxide should remain constant during the purging of sub-slab soil gas. Changes of fixed gas concentrations may be indicative of unacceptable leakage through the foundation slab.

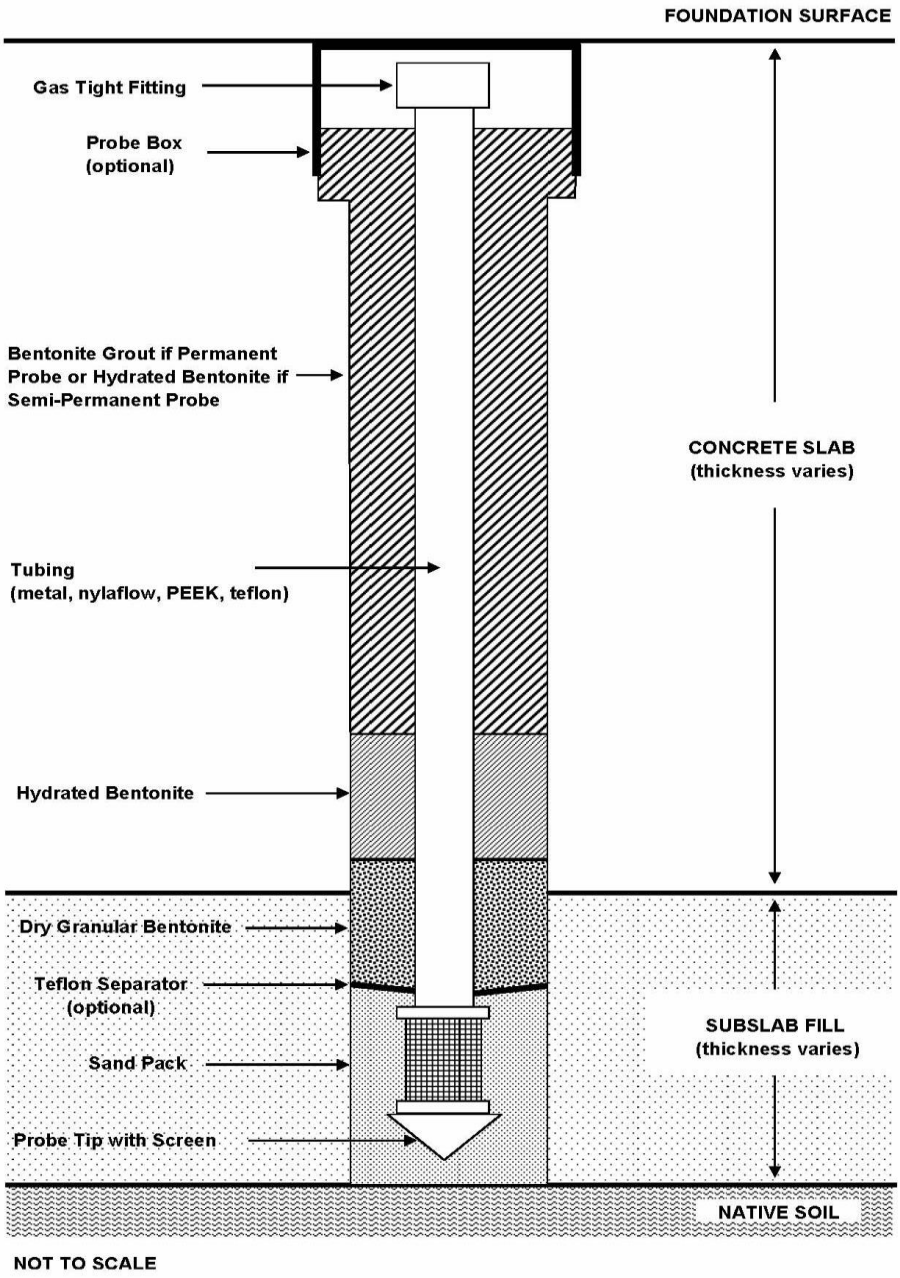
- To evaluate the radial influence of the HPV sampling, vacuum measurements should be continuously monitored at a nearby sub-slab probe locations. These data, along with all other field data, should be reported to the oversight agency.

- As an additional line of evidence for the integrity of the final laboratory sample, the leakage of air through the foundation slab should be quantified by the methods within McAlary and others (2010).

If ambient air breakthrough from the foundation slab occurs, the contaminant data collected upon completion of the purging should not be used for risk assessment purposes. Data indicating breakthrough include the detection of the leak check compound, significant increases of oxygen and/or significant decreases in carbon dioxide while purging. Likewise, significant decreases in VOC concentrations, as collected with a field instrument during purging, may be indicative of breakthrough.

FIGURE 2

Sub-Slab Vapor Probe Typical Diagram



4.0 SOIL GAS SAMPLE COLLECTION

4.1 EQUILIBRATION TIME

Subsurface conditions are disturbed during drilling and probe placement. To allow for the subsurface to equilibrate back to representative conditions, the following equilibration times are recommended before proceeding with soil gas sampling:

1) For soil gas wells installed with the direct push method, do not conduct the purging, leak testing and soil gas sampling for at least two hours following vapor probe installation. Finer-grained material may take longer, up to 48 hours, to equilibrate;

2) The equilibration time for sub-slab probes is two hours (see Section 3.6);

3) For soil gas wells installed with hollow stem or hand auger drilling methods, do not conduct purging, leak testing and soil gas sampling for at least 48 hours after soil gas probe installation;

4) For soil gas wells installed with a combination of hand auger drilling or hollow stem auger and direct push methods, do not conduct purging, leak testing and soil gas sampling for at least two hours following vapor probe installation provided that at least five feet of the borehole was drilled by direct push technology. The five feet of direct push borehole should be drilled after the completion of hand augering or hollow stem augering. The well screen should be located below this five-foot interval. If the well screen is located above the five-foot interval, do not conduct purging, leak testing and soil gas sampling for at least 48 hours after soil gas probe installation; and

5) For soil gas wells installed with the rotosonic or air rotary method, do not conduct purging, leak testing, and soil gas sampling until it can be empirically demonstrated that the subsurface equilibrium time is sufficient to collect representative samples. Due to site-specific conditions, the re-establishment of equilibrium could vary from a few days to a few weeks.

Note: The best option to verify that equilibrium has re-established is to collect time-series data. Soil gas samples for VOC analysis, along with oxygen and carbon dioxide measurements, should be collected shortly after installation, and then at a frequency that will demonstrate the time needed to attain representative samples. A field instrument may be used to analyze the soil gas samples to evaluate representativeness. If the subsurface lithology is homogeneous, one monitoring point could serve as a surrogate for all others when installing multiple sampling probes.

Soil gas well installation method and equilibration time should be recorded in the field log book or field form.

4.2 SOIL GAS ASSEMBLY TESTS

Complete shut-in, leak test and purging before collecting soil gas samples after the soil gas well has equilibrated.

4.2.1 Shut-In Test

Prior to purging or sampling, a shut-in test should be conducted to check for leaks in the above-ground sampling system. To conduct a shut-in test, assemble the above-ground valves, lines and fittings downstream from the top of the probe. Evacuate the system to a minimum measured vacuum of about 100 inches of water using a purge pump. The test is conducted while the sampling canister, if used, is attached with its valve in the closed position. Observe the vacuum gauge connected to the system with a “T”-fitting for at least one minute or longer. If there is any observable loss of vacuum, the fittings are adjusted until the vacuum in the sample train does not noticeably dissipate. After a successful shut-in test, the sampling train should not be altered. The vacuum gauge should be calibrated and sensitive enough to indicate a water pressure change of 0.5 inches. A shut-in test is not a replacement for a leak test.

4.2.2 Leak Test

A leak test is used to evaluate whether ambient air is introduced into the soil gas sample during the collection process. Atmospheric leakage occurs in three ways:

1) Advection through voids in the probe packing material and along the borehole sidewall;
2) Advection directly through the soil column; and
3) Through the fittings in the sampling train at the surface (Banikowski et al, 2009).

A leak test should be conducted at every soil gas well each time a soil gas sample is collected to evaluate the integrity of the sample. Introducing ambient air may result in an underestimation of actual site contaminant concentrations or, alternatively, may introduce external contaminants into samples from ambient air.

The two types of leak check compounds available for use when soil gas sampling are liquid compounds and gaseous compounds. Both types have their advantages and disadvantages, and practitioners should select a leak check compound based on their project’s DQOs. See Appendix C for quantitative leak testing.

4.2.2.1 LEAK CHECK COMPOUNDS (LIQUID)

Liquid tracer compounds, such as hexane, pentane, diflouroethane and n-propanol, can be used to evaluate sample integrity. Other compounds not listed here may also be appropriate. Typically, liquid tracer compounds are applied to towels or clean rags and placed around all connections in the sampling train in order to evaluate potential leaks of ambient air into the sampling train. The liquid tracer should not be directly sprayed or poured onto a fitting, but rather applied to a cloth which should be placed near the connection. Towels or rags with the liquid tracer should also be placed on the ground

adjacent to the probe to evaluate soil column and probe construction breakthrough. The leak check compound selected should not be a suspected site-specific contaminant. Seal integrity is confirmed by analyzing the soil gas sample for the tracer compound. Alternatively, each connection can be individually checked by placing the tracer cloth in a plastic bag and then using the bag to enclose individual connections. Instruments can be used in the field to evaluate whether leakage is occurring rather than waiting for the mobile or stationary laboratory results. Liquid leak check compounds should be included in the laboratory analyte list. The laboratory reports should quantify and annotate all detections of the leak check compound at the reporting limit of the target analytes. If the concentration of the leak check compound is greater than or equal to 10 times the reporting limit for the target analyte(s), then corrective action is necessary as discussed below.

4.2.2.2 LEAK CHECK COMPOUNDS (GASEOUS)

Gaseous tracer compounds, such as helium and sulfur hexafluoride, can be used along with a shroud or tent placed over all the sampling equipment. Other compounds not listed here may also be appropriate. Procedures for conducting a quantitative leak test are described in Appendix C. An ambient air leak up to 5 percent is acceptable if quantitative tracer testing is performed by shrouding.

4.2.2.3 LEAK CHECK CONSIDERATIONS

A soil gas well should be decommissioned if the leak cannot be corrected. Replacement soil gas wells should be installed at least five feet from the location where the original soil gas well was decommissioned due to a confirmed leak. The leak check compound concentrations detected in the soil gas samples should be included in the laboratory report and the ambient air breakthrough should be discussed in the site characterization report.

The intent of the leak check compound is to enhance the integrity of the soil gas sample by demonstrating that minimal or no ambient air breakthrough during sampling is occurring. Although it is preferable not to have any tracer gas breakthrough, minor amounts of breakthrough may be acceptable if the breakthrough is appropriate for the site's DQOs. Detecting leak check compounds indicate potential field problems. Some potential sources of leaks in sampling trains are poor quality fittings, stripped, over tightened, dirty or worn threads, and excessive sampling train connections. Regardless of the cause of the leak, a data adjustment factor based upon the concentration of the leak check compound to compensate for the inability to collect representative samples is inappropriate.

Note that if a passivated stainless steel canister is used to collect a sample that is later analyzed at a stationary laboratory and there is a significant leak, it will typically not be identified until after demobilization of the field crew. Therefore, field screening prior to laboratory analysis is recommended.

Commercially available leak check compounds, both liquid and gaseous, may contain unanticipated impurities. Therefore, laboratories should analyze the leak check compound to aid in the interpretation of the data.

When designing a field study, the tracer compound should be carefully selected. The following items should be considered when choosing a tracer compound.

- Excessive concentrations of the tracer can elevate analytical detection limits;
- Tracer compounds can cause interference with target analytes;
- Field detectors may produce biased results in the presence of water vapor or other compounds;
- The tracer compound may be naturally occurring;
- Field detectors may not be routinely calibrated; and
- Pressurized canisters of tracer gas may be dangerous to transport.

4.2.3 Purging

The purpose of purging is to remove stagnant air from the sampling system so that representative samples can be collected from the subsurface. A default of **three purge volumes** should be used. Purge volume testing is no longer recommended.

One purge volume includes the following:

- The internal volume of the tubing and probe tip.
- The void space of the sand pack around the probe tip.
- The void space of the dry bentonite in the annular space.

No distinction should be made between new and old probes or whether probes are shallow or deep. All probes should be subject to similar procedures.

Purging should commence after the shut-in test. Sample containers are not included in the purge volume calculation except when non-evacuated glass bulbs are used. In those instances, the volume of the non-evacuated glass bulbs should be added to the purge volume to account for mixing and dilution of gasses inside the glass bulb.

Shallow soil gas and sub-slab probes, where screens and associated sand packs are less than five feet below surface grade, are subject to purging. For shallow soil gas probes, sample collection containers should be less than or equal to one liter to avoid excessive air removal, avoiding the possibility of ambient air entering the subsurface and into the sample. All permanent probes should have an air-tight seal or cap to prevent ambient air from entering the tubing or casing.

Include the purg ing data in the report to verify an adequate volume of air was removed prior to sampling. The soil gas report data set should include the purged volume as well as the flow rate, and vacuum exerted on the formation. Additionally, dependent on the objectives of the characterization activities, collecting pneumatic data during purging may be warranted to determine the air permeability of the subsurface (see Appendix D for more information).

4.3 PURGE/SAMPLE FLOW RATE AND APPLIED VACUUM

Flow rates between 100 to 200 milliliters per minute (mL/min) and vacuums less than 100 inches of water should be maintained during purging and sampling to minimize stripping (partitioning of vapors from pore water to soil gas), to prevent ambient air from diluting the soil gas samples, and to reduce variability between contractors. Maintaining these flow rates and vacuums will increase the likelihood that representative samples will be collected. A flow rate greater than 200 mL/min may be used when purging times are excessive, such as for deep wells with larger-diameter tubing. However, a vacuum of 100 inches of water or less must be maintained during sampling whenever a higher flow rate is used. The pressure gauge used to measure vacuum should be calibrated and in good working order. When purging at rates of greater 200 mL/min, reduce the flow rate to 200 mL/min for sampling.

A vacuum gauge should be used between the soil gas sample tubing and the soil gas purging device to verify that 100 inches of water or less is maintained during sampling. Gas-tight syringes may also be used to qualitatively determine if a high vacuum soil condition is present. If a high vacuum condition is present due to low permeability soil, the sampling technician can feel the suction while the plunger on the syringe is being withdrawn. If low permeability conditions are encountered where 100 inches of water is exceeded, the well can be sampled using the techniques in Appendix D (Soil Gas Sampling in Low Permeability Soil).

4.3.1 Vacuum Pump

When a vacuum pump is used, collect samples on the intake side to prevent potential contamination from the internal parts of the pump. To collect the sample in a polymer gas sampling bag, a lung box[7] is required. Record the vacuum readings and corresponding flow rates on field data sheets for each sample. If the pump is battery-operated, the batteries should be checked before and during the operation to ensure that a proper charge is maintained. As batteries lose charge the flow rate is lowered, effectively changing the purge rate.

5.0 SAMPLE HANDLING AND TRANSPORT

5.1 SAMPLE CONTAINERS

Collect samples in gas-tight containers and handle in a manner that will prevent photodegradation of the target analytes. Sample containers should not compromise the integrity of the samples.

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[7] A lung box is a small airtight chamber into which the polymer gas sampling bag is placed. The connective tubing to the bag protrudes out a hole in the chamber. The sealed chamber is evacuated by a pump, causing the bag to expand, drawing the soil gas from the probe into the bag.

5.1.1 Syringes

Syringes should be checked for leaks before each use by closing the exit valve and attempting to force ambient air through the needle. Gas-tight glass syringes with Teflon® seals are preferred. Glass syringes should be leak tested periodically to verify integrity with age.

Plastic syringes should not be used because of the potential interaction with some target analytes.

5.1.2 Passivated Stainless Steel Canisters

Passivated stainless steel canisters need a flow regulator and vacuum gauge when sampling soil gas. If the canister is not fitted with a permanent vacuum gauge, a field vacuum gauge should be attached between the flow regulator and the canister inlet during sampling. To prevent stripping, connections should be initially hand-tightened. To verify the integrity of the seal on the steel canisters during transit, pressure readings should be collected during the canister's journey. The stationary laboratory should record the pressure when the canisters leave the laboratory and record it again on receipt of the canisters. Likewise, the field crew should record the pressure upon start and completion of the sampling. Typically, canisters are returned to the stationary laboratory with a slight vacuum (two to four inches of mercury). These pressure measurements should be included in the laboratory's analytical report as a mechanism to verify the integrity of the sample.

Pressure measurements should be collected using a calibrated pressure gauge, using the same gauge at the laboratory and in the field. Field crews should only rely on canister-dedicated pressure gauges if the gauges are calibrated and working properly. Canister-dedicated gauges tend to be inaccurate due to overuse.

Note that for passivated stainless steel canisters, storage pressure and humidity in a canister are also important factors that determine analyte recovery. Additionally, mercaptans, dimethyl acetal and bis-[chloromomethyl] ether at low concentrations are not suitable for collection in passivated canisters pursuant to a study by Brymer and others (1996).

5.1.3 Polymer Gas Sampling Bags or Glass Bulbs

Samples in polymer gas sampling bags or glass bulbs should be analyzed within six hours after collection. Appendix B discusses the merits of collecting samples in polymer gas sampling bags.

Surrogates do not need to be added to polymer gas sampling bags because surrogate recovery levels cannot be precisely calculated since the volume of soil gas collected in a polymer gas sampling bag cannot be measured precisely. Thus, adding surrogates to polymer gas sampling bags is unnecessary.

Samples collected in glass bulbs should have surrogates added within 15 minutes of collection and the samples analyzed within six hours after collection.

5.1.4 Sorbent Tubes

Sorbent tubes are used with USEPA (1999) Compendium Method TO-17 (Method TO-17). Method TO-17 describes:

1) Sorbent tube sampling procedures;
2) Sorbent tube selection;
3) Tube conditioning;
4) Sampling apparatus;
5) Sampling rates;
6) Sample collection preparation;
7) Flow rates; and
8) Other sampling procedures.

Method TO-17 is used for VOCs and SVOCs including naphthalene (See Appendix E for additional details on collecting and analyzing for naphthalene in soil gas).

5.1.5 Alternate Sample Containers

Non-traditional sample containers are available for collecting soil gas samples. Mini-passivated stainless steel canisters (~400 milliliters), may be useful in many field applications. Evacuated glass bottles may also be used but their holding time should be limited to 48-hours. The use of non-traditional size or types of containers should be discussed in the workplan.

5.2 FIELD CONDITIONS

Adjustments or modifications to the sampling program may be required by the regulating agency to accommodate changes mandated by evaluation of the data set or unforeseen site conditions. Field conditions, such as rainfall, irrigation, low permeability lithology or drilling conditions may affect the ability to collect soil gas samples.

5.2.1 Rainfall and Barometric Pressure (See Appendix G)

Rainfall decreases the air-filled porosity of the shallow soil, thereby limiting diffusional transport of volatile contaminants. Also, soil gas contaminants may partition into the clean infiltrating rainwater, both of which may potentially bias soil gas sampling results. Hence, soil gas sampling should not occur during a significant rain event and should only occur after five days without a significant rain event. A significant rain event is defined as 1/2 inch or greater of rainfall during a 24-hour period. The waiting period is based upon soil drainage curves. Appendix G provides additional information. Irrigation or watering of soil should stop at least five days prior to the soil gas sampling event. Likewise, areas subject to soil gas sampling should be free of standing or ponded water for at least five days prior to sampling. Do not perform soil gas sampling in swales or depressions where water might have accumulated. However, soil gas sampling after rainfall can proceed where infiltration has not occurred, such as under buildings or beneath high-integrity pavement.

Barometric pressure fluctuations associated with the passage of frontal systems can introduce atmospheric air into the shallow vadose zone. Therefore, soil gas sampling should be delayed until frontal systems have passed the area.

5.2.2 Wet Conditions

Moisture may have the effect of biasing the soil gas samples. If moisture is observed in the sample tubing or container, the vapor well should be abandoned and a new well installed. Moisture entrainment can be avoided by sampling a sufficient distance from the water table or by avoiding highly saturated soil. Also, experiences with soil gas sampling indicate that larger diameter tubing is less susceptible to plugging by moisture and fine-grained materials. All protocols for soil gas sampling in this Advisory apply to larger tubing.

The degree of potential sample bias is a function of subsurface equilibrium. When soil moisture and soil gas are in equilibrium, the VOCs in the pore water entrained in the sampling system may be released into the air stream during the agitation of the water, biasing the sampling results high. Conversely, when soil moisture and soil gas are not in equilibrium, soil gas contamination may partition into newly introduced pore water, biasing the sampling results low. Hence, vapor samples could be biased either low or high depending on the subsurface equilibrium. In either scenario, moisture should be avoided to alleviate potential bias. Areas of high soil moisture or areas where irrigation is present, should be allowed to drain, if possible, prior to soil gas sampling.

If no flow or low flow conditions are encountered where water is drawn into the sampling system due to wet soils caused by rain or irrigation, cease soil gas sampling and wait five days for the soils to drain.

5.2.3 Soil Gas Sampling in Low-Permeability Soil

Soil gas sampling in silt and clay-rich soils is feasible by following the sampling protocols described in Appendix D. Low flow or no flow conditions correspond to conditions where the minimum flow rate of 100 mL/min cannot be sustained at the maximum applied vacuum of 100 inches of water. High quality data can be produced by implementing the following field practices:

- Good annular seals;
- Careful monitoring of flow rate and vacuum during purging; and
- Use of tracer gas for leak-testing.

If the soil gas permeability is too low to allow sustainable purging at appreciable flow rates without applying excessive vacuum, follow the protocols described in Appendix D by using an alternative sample collection method or re-drilling and constructing a soil gas well in a non-traditional manner.

If low flow or no flow conditions are encountered, a new soil gas well in a coarser lithology at a different depth or lateral location may be installed. The following should be considered if low-flow conditions persist:

1) Evaluate site lithologic logs and adjust sample depth and location;
2) Collect new continuous soil core samples;
3) Use alternate low-flow sampling methods (see Appendix D);
4) Use passive soil gas methods (see Appendix A); and
5) Collect soil matrix VOC samples using USEPA Method 5035/8260 (DTSC, 2004).

If moisture or unknown material is observed in the sample container, cease soil gas sampling until the cause of the problem is determined and corrected. Moisture detected in either the sampling train or the sample container may indicate saturated conditions in the subsurface. Vapor phase compounds may partition into the dissolved phase, affecting the recovery of target analytes and causing analytical results to be biased low.

5.2.4 Drilling Refusal

If refusal occurs during drilling, soil gas samples should be collected as follows:

1) Install a replacement borehole at least five feet laterally from the original boring location. If refusal still occurs after three tries, collect a soil gas sample at the depth of refusal or use an alternate drilling method; and

2) If refusal occurs at depths less than five feet, collect the soil gas sample following the precautions in Appendix D. Sealing off the probe to ambient air is critical to obtaining high quality data.

5.3 SAMPLE CONTAINER HANDLING

Sample handling procedures cited in the analytical methods should be followed. However, since most methods are not designed for soil gas, additional safeguards should be implemented to maintain the integrity of the samples. If samples need to be shipped to a stationary laboratory, then follow the container-specific handling procedures below.

5.3.1 Syringes and Glass Bulbs

Samples in syringes and glass bulbs should be analyzed as soon as possible after collection in a mobile laboratory and should never be transported. Samples in syringes and glass bulbs should be kept in a cool dark location at all times, protected from exposure to light, until the samples are analyzed. A cooler without ice works well for syringe and glass bulb sample storage.

Do not subject syringe and glass bulb samples to extreme temperatures. Heat can cause compound degradation and leakage from the syringe or glass bulb. Cold can cause moisture condensation, which can affect the recovery of target analytes. If condensation is observed, the sample should be discarded and a new sample should be collected.

5.3.2 Sorbent Tubes

Samples collected in sorbent tubes may be shipped for analysis at a stationary laboratory. Samples tubes should be capped with Swagelok®-type caps and combined Teflon (PTFE) ferrules, rewrapped in aluminum foil, and placed in the storage container immediately after sampling.

Sorbent tubes should be stored at 4°C or less and analyzed within 30 days after collection. For compounds likely to undergo chemical degradation, such as bis-chloromethyl ether and sulfur or nitrogen-containing volatiles, analysis should be done within one week (USEPA, 1999; Compendium Method TO-17, Section 10.10).

Samples collected on tubes containing multiple sorbent beds should be analyzed as soon as possible after collection unless it can be verified that storage will not affect analyte recovery (USEPA, 1999; Compendium Method TO-17, Section 10.10).

5.3.3 Polymer Gas Sampling Bags

These procedures should be followed when transporting samples in polymer gas sampling bags:

1) Do not expose soil gas samples in polymer gas sampling bags to light or extreme temperatures. Photodegradation of target analytes is possible with light exposure. Heat can cause expansion of the bag and possibly result in leakage. Cold can cause moisture condensation in the bags;

2) Do not ship polymer gas sampling bags by air because changes in ambient pressure can adversely affect the integrity of the bags. Increases in pressure may collapse the bag and decreases in pressure may expand the bag. These changes in pressures, coupled with possible flaws in the bag, may cause sample loss; and

3) Do not ship polymer gas sampling bags by vehicle where changes in elevation, such as over mountain passes, will result in ambient pressure changes.

5.3.4 Passivated Stainless Steel Canisters

Samples collected in passivated stainless steel canisters may be shipped for analysis at a stationary laboratory. Passivated stainless steel canisters have minimal problems associated with their handling. Therefore, no additional precautions or safeguards are needed.

5.4 SAMPLE CONTAINER CLEANLINESS AND DECONTAMINATION

New containers should be shown to be free of contaminants by providing data from either the supplier or the analytical laboratory. After each use, reusable sample containers should be decontaminated as follows:

- Glass syringes and bulbs may be decontaminated by disassembling and heating them. Some components of the syringes and glass bulbs, such as the syringe barrel and bulb stopcock, cannot be heated and should be decontaminated by other methods such as rinsing with methanol and/or expunging with nitrogen or clean air. If a syringe is reused, it should be blank tested;

- Passivated stainless steel canisters should be decontaminated as specified in USEPA Method TO-15, either batch or individually certified, according to project DQOs;

- Polymer gas sampling bags should not be reused; and

- Equipment blanks should be analyzed to verify and evaluate the effectiveness of decontamination procedures for recycled or reused containers, except for certified containers. At a minimum, one equipment blank should be run per 20 sample containers cleaned, or at least one per day.

5.5 CHAIN OF CUSTODY RECORDS

The chain of custody documents the identity and integrity of the sample from the time of collection through receipt at the laboratory.

A chain of custody form should be completed in the field and include any relevant problems encountered during sample collection. The starting and ending pressures for passivated stainless steel canisters should be recorded on the chain of custody form. USEPA provides a complete description of chain of custody protocols and records management (USEPA, 1998, 2000b). To avoid loss or damage, the chain of custody forms should be placed into a sealable bag and attached to the inside of the shipping container.

6.0 ANALYSIS OF SOIL GAS SAMPLES

The sections below summarize analytical methods, QA/QC, holding times, reporting and laboratory certification. Additional details are provided in Appendices F and H.

6.1 TARGET COMPOUNDS

Target compounds are chemicals believed to be present, used, or released at the site. Common target compounds are listed below. Compounds may be added or excluded from the list below based on site history and DQOs. A vapor intrusion-specific list can be found in DTSC's Vapor Intrusion Guidance (DTSC, 2011).

6.1.1 Common Organic Compounds

Halogenated

1) Bromochloromethane
2) Bromodichloromethane

3) Bromomethane
4) Carbon tetrachloride
5) Chloroethane
6) Chloroform
7) 1,1-Dichloroethane
8) 1,2-Dichloroethane
9) 1,1-Dichloroethylene
10) cis-1,2-Dichloroethylene
11) trans-1,2-Dichloroethylene
12) Dichlorodifluoromethane (Freon 12)
13) Dichloromethane(Methylene chloride)
14) Tetrachloroethylene
15) 1,1,1,2-Tetrachloroethane
16) 1,1,2,2-Tetrachloroethane
17) 1,1,1-Trichloroethane
18) 1,1,2-Trichloroethane
19) Trichloroethylene (TCE)
20) Trichlorofluoromethane (Freon 11)
21) 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)
22) Vinyl chloride

Aromatics and Oxygenates

23) Benzene
24) n-Butylbenzene
25) sec-Butylbenzene
26) tert-Butylbenzene
27) 1,4-Dichlorobenzene
28) Di-isopropyl ether (DIPE)
29) Ethylbenzene
30) Ethyl tertiary butyl ether
31) Isopropylbenzene
32) p-Isopropyltoluene
33) Methyl tertiary butyl ether (MTBE)
34) Naphthalene
35) n-Propylbenzene
36) Tertiary amyl methyl ether
37) Tertiary butyl alcohol
38) Toluene
39) 1,2,4-Trichlorobenzene
40) 1,2,4-Trimethylbenzene
41) 1,3,5-Trimethylbenzene
42) Xylenes

Others

43) Total petroleum hydrocarbon
44) Acetone

45) Carbon disulfide
46) 2-Hexanone
47) Styrene
48) Methyl ethyl ketone
49) Methyl isobutyl ketone
50) Ethylene dibromide
51) 1,4-Dioxane

6.2 REPORTING LIMITS FOR TARGET COMPOUNDS

Reporting limits (RLs) should be based on the DQOs of the investigation. Corresponding analytical methods should be selected to achieve RLs that are below regulatory or risk-based screening levels. The RLs for the leak check compound should be reported at the RL of the target analytes.

When RLs are elevated due to sample dilution, the laboratory should provide a written explanation of why the project-specific RLs were not achieved. In some instances, sample dilution is necessary because of high concentrations of non-target compounds (background). It may be necessary to collect new samples for reanalysis to achieve appropriate RLs pursuant to the project's DQOs. A higher RL as a result of sample dilution is acceptable for the compound(s) whose concentration in an undiluted sample exceeds the upper level of an initial calibration range. Non-detected results for all target compounds shall be reported at the lowest dilution(s) concentration or no dilution concentration.

6.3 QUALITY ASSURANCE/QUALITY CONTROL

This section primarily focuses on field laboratory QA/QC and not stationary laboratory QA/QC. For a detailed discussion on stationary laboratory QA/QC, refer to Appendix F.

Laboratories should comply with the project QAPP, USEPA Methods, and the criteria in this Advisory. The analytical data should be consistent with the DQOs established for the project.

The regulating agency may inspect the field and/or stationary laboratory QA/QC procedures. Copies of the QA/QC plan and laboratory calibration data should be presented upon request.

All calibration and QA/QC standards, traceable to a source, should be documented by the laboratory. Continuing calibration and QC standards should be from a second source or a different lot from the same supplier. Vapor phase standards should be used to calibrate laboratory instruments.

The following items should be included when using USEPA Methods:

- Initial calibration;
- Daily calibration/continuing calibration;
- Laboratory control spike;
- Internal standards;

- Surrogates;
- Method blank; and
- Field blank.

All surrogate recovery data should comply with laboratory-derived control limits. Control limits should be included in the laboratory reports for reference.

Surrogate recovery limits should be approximately 70 percent to 130 percent (30 percent deviation). The laboratory-derived recovery limits may be wider or narrower than the 30 percent figure depending on sample introduction technique and compound used. If a compound-specific recovery limit is not selected, an explanation should be provided to justify the recovery limit used. See Appendix F for surrogate introduction techniques.

6.3.1 Sample Blanks

- Method Blanks: Method blanks should be used to verify the effectiveness of decontamination procedures in the laboratory, and to detect any possible interference from ambient air;

- Trip Blanks for Off-site Shipments: Trip blanks should be included in the shipping containers when collecting USEPA TO-17 samples;

- Material Blanks: Prior to soil gas sampling, an assembled soil gas probe, tip and tubing should be blank tested at a frequency of one analysis per new batch of tubing or material used; and

- Equipment Blanks: Equipment blanks should be collected from decontaminated equipment before reuse at a frequency specified in the workplan. One equipment blank should be collected and analyzed for each batch of 20 samples, or at least one per day, whichever is more often.

6.3.2 Field Duplicate/Replicate Samples

Duplicate samples are collected simultaneously, whereas replicate samples are collected sequentially. At least one duplicate/replicate sample should be collected and analyzed per 20 samples or per batch, whichever is more often.

Duplicate/replicate samples should be collected from contaminated areas at a frequency based on the project DQOs. The workplan should state the duplicate/replicate collection frequency.

Duplicate/replicate samples should be collected in separate sample containers at the same location and depth. Replicate samples can be collected immediately after the original sample, or a duplicate sample can be collected simultaneously by use of a T-splitter at the point of collection to divide the sample stream into two separate sample containers.

The field replicate mentioned in this section should not be confused with the laboratory replicate (see Table 2 in Section 6.5, and the QA/QC Section of Appendix F).

When comparing the results from field duplicate/replicate samples, a wider allowance should be given for the differences (e.g., 50 percent Relative Percent Difference [RPD]) because of the inherent variability associated with soil gas samples. The specific guideline for the RPD should be based on DQOs and be specified in the QAPP.

6.3.3 Laboratory Control Samples

Laboratory Control Samples (LCS) are optional as described in Appendix F.

6.3.4 Split Samples

The regulating agency may request split samples be collected and analyzed by a separate laboratory.

6.3.5 Holding Times

Holding times for soil gas samples should be specified in the workplan. All soil gas samples should be analyzed pursuant to container-specific holding times, as follows:

TABLE 1
Soil Gas Sample Holding Time

Container	Holding Time	Comments
Glass syringes	30 minutes	
Polymer gas sampling bags	6 hours	
Glass bulbs	24 hours	Must have surrogate added within 15 minutes of collection
Passivated stainless steel canisters	30 days	
Sorbent Tubes	30 days	Sulfur and nitrogen compounds and bis-chloromethyl ether should be analyzed with one week.
Hydrogen sulfide	See Section 7.1	

6.4 ANALYTICAL METHODS

There are no approved USEPA methods specifically designed to analyze soil gas samples. Consequently, modified versions of existing USEPA methods were adopted.

Numerous modifications of USEPA methods are being used for soil gas analysis. Each modification has advantages and disadvantages. Soil gas analysis should be performed in accordance with the protocols noted in the respective USEPA method(s) concurrently with the specific recommended practices for soil gas samples outlined in Table 2.

Methods/Parameters not included in Table 2 should be followed as stated in the original USEPA method.

For a more detailed discussion on the various types of modifications and other applications, consult Appendix F.

TABLE 2
Preferred Analytical Methods and Modifications*

Method/ Parameter	GC/MS Methods			GC Methods	COMMENTS
	Modified USEPA 8260	Modified USEPA TO-15	Modified USEPA TO-17	Modified USEPA 8015 and Modified USEPA 8021	
Applicability/Analytes	Most VOCs: confirmation sampling for naphthalene should be performed by USEPA TO-17.	Most VOCs: confirmation sampling for naphthalene should be performed by USEPA TO-17.	Most VOCs: approximate concentrations should be known prior to sampling.	Limited number of VOCs: gasoline/TPH most VOCs: confirmation sampling for naphthalene should be performed by USEPA TO-17.	See Appendix F of this guidance for discussion.
Sample Introduction Technique	Modified Purge-and-trap (USEPA 5030).	Samples collected in passivated canisters: VOCs are concentrated on sorbent trap.	Samples pulled through sorbent pack, thermally desorbed into GC.	Modified purge-and-trap (USEPA 5030).	See Appendix F of this guidance for discussion.
Sample Size	Purge-and-trap: 5 to 250 mL (cc) (See Appendix F for discussion).	To be determined by sample delivery technique and sample concentration; typically 1 to 6 liters.	To be determined by a combination of factors: sorbent selected, tube length, humidity, temperature; 50 to 250 ml of sample suggested.	Purge-and-trap: 5 to 250 mL (cc) (See Appendix F for discussion).	See Appendix F of this guidance for discussion. Dilution may be needed if high concentration is suspected.
Method Validation [(1)]	As per Section 8.4 of USEPA 8000B.	As per Section 8.4 of USEPA 8000B.	As per Section 8.4 of USEPA 8000B.	As per Section 8.4 of USEPA 8000B.	
Initial Calibration	Minimum of 5 levels, lowest at reporting level. Use method acceptance criteria.	Minimum of 5 levels, lowest at reporting level. Use method acceptance criteria.	Minimum of 5 levels, lowest at reporting level. Use method acceptance criteria. Preloaded certified standard tubes may be used for calibration.	Minimum of 5 levels, lowest at reporting level. Use method acceptance criteria.	Vapor-phase standards are preferred. Liquid standards may be used for USEPA Methods 8260, 8015, 8021 and TO-17 provided calibration curve is validated. See Appendix F of this guidance.
Continuing Calibration	Mid-level calibration standard run every 12 hours. Use method acceptance criteria.	Mid-level calibration standard run every 24 hours. Use method acceptance criteria.	Mid-level calibration standard every 10 sample batch (Section 12 of USEPA TO-17).	Mid-level calibration standard run every 12 hours. Use method acceptance criteria.	
Calibration Validation	At minimum, vapor-phase validation check standard [(2)] analyzed and evaluated for each new calibration curve (% difference ≤ 20%).	Not Applicable.	No vapor-phase standard validation needed for liquid standards.	At minimum, vapor-phase validation check standard [(2)] analyzed and evaluated for each new calibration curve (% difference ≤ 20%).	Validation not needed if calibration curve is prepared with vapor-phase standards.

TABLE 2 (continued)
Preferred Analytical Methods and Modifications*

Method/ Parameter	GC/MS Methods			GC Methods	COMMENTS
	Modified USEPA 8260	Modified USEPA TO-15	Modified USEPA TO-17	Modified USEPA 8015 and Modified USEPA 8021	
End of Run Calibration Check	Optional.	Optional.	Optional.	Mid-level calibration standard run for each 20 sample batch or at end of run, whichever is more often.	See Appendix F of this guidance for discussion.
Surrogates	Surrogates needed for glass bulbs but not for syringes or polymer sampling bags.	Optional.	Optional.	**8015:** To be determined by lab. (3) **8021:** Surrogates needed for glass bulbs but not for syringes or polymer sampling bags.	Recovery acceptance limits to be determined by lab. Default=70-130%.
Internal Standards	As per Section 5.10 of USEPA 8260.	As per Section 9.2.2.3 of USEPA TO-15.	As per Sections 6.12.2 and 9.4 of USEPA TO-17.	**8015:** To be determined by lab. (3) **8021:** As per Section 5.9 of USEPA 8021.	
Accuracy/Precision Matrix Spike/Matrix Spike Duplicate	See Appendix F of this guidance.	Optional.	Optional.	See Appendix F of this guidance.	See Appendix F of this guidance for discussion. Recovery acceptance limits to be determined by lab. Default=70-130% and %RPD=25%.
Duplicates	One per 20 samples or batch, whichever is more often.	One per 20 samples or batch, whichever is more often.	One per 20 samples or batch, whichever is more often.	One per 20 samples or batch, whichever is more often.	See Appendix F of this guidance for discussion. %RPD=25%.
Replicates	One per 20 samples or batch, whichever is more often.	One per 20 samples or batch, whichever is more often.	One per 20 samples or batch, whichever is more often.	One per 20 samples or batch, whichever is more often.	See Appendix F of this guidance for discussion. %RPD=25%.
Laboratory Control Samples (LCS)	Optional.	Not Required.	Not Required.	Optional.	See Appendix F of this guidance for discussion.
Method Detection Limit/Reporting Limit	See Appendix F of this guidance.	See Appendix F of this guidance.	See Appendix F of this guidance.	See Appendix F of this guidance.	See Appendix F of this guidance.
Reporting Limit Verification	One per batch of samples. (4)	One per batch of samples. (4)	One per batch of samples. (4)	One per batch of samples. (4)	See Appendix F of this guidance for discussion.
Method Blanks	Method blank using humidified lab grade ultra-pure air as sample and per Section 8.4.1 of USEPA 8260.	Analyze at least once in a 24-hour analytical sequence.	At least two are required per monitoring exercise.	**8015:** Method blank using humidified lab grade ultra-pure air as sample and per Section 9.5 of USEPA 8015C. **8021:** Per Section 8.4 of USEPA 8021.	

TABLE 2 (continued)
Preferred Analytical Methods and Modifications*

Method/ Parameter	GC/MS Methods			GC Methods	COMMENTS
	Modified USEPA 8260	Modified USEPA TO-15	Modified USEPA TO-17	Modified USEPA 8015 and Modified USEPA 8021	
Container Blank	One sample container per 20 samples or per batch, whichever is more often.	One sample container per 20 samples or per batch, whichever is more often.	One sorbent tube blank per 20 samples or per batch, whichever is more often.	One sample container per 20 samples or per batch, whichever is more often.	Monitor other components (i.e., fittings/ valves) of sampling system if needed.
Holding Time	Analyze syringes within 30 minutes of collection; analyze glass bulbs within 24 hours following surrogate addition; analyze passivated stainless steel canisters within 30 days; analyze polymer gas sampling bags within 6 hours.	Analyze passivated stainless canisters within 30 days; sulfur and nitrogen compounds and bis-chloromethyl ether should be analyzed within one week.	Up to 30 days refrigerated. Exceptions as noted in Section 10.10 of USEPA TO-17.	Analyze syringes within 30 minutes of collection; analyze glass bulbs within 24 hours following surrogate addition; analyze passivated stainless steel canisters within 30 days; analyze polymer gas sampling bags within 6 hours.	
Other Requirements	Tuning: 50 ng Bromofluorobenzene (BFB) initially and every 12 hours. Meet acceptance criteria as per Table 4 of USEPA 8260.	1. Tuning: 50 ng BFB initially and every 24 hours. Meet acceptance criteria as per Table 3 of USEPA TO-15. 2. Must meet equipment specifications in Section 7.2 of USEPA TO-15 or report results as modified TO-15.	1. Analytical protocol as per USEPA TO-15. 2. Condition freshly packed (new) sorbent tubes. 3. Collect and analyze "Distributed Volume Pairs" for uncharacterized sites as per Section 10.7 of USEPA TO-17. 4. Determine/ validate "Safe Sampling Volume" (SSV) if needed as per Sections 10.8 and 13.1.2 of USEPA TO-17; analyze as per USEPA TO-15 and Section 11.2 of USEPA TO-17. 5. Analytical precision test as per Section 11.3.2.2 of USEPA TO-17. 6. Performance criteria as per Section 14 of USEPA TO-17.	Use only for routine monitoring at well-characterized sites. Other than TPH, identification of new compounds must be confirmed either by second column or different detector, and then 10% of those samples must be confirmed with a GC/MS method.	

* Adapted from "Guide to Environmental Analytical Methods" 5th edition, Edited by Roy-Keith Smith, Ph.D., Genium Publishing Corp., 2003.
(1) Initial, one-time demonstration of ability to generate acceptable accuracy and precision. Procedure may need to be repeated if changes in instrument, methodology or personnel occur. USEPA Method 8000B (Determinative Chromatographic Separations), Revision 2, December 1996 (SW-846 Manual).
(2) Mid-level NIST (National Institute of Standard and Technology) traceable (where available or equivalent) vapor-phase standard.
(3) No internal standards and surrogates were suggested by the method. The compounds are to be selected by the laboratory analyst and they must be similar in analytical behavior to the compounds of interest. The analyst needs to demonstrate the internal standards are not affected by method or matrix interferences.
(4) There is no limit on the number of samples per batch for Reporting Limit Verification. If the RL is set at the lowest calibration point, then this verification is not needed.

6.5 SOIL GAS SAMPLE ANALYSIS AND LABORATORY REPORTING

6.5.1 Analytical Methods

At sites that are not fully characterized, soil gas samples should be analyzed using only USEPA modified analytical methods 8260B, TO-15, TO-17, or equivalent. At well-characterized sites, alternative methods may be used for monitoring contamination where VOCs are known to be present and confirmed based on previous gas chromatograph/ mass spectrometer (GC/MS) analyses. Non-specific portable organic vapor analyzers and/or GC-based hand-held detectors can provide useful information for selecting samples for laboratory analysis and verifying the integrity of collected samples. However, these instruments are not acceptable substitutes for compound-specific analysis due to a lack of QA/QC protocols. The various available VOC analytical methods are discussed in detail in Appendix F. Additional discussion is provided in Appendix E specific to soil gas containing naphthalene.

If new VOC(s) are detected by a non-GC/MS method during routine monitoring, then at least 10 percent of the samples for each newly identified VOC should be confirmed by a GC/MS method. Thereafter, routine monitoring can resume with the non-GC/MS method, including the newly identified analyte(s).

6.5.2 Contaminant Reporting

Laboratory reports should contain the analytical results for all identified quantifiable contaminants, along with all tentatively identified compounds (TICs) with an estimated concentration. The site's QAPP should specify that TICs will be identified and reported.

6.5.3 Leak Check Compounds

Liquid and gaseous leak check compounds should be included in the laboratory analyte list. The laboratory reports should quantify and annotate all detections of the leak check compound the target analyte reporting limits. For additional information on leak check compounds, refer to Section 4.2.

6.5.4 Auto Samplers

Using an autosampler with modified USEPA Method 8260B/C for soil gas analysis is not reliable. Sample loss may occur from the vials during the sample transfer and sample run. In addition, the vials may sit in the autosampler for an extended period of time which may compromise the sample through leakage at the vial seal (See Appendix F, GC/MS Methods Section for additional information).

7.0 METHANE AND HYDROGEN SULFIDE SAMPLING PROGRAMS

7.1 METHANE

There are several analytical methods appropriate for methane, including:

- USEPA Methods 8015B modified;
- TO-3, 3C;
- ASTM Method D1945; or
- ASTM Method D1946.

Methane may also be measured with a hand held gas emissions monitor or analyzer. The RLs for methane analysis should be determined by project-specific DQOs.

7.1.1 Methane Field Collection

The following procedures should be followed when collecting samples for methane analysis:

- Methane should be collected in gas-tight sample containers such as passivated stainless steel canisters or polymer gas sampling bags.

- Fixed and biogenic gases such as oxygen, carbon dioxide, methane and ethylene should be analyzed to determine whether methanogenesis is occurring. The RL for oxygen and carbon dioxide should be one percent or less.

- Prior to sampling, tubing or probe pressure should be recorded in the field logs and reported along with the methane concentration to determine if the area is pressurized.

7.1.2 Methane Laboratory Analysis

GC calibration curves for methane should be recorded and reported. Hand-held instruments should be calibrated in accordance with the manufacturer's specifications. At least 10 percent of all positive detections with concentrations more than 5,000 parts per million by volume (ppmv) should be confirmed by another hand-held instrument (either different unit or a different brand) or by a GC method when a hand-held instrument is used.

7.2 HYDROGEN SULFIDE

Hydrogen sulfide may be analyzed using:

- South Coast Air Quality Management District Method 307-91;
- ASTM D5504;
- USEPA Method 16;
- Draeger™ tubes; or
- Other equivalent methods.

Hand held multi-gas monitors equipped with a hydrogen sulfide sensor may also be used. The RL should be equal to or less than 0.5 ppmv, be at least one microgram per liter or sensitive enough to allow for a modeled ambient air concentration at the soil surface.

7.2.1 Sample Containers

The following sample containers are recommended for hydrogen sulfide:

- Black polymer gas sampling bags fitted with polypropylene valves or equivalent. Clear polymer gas sampling bags can be used, stored and/or transported provided they are protected from light;
- 100 mL gas-tight glass syringe or gas-tight glass bulb fitted with an inert valve and wrapped in aluminum foil; and
- Passivated stainless steel canister. Note that recovery of hydrogen sulfide in passivated stainless steel canisters will deteriorate naturally with time with repeated hydrogen sulfide sampling.

7.2.2 Hydrogen Sulfide Field Collection

Hydrogen sulfide samples should be analyzed by a hand-held instrument within 30 minutes of collection to minimize sample degradation from reaction with the container surfaces. If a hand-held instrument is not used, hydrogen sulfide samples should be analyzed as follows:

1) Within 30 minutes of collection using GC procedures;

2) Within 24 hours of collection if duplicate samples are collected and analyzed; or

3) Within 6 hours of collection in polymer gas sampling bag using ASTM D5504 with no surrogate addition needed.

7.2.3 Precautions Particular to Hydrogen Sulfide

1) Contact with oxygen and moisture should be avoided because hydrogen sulfide is extremely unstable;

2) Due to the high reactivity of hydrogen sulfide gas, avoid contact of hydrogen sulfide samples with metallic or other active surfaces during sample collection, storage, and analysis;

3) Ensure GC components do not react with the sample. Typically, glass-lined injection ports, thick-film capillary columns and silcosteel® lined tubing are used to avoid loss of hydrogen sulfide during analysis;

4) Exposure of samples to light should be minimized to prevent photodegradation; and

5) USEPA Method 16 should be used with caution because it is a source-testing method which has limitations, including non-linear detector response, high reporting limits and susceptibility to hydrocarbon interference.

8.0 LABORATORY CERTIFICATION

The State Water Resources Control Board, Environmental Laboratory Accreditation Program (ELAP), offers certification for soil gas analysis. Laboratories utilizing USEPA Methods 8015B, 8021B, and 8260B for analyses of soil gas samples should obtain ELAP certifications for these methods. Accreditation under National Environmental Laboratory Accreditation Program (NELAP) for USEPA Methods TO-13A, TO-15 and TO-17 for ambient air testing is acceptable as certification for soil gas testing.

As of the date of this document, the development of a laboratory certification program for soil gas is in progress in California. Once a certification program is available by the State Water Resources Control Board, laboratories should apply to be certified. Further information concerning laboratory certification is provided in Appendix F.

Any laboratory analyzing soil gas samples may be subject to inspection by regulatory agency staff.

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APPENDIX A PASSIVE SOIL GAS METHOD

Passive soil gas sampling consists of burying an adsorbent material into the subsurface soil and subsequently retrieving and measuring organic vapors passively amassed onto the absorbent material. Unlike active soil gas sampling, passive soil gas sampling does not force soil gas into the sampling vessel through pumping or vacuum. Instead, as the vapors disperse from a subsurface contaminant source, the sorbent acts as a sink for the VOCs and SVOCs found in soil gas.

Passive soil gas methods provide a quantified contaminant mass value for the absorbent material and a semi-quantitative soil gas result. In contrast to active soil gas samples, which yield concentration data in micrograms per cubic meter ($\mu g/m^3$) or micrograms per liter ($\mu g/L$), passive soil gas samples do not directly yield contaminant concentration data. For this reason, the results from a passive sampler must be corrected by a contaminant-specific sampling rate, also called an uptake rate, to obtain concentration data. As passive sampler technology becomes further developed, quantitatively accurate results for contaminant concentrations in soil gas can be achieved.

Potential uses of the passive soil gas method are as follows:

1) To delineate contaminant plumes, contaminant sources, and hot spots;

2) To identify potential preferential pathways where sewer and utility corridors provide vapor migration pathways into and around buildings. Passive methods can also identify preferential pathways resulting from lithologic variability;

3) To collect soil gas in areas where active soil gas samples are difficult to obtain. These areas include low-permeability lithology, high-moisture soils and shallow groundwater conditions. When the depth to groundwater is within five feet of the surface, the capillary fringe may prevent sample collection by active soil gas methods due to the high soil moisture content; and

4) To evaluate whether a release has occurred. Active soil gas data should be collected following the detection of subsurface contamination by the passive method.

Advantages of the passive soil gas methods are:

1) Provides a time-integrated measurement, which reduces uncertainty due to temporal variations;
2) Detects compounds with low vapor pressures not easily captured by active methods, such as naphthalene (see Appendix E);
3) Maintains subsurface equilibrium during sampling since there is no forced movement of soil gas into the sampling vessel with passive methods; and
4) Simple to design, install, and retrieve.

Passive Sampling Procedures

Analytical procedures, deployment depths, and sampling durations will depend on the manufacturer's recommended procedures. Some samplers currently available can be installed at any depth, and at the same sampling density as the active method. Typically, passive samplers are deployed in hand-drilled boreholes that are three to five feet deep and one-inch in diameter. The sampler is lowered into the borehole with a string and the surface is covered to prevent the introduction of ambient air. Deployment duration is usually 10 to 14 days. The samplers are retrieved by pulling the device from the borehole with its string. Analysis of the absorbent material is conducted by Methods 8260, 8270 or TO-17. Sample preparation prior to analysis can be very simple and may involve cutting the tip off the bottom of the sampler and transferring an exposed sorbent material to a thermal desorption tube.

Replicate samples, if collected, are retained for approximately two weeks after initial analysis. Two trip blanks should be collected and analyzed for passive soil gas sampling. One trip blank should accompany the passive samplers to the field and then be analyzed. The second trip blank should accompany the samples from the field to the laboratory.

APPENDIX B POLYMER GAS SAMPLING BAGS AND TUBING TYPES

Polymer Gas Sampling Bags

Polymer gas sampling bags require similar quality assurance/quality control as other sample containers, specifically container blanks, laboratory control samples and trip blanks. Additional information on quality assurance requirements is presented in Appendix F.

Polymer gas sampling bags should not be reused because contaminants may adhere to the surface of the bag. Also, the bags themselves may off-gas various organic compounds. Manufacture specifications of the bag material should be checked to verify site-specific COCs are compatible.

Relative humidity inside polymer gas sampling bags may affect recovery of polar compounds. Additionally, water may permeate into and out of polymer gas sampling bags during storage.

Advantages are:

- Inexpensive;
- Disposable;
- Easily handled and transported; and
- Recommended for reduced sulfur compounds such as hydrogen sulfide and the fixed gases such as O_2, N_2, CH_4, etc.

Disadvantages are:

- Potential bag material off gassing (toluene and ketones);
- Adsorption of some VOCs;
- Sample loss (mostly via hose valve assembly);
- Limited holding time;
- Vulnerable to puncture;
- Should not be used when moisture content of soil gas is high (condensation);
- Highly polar compounds adhere to the inner surface of the bag; and
- Low molecular weight compounds may permeate the bag.

Tubing Types

Nylaflow®, polyetheretherketone (PEEK), and Teflon® are recommended tubing materials for soil vapor sampling. Low-density polyethylene (L-D PE) should not be used due to decreased performance relative to other tubing types in both off-gassing of VOCs inherent in the tubing structure (contribution to background) and for decreased recovery (reactivity). Reduced recovery of naphthalene has been observed when using Nylaflow® tubing with small sample sizes.

Justification

Nylaflow®, PEEK, Teflon®, and L-D PE were evaluated for contribution to background. Of the four tubing types, L-D PE exhibited the highest frequency of VOCs and hydrocarbons in background samples and the poorest recovery for target analytes. Some off-gassing of toluene, and to a lesser extent, benzene, propylbenzene and methanol, were noted with the Nylaflow® tubing.

The following table summarizes the results of several studies:

TABLE B-1
Tubing Type Study Results

Tubing Type	Study		
	Ouellette (2004)	Hayes and others (2006)	Nicholson and others (2007)
L-D PE	Sorption of hexane and pentane	Sorption of numerous compounds	N/A
Tygon	Sorption of hexane and pentane	N/A	N/A
Nylaflow®	Acceptable	Sorption of naphthalene	Sorption of aromatics
Teflon®	Acceptable	Acceptable	N/A
Vinyl	Sorption of hexane and pentane	N/A	N/A
PEEK	N/A	Acceptable	N/A

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APPENDIX C QUANTITATIVE LEAK TESTING USING A TRACER GAS

Background

Soil gas data collection is driven by project-specific data quality objectives (DQOs). Quantitative leak testing may be conducted using a shroud and a gaseous tracer compound. This method of leak detection ensures that soil gas wells are properly constructed and the sample train components do not leak. Gaseous leak check compounds differ from liquid leak check compounds in that liquid leak check compounds can interfere with target analytes. Soil gas samples containing liquid tracers frequently require extensive sample dilution resulting in elevated reporting limits. These elevated reporting limits may not meet project DQOs. Most gaseous tracer compounds do not affect target analyte measurements nor does their detection require sample dilution. Also, gaseous leak tracer compounds allow a quantitative determination of a leak either in the sampling train or from ambient air intrusion down the borehole.

Shroud Design

The shroud should be designed to contain the entire sampling system, including the sampling container, and the soil gas well annulus. Shrouds typically have rigid walls so that an air space can be maintained and controlled over the sampling equipment. The size of the shroud depends on the sampling equipment used but should be designed to minimize the shroud volume and gaseous leak tracer compound used. It is easier to maintain initial gaseous leak tracer compound concentrations within the shroud if the shroud volume is kept small, the number of holes in the shroud is kept minimal, and the shroud has good contact with the ground surface. The sampling train should be constructed of material that does not react with the sample analytes and will not off gas or adsorb volatile compounds. The sampling equipment should be clean and shut-in tested prior to use.

Shrouds should be designed for ease of use during purging and sampling, minimizing disturbance of the shroud. The gaseous leak tracer compound concentration inside the shroud should be monitored frequently for the duration of purging and sampling to verify target concentrations (See Figure C-1). Shroud design should also take into account the need for duplicate or multi-depth sampling.

Tracer compound detectors provide measurements of tracer gas concentrations inside the shroud and in the purge stream. Several types of detectors are available for field use including hand held, diffusion cell type (inside shroud), and flow through detectors for measuring the purge stream. Alternatively, an external lung box/polymer gas sampling bag setup may be used to quantify tracer compound breakthrough prior to sampling. Detection of tracer compounds prior to sampling enables the samplers to correct the source of the leak(s) or relocate well(s) before taking a compromised soil gas sample.

Soil gas probes installed with good seals throughout the borehole annulus and the use of compression fittings provide assurance against ambient air leaks.

Field Use

A detailed illustrated Standard Operating Procedure should be submitted to the regulating agency for review prior to sampling. Field personnel should be familiar with the procedures and practices necessary to successfully collect soil gas samples using this equipment. If the shroud and sampling train will be reused, all components should be cleaned and shut-in tested prior to reuse.

USEPA Method TO-15 requires sample trains be tested by passing both spiked and clean dry air through the sampling trains to validate performance characteristics.

Purging and Sampling

The tracer compound concentration around the sample train and above the well annulus should be maintained at a minimum concentration. The shroud should be infused with the tracer compound at least five minutes prior to purging to allow the tracer compound time to equilibrate (See Figure C-2).

All methods of tracer compound detection should be capable of measuring the tracer compound in air to an accuracy and precision of 0.1 percent. Shroud concentrations should be two orders of magnitude higher than the reporting limit of the laboratory analytical method or the field meter used to analyze the sample. Tracer compound concentrations inside the shroud should be carefully monitored and maintained to correct variations in tracer compound concentration due to wind and uniformity of the ground surface. Additional tracer compound should be added to the shroud incrementally to maintain the desired concentration. Field personnel should record the measured tracer compound concentration in the shroud periodically during the sampling event.

The calculation of a leak is based on the ratio of tracer compound concentration in the shroud to that in the sample, assuming that the tracer compound is continuously infused during sampling. The tracer compound in the shroud should be kept within ± 10% of its target value, and if not achieved then its lowest measured value should be used for calculation purposes. The tracer compound concentration in the shroud should be maintained for the duration of the purging and sampling.

The soil gas probe and sampling train assembly can be field screened for leaks by drawing purge gas through the well and then through the tracer compound detector while the shroud is in position and filled with the initial tracer compound concentration. Detecting a significant leak in the probe or sampling train at the time of purging provides the opportunity for the field crew to correct the leak early in the sampling process, thereby ensuring the samples analyzed by the laboratory meet the project-specific DQOs.

If the concentration of the tracer compound in the purge sample is greater than or equal to five percent of the tracer compound concentration in the shroud, corrective action is

necessary to either remedy the leak or relocate the probe prior to collecting a soil gas sample.

Regardless of the cause of the leak, a data "adjustment factor" based upon the concentration of the leak check compound to compensate for the inability to collect representative samples is inappropriate.

FIGURE C-1

Shroud Components

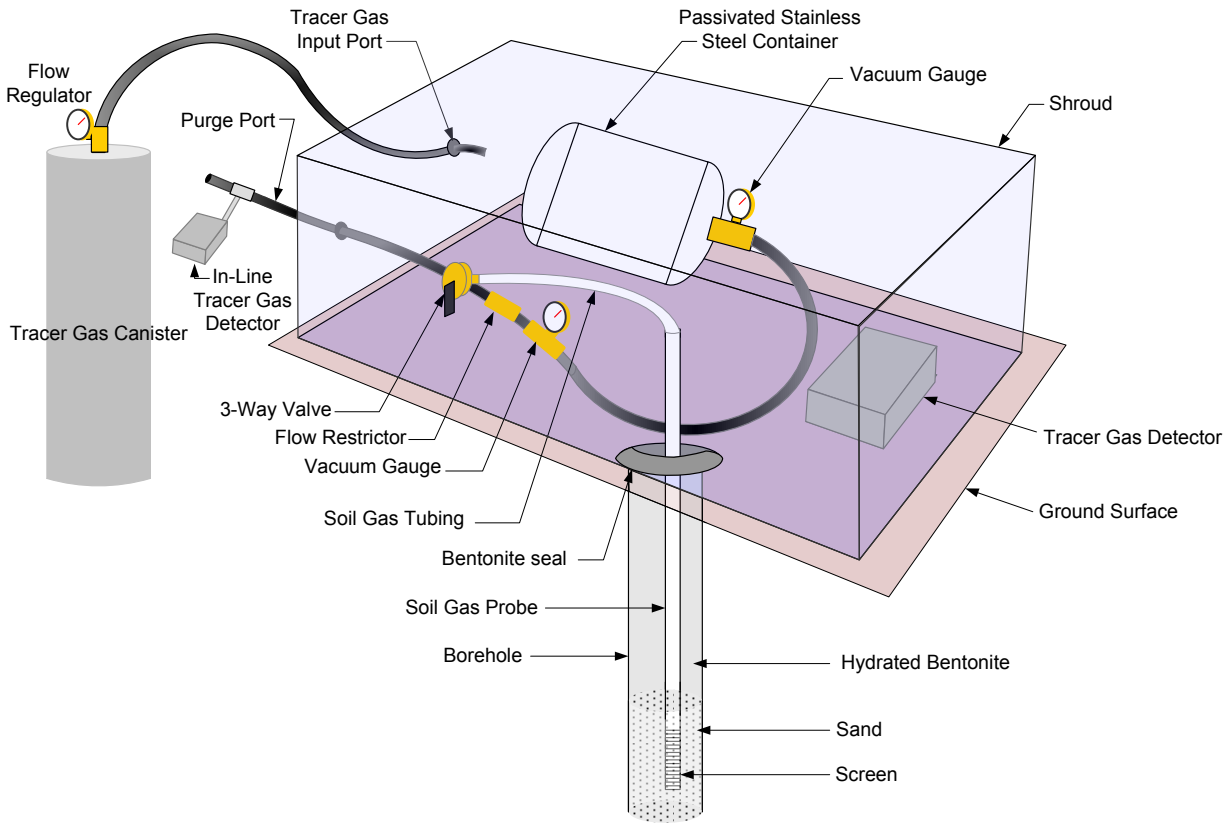
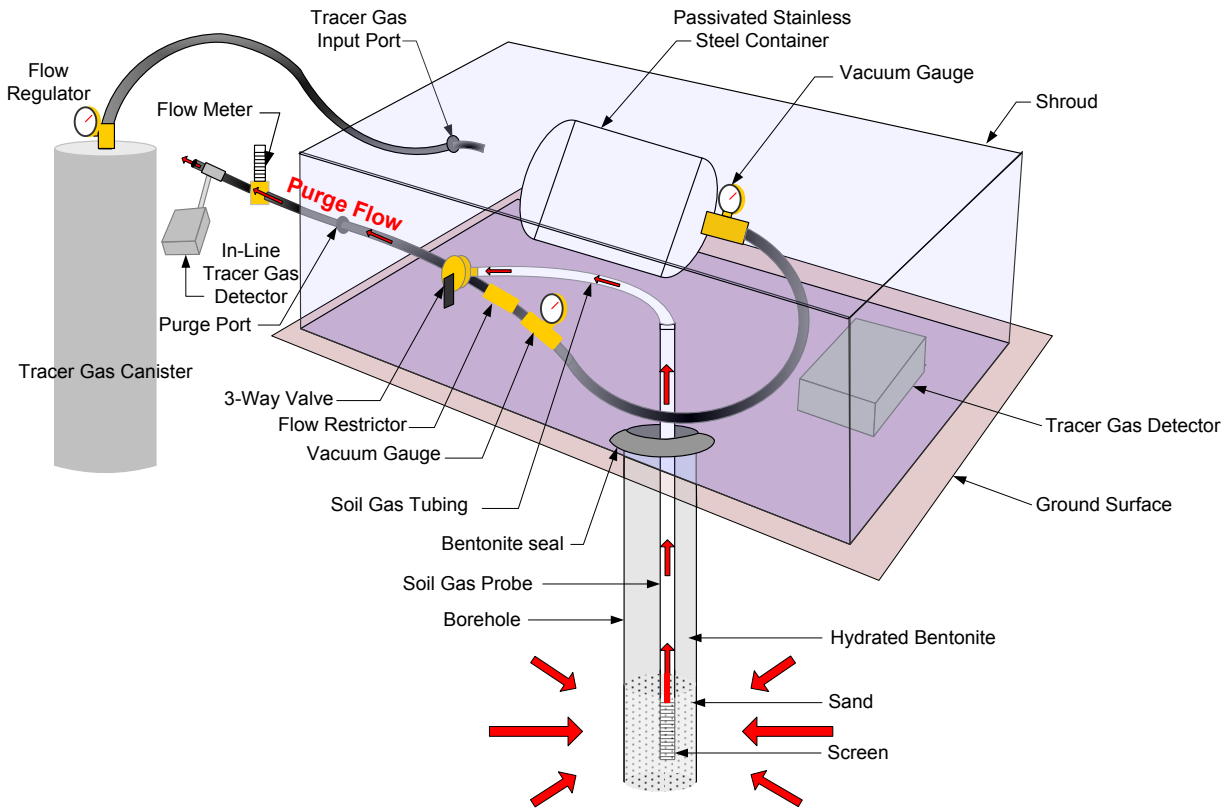


FIGURE C-2

Shroud Components – Purge Conditions



APPENDIX D SOIL GAS SAMPLING IN LOW PERMEABILITY SOIL

Representative soil gas samples can be collected from low permeability soil by utilizing specialized field procedures in addition to the protocols described in the main text of this Advisory. Hence, the procedures described in this Appendix do not replace the recommended procedures in the main text but rather supplement the procedures.

When low flow, high vacuum conditions are encountered during soil gas sample collection, two options are available for field technicians. Sampling can continue at the probe with an alternative sample collection method or the probe can be re-drilled and constructed in a non-traditional manner. Typically, low flow conditions are defined as the inability to maintain an appreciable flow rate (100 mL/min or greater) without applying excessive vacuum (any vacuum greater than about 100 inches of water). In the field, the determination of low flow, high vacuum conditions can be done quantitatively or qualitatively. The probe in question should be subject to applied vacuum for three minutes prior to rendering a decision about flow conditions.

In low permeability soil, it is helpful to initially perform passive soil gas sampling to determine whether active soil gas samples are required at low permeability sites. The passive soil gas samples are used to screen areas for contamination with follow-up active soil gas sampling for risk assessment. Passive soil gas sampling is described in Appendix A.

ALTERNATIVE SAMPLING METHOD

A modified purging and sampling procedure can be used for low flow vapor probes. In a study conducted by McAlary and others (2009), several nested soil gas probes were installed in low-flow conditions, as defined above. About a third of a liter of soil gas was collected from each soil gas probe under an applied vacuum of 100 inches of water before the flow diminished to a negligible amount. Once this vacuum threshold was obtained and it was determined that a flow rate of 100 mL/min was not sustainable, the probe valve was closed to allow the vacuum to dissipate and to allow soil gas to slowly enter the sand pack and tubing from the surrounding soils. When the vacuum dissipated, the probe valve was reopened, and another aliquot of sample was collected. This procedure was repeated until the soil gas probe was adequately purged and sampled. In this manner, probes can be appropriately purged and enough sample volume can be collected for analysis.

If this procedure is used, the rate of vacuum dissipation should be monitored with a dedicated vacuum gauge. The sampling crew may proceed with other nearby activities during the pressure rebound cycle. Additional pressure gauges, fittings, and a flow meter will be needed to implement this procedure in the field. Prior to purging and sampling, the sampling system should be shut-in tested to ensure that vacuum rebound is attributable to subsurface processes and not system leakage. Likewise, leak check compounds should be used during the entire sampling process to confirm the integrity of the sample.

REINSTALLATION METHOD

This approach requires the reinstallation of a vapor probe with a sand pack larger than traditional size. A large sand pack assures the availability of subsurface air for sampling. For this method, the sand pack should have an interstitial void volume of approximately 3 liters, which implies the use of approximately 10 liters of sand for the sand pack. To accommodate this large volume of sand, both the length and the radius of the sand pack must be larger than sand packs typically installed with direct push technology. Approximately ten liters of sand equates to a sand pack length of two feet for a six-inch borehole and a sand pack length of four feet for a four-inch borehole. A study by Neznal and Neznal (2005) indicates that measured radon concentrations in soil gas are not dependent on the subsurface well geometry when the soil is homogeneous and of low permeability.

When using this method, the following should be considered:

- The length of the sand pack should not be longer than the zone of interest;
- The vapor probe tip should be located in the center of the sand pack;
- The top of the sand pack should be at least five feet below surface grade;
- Excessively long sand packs (greater than five feet) should be avoided;
- The diameter of the vapor probe should be small to reduce purge volumes (less than or equal to ¼-inch); and
- The soil gas well should have a high integrity annular seal.

The vapor probe should only be sampled after the sand pack has reached equilibrium with the native material. The establishment of equilibrium can be expected to take approximately two weeks. Purging should be conducted on the probe to remove ambient air entrapped during installation. Probe tubing size should be selected so that the purge volume does not exceed 200 milliliters. Purging 200 milliliters should not induce any significant vacuum in the probe given the void volume in the sand pack. Excessive vacuum during sample collection can be avoided if the sample collection vessel is small. To avoid excessive vacuum, sample size should be no more than one liter. Vacuum within the vapor probe should be measured to ensure that 100 inches of water is not exceeded during the purging and sampling.

AIR PERMEABILITY TESTING

Air permeability is determined by measuring the gas pressure in a vapor probe as a metered flow of air is passed through the probe. These in-situ tests should only be conducted after soil gas sampling due to potential disruption of subsurface conditions by the movement of air. In-situ testing should continue until steady-state conditions occur. The occurrence of steady-state conditions is defined as less than a 130 Pascal pressure change within 30 minutes. The air permeability is calculated using the data obtained during steady-state conditions. The method also requires the measurement of the soil gas air temperature along with ambient air pressure. See DTSC'S Vapor Intrusion Guidance for more information (Appendix J).

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APPENDIX E NAPHTHALENE SOIL GAS COLLECTION

Soil gas sampling for naphthalene is more complex than traditional soil gas sampling procedures. Naphthalene analysis by USEPA Method TO-15 presents several challenges, such as contaminant carryover and variability in recovery (Hayes et al., 2005). Likewise, naphthalene readily sorbs onto traditional soil gas sample tubing such as polyethylene and nylaflow (Hayes et al., 2006). USEPA Method TO-15 defines target analytes as having vapor pressures greater than 0.1 millimeter (mm) of mercury (Hg) at standard conditions, and is suitable for organic compounds with carbon content ranging from C3 to C10. However, naphthalene with vapor pressure of 0.087 mm Hg falls just below this threshold and hence is not listed as an analyte for TO-15. USEPA Method TO-17 allows greater flexibility in targeting lower vapor pressure compounds, and hydrophobic sorbents can trap organic compounds ranging from C7 to C20. Nonetheless, naphthalene samples can be analyzed by both USEPA Methods TO-15 and TO-17 provided the appropriate protocols described below are followed. Table E1 is a comparison of the two methods, and can be used to assist practitioners in the selection process in conjunction with the project's data quality objectives (DQOs).

To collect a naphthalene sample, the entire sampling system should be composed of Teflon®, polyetheretherketones (PEEK) or other tubing types with demonstrated inertness (Hayes et al., 2006). Using proper materials in the sampling system will ensure that soil gas samples are representative of subsurface conditions. Soil gas sampling workplans should describe how the field investigation will meet all the recommendations within this appendix as well as those noted in the USEPA TO methods. Both passive and active soil gas samples may need to be collected in order to provide multiple lines of evidence to evaluate vapor intrusion exposure to naphthalene.

Naphthalene Sample Collection by TO-15 (USEPA, 1999a)

Many stationary laboratories are capable of obtaining naphthalene data of acceptable quality using TO-15. If TO-15 is used for naphthalene sampling, then the laboratory conducting the analysis should utilize certain procedures, as follows:

1) **Naphthalene Recovery:** Naphthalene may condense onto the interior surface of sampling canisters. Therefore, storage stability tests with prepared naphthalene vapor standards should be performed for the duration of expected holding times. These storage stability tests should be conducted in the laboratory using certified clean canisters. Acceptable recovery of naphthalene should be demonstrated using a gas standard at a concentration of 32 $\mu g/m^3$ or less prepared in a passivated canister of the same make and approximate age as those used for sampling. The recovery testing information should be provided in the laboratory reports.

2) **Naphthalene Carryover**: Laboratory blanks should be used to check for instrument carryover. The blank should be run after the introduction of the highest naphthalene standard used to generate the instrument's calibration curve. Likewise, blanks should be run after the analysis of soil gas samples with

high naphthalene concentrations. Any instrument carryover of naphthalene from the blank sample should be substantially lower than the reporting limit to assure that the analyses are not compromised. The laboratory blank information should be provided in the laboratory reports.

3) **Canister Cleanliness:** Canisters used for naphthalene analysis should be certified clean before and after use, and the certification sheets provided in the laboratory reports. The canisters can be either batched or individually certified dependent upon the project's DQOs.

4) **Canister Age:** Laboratories should consider utilizing newer canisters for naphthalene sample collection. In older canisters, the passivated interior surface degrades over time, allowing greater surface area for the sorption of naphthalene. The age of the sampling canisters should be provided in the laboratory reports.

5) **Matrix Spikes (MS) and Matrix Spike Duplicates (MSD):** As stated in Table 2 in the Advisory and repeated in Appendix F, MS and MSD are impractical and not required when using TO-15.

If TO-15 is used for naphthalene sampling, TO-17 should be used to confirm TO-15 sampling results at a frequency of five to ten percent of the field samples. The number of confirmatory samples should be a function of the DQOs for the site. Confirmation sampling is especially prudent when using data for risk assessment purposes or when verifying cleanup objectives.

Naphthalene Sample Collection by TO-17

Soil gas samples for analysis by TO-17 are collected in sampling tubes packed with an appropriate sorbent material. USEPA (1999b) contains lists of chemicals amenable to TO-17 analysis along with guidelines for sorbent selection. For naphthalene, the sorbent material is usually Tenax® GR or Tenax® TA, but others may be appropriate. Practitioners should reference Table I in the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (USEPA 1999b). The air flow rate through the tubes is monitored during sample collection and a vacuum of less than 100 inches of water should be maintained during sampling. Shut-in tests should be conducted and leak check compounds should be used to evaluate sample integrity.

Items to consider when soil gas sampling pursuant to TO-17 are as follows:

1) Practitioner's Unfamiliarity: Practitioner's unfamiliarity with sampling by TO-17 may lead to field errors, potentially reducing the integrity of the sampling data.

2) Perceived Limitations with Sorbent Tubes: Other concerns and perceived limitations with use of the sorbent tube include lack of repeat analysis for samples collected by TO-17, breakthrough of target analytes during sampling and potential mass spectrometer overload from high concentration samples. To

address these concerns, practitioners should consider pre-screening all soil gas samples subject to TO-17 procedures. By estimating the anticipated concentration range of the sample prior to sorbent tube sampling, practitioners can determine optimal sampling durations to avoid breakthrough and provide notification to the stationary laboratory about possible instrumentation overload. Field equipment capable of measuring in the microgram per cubic meter range may be warranted.

3) Breakthrough Volumes: The sampling air volume is calculated from the anticipated subsurface concentration, sampling tube sorption capacity and sorbent tube temperature. Equations for breakthrough are typically provided by either the sorbent tube manufacturer or the analytical laboratory. Calculations for breakthrough should include an adequate safety factor to ensure that breakthrough does not transpire during sampling. If breakthrough volumes cannot be determined due to unknown conditions, sorbent tubes should be arranged in series and all tubes should be submitted to the laboratory for analysis.

4) Pump Placement: The sorbent tube should be upstream of the sampling pump.

5) Sample Collection Flow Rate: Flow rates for sample collection are typically less than 50 milliliters per minute, and the flow rate should not vary by more than 10 percent during sample collection.

6) Sorbent Tube Orientation: Tube orientation is usually annotated on the tube by the sorbent manufacturer or laboratory. For thermal desorption methods, the sorbent tube must be oriented during sample collection in the direction indicated on the tube. Multiple tubes may be placed in series in the sampling train if analytes other than naphthalene are required or if duplicate samples are necessary.

7) Field Documentation: Data sheets should be completed in the field and submitted to the analytical laboratory. The sheets should contain the sampling flow rates and sampling volumes required to quantify contaminant concentrations. These field data sheets should be included within the characterization report.

8) Leak Check Compounds: Leak test compounds should be used to verify sample integrity when sampling pursuant to TO-17, but it should be noted that most sorbent tubes will not retain many typical leak check compounds. For example, compounds smaller than C7 are not captured by Tenax® GR or Tenax® TA. In these situations, practitioners cannot depend upon the analysis of sampling tube for quantification of the leak check compound. Instead, additional sampling and analytical procedures may be warranted. Leakage can be readily measured and quantified on-site with a field meter, or by a stationary laboratory after the soil gas sample is collected. If a leak test compound with a carbon range of greater than C7 is used, the additional mass absorbed onto the sorbent tube may elevate the reporting limit or even overload the mass

spectrometer upon analysis. Additionally, a shut-in test of the above-ground apparatus downstream from the probe should be performed prior to sampling.

9) Collection Tube Composition: Sorbent tubes composed of metal should be used due to potential photochemical reactions. However, if only glass sampling tubes are available, the tubes should be wrapped entirely in aluminum foil during and after sample collection to avoid photodegradation.

10) Duplicate Samples: Duplicate sorbent tube samples should be collected at a predetermined frequency, usually at a rate of 10 percent of the number of samples.

11) Trip Blanks: Each shipping cooler should contain a trip blank. The trip blank should be a sealed tube filled with the same sorbent used during the field procedures.

Other Analytical Methods for Naphthalene Sample Collection

1) **Method 8260:** Due to the potential for low data quality when collecting and analyzing naphthalene soil gas samples pursuant to Method 8260, sample results should not be used for risk assessment purposes. Similar to the concerns about naphthalene analysis by TO-15, Method 8260 presents issues concerning contaminant carryover, variability in recovery and sorption to sampling equipment, such as plastic and glass syringes, glass bulbs and Tedlar bags.

2) **TO-13A:** Naphthalene analysis by TO-13A is not recommended. While TO-13A procedures are similar to TO-17 in many respects, two fundamental differences exist. First, the sorbent material within the sampling tubes for TO-13A is composed of polyurethane foam, typically PUF® and XAD-2®. Second, the sorbent material is removed by solvent (soxhlet) extraction prior to introduction into the gas chromatography/mass spectrometry instrumentation rather than by thermal desorption as in TO-17. Both PUF® and XAD-2® are known to have marginal collection efficiency for vapor phase naphthalene. Additionally, there is a potential for substantial losses of naphthalene due to its tendency to sublimate and its relatively high vapor pressure during TO-13A soxhlet extraction and evaporative concentration (Fortune et al., 2010).

TABLE E-1
Comparison of Methodologies

Issues	TO-15	TO-17
Application to naphthalene	Naphthalene is not a listed constituent due to its low vapor pressure.	Method specifically designed for constituents with low vapor pressure.
Familiarity with method	Method is commonly used.	Method is not widely used. Some laboratories may not have the necessary analytical equipment.
Sample collection	Canisters are expensive, expensive to clean, and bulky to transport. Only one sampling canister is needed per sample if numerous constituents warrant analysis. Sample remains stored as a gas until analysis.	Sorbent tubes are inexpensive as compare to canisters, and are small and easy to transport. Numerous sampling tubes may be needed if numerous constituents warrant analysis. Samples are no longer in the gas phase once collected, and hence, less likely to interact or react until analysis.
Sample analysis	The GC/MS analysis is the same for both methods. The difference is how the sample is introduced into the GC.	The GC/MS analysis is the same for both methods. The difference is how the sample is introduced into the GC.
Sample recovery	Naphthalene may sorb into the interior surface of the sampling canister, biasing the sampling results.	Naphthalene readily desorbs from the sampling tube material.
Sampling rate	Canister sampling rate is controlled by a regulator which is pre-calibrated and usually provided by the laboratory.	Sampling rate is controlled by a purge pump in the field. Hence, the field crew is responsible for maintaining the flow rate and for determining the sample volume.
Subsurface concentration	Highly concentrated samples can be handled, but canisters need to be cleaned thoroughly afterward.	Constituent breakthrough can occur without realization, compromising the integrity of the sample.
Capacity for multiple runs	Multiple analyses can be performed on the canister air if needed.	Typically, only one analytical run is possible on a sorbent tube. Samples cannot be diluted in most cases.
Detection limits	Typically greater than 10 $\mu g/m^3$ for naphthalene.	Typically less than 10 $\mu g/m^3$ for naphthalene.
Water management	Both methods are effective in removing water. Sorbent trap in the concentrator allows for the passage of some water, and then a dry gas purge is performed prior to thermal desorption in the GS/MS.	Both methods are effective in removing water. Uses a combination of hydrophobic sorbents, and then a dry gas purge is performed prior to thermal desorption in the GS/MS.
QA/QC	Analytical QA/QC is same for both methods.	Analytical QA/QC is same for both methods. Relatively extensive QA/QC on the sorbent tubes before and during sampling.

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APPENDIX F SOIL GAS ANALYTICAL METHOD REVIEW

SOIL GAS ANALYSIS METHODS

There are two methods generally used in California for soil gas analysis. One is Gas Chromatography with Mass Spectrometer (GC/MS), which is able to confirm the identity of compounds. The second is GC with a single specific detector such as a Flame Ionization Detector (FID), Electron Capture Detector (ECD), Photoionization Detector (PID) or a series of these detectors. The GC/MS technique is preferred because of its specific compound identification ability.

There are no approved USEPA methods specifically designed to analyze volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) in soil gas samples. Consequently, modified versions of existing USEPA methods are used to analyze soil gas samples.

The modifications made to accommodate soil gas samples include the sample introduction technique and the calibration approach. It is important for consultants, regulators and other stakeholders to evaluate the technique(s) being employed before work begins on a site. All of the modifications have advantages and disadvantages with some working better for certain compounds than others. Project data quality objectives (DQOs) should be the deciding factor on which technique is the best to use for each phase of work on a particular site. If possible, the parties involved should perform preliminary performance tests or trial runs using a selected number of techniques and determine the best method to use on the site.

PERFORMANCE-BASED MEASUREMENT SYSTEM

This appendix summarizes some common methods used to analyze soil vapor samples. Laboratories are not restricted to the methods described in this document. Modifications and other adjustments may be needed to accommodate matrix, background, or other analytical issues. These modified methods can be used provided they have been validated and it can be demonstrated that the modified methods are capable of meeting the project DQOs and established performance criteria. Innovations and creativity are encouraged.

Methods that do not follow the specifics of published written methods (such as USEPA Method TO-15) but have been validated and can be demonstrated to be effective are considered to be “performance-based measurement system” (PBMS) with stipulations.

USEPA published the PBMS in 1997. The intent of PBMS was to allow the regulated community to select any suitable analytical method for regulatory compliance, to improve data quality and to encourage development of better analytical techniques. PBMS conveys what needs to be accomplished, but does not prescriptively describe how to do it. PBMS are defined as a set of processes where the data needs of a program or project are specified, and serve as the criteria for selecting appropriate methods to meet data or project objectives.

Since there are no analytical methods specifically designed to analyze soil gas samples, laboratories may develop and implement PBMS for soil gas samples. PBMS can be used for soil gas samples provided the criteria stated above are met, specifically that:

- The process can be validated;
- It can be demonstrated that the process can meet project DQOs; and
- It can be demonstrated that the process can meet the specified method performance criteria.

Laboratories may independently validate their PBMS. All validation documentation, such as raw data, should be kept on file and available for review by parties that may have vested interests in a particular project.

The regulating agency should review all PBMS in detail before accepting the proposed modification. Data from projects where the proposed PBM will be used should be compared side-by-side with an existing method. The proposed PBMS should be scrutinized to make sure they are not simply short-cut methods disguised as performance-based measurement systems.

Project consultants and contractors should provide the necessary documentation to support the use of any proposed PBMS for a project. Documentation should substantiate that the proposed method is capable of meeting the project DQOs and meet performance criteria.

Laboratory results from a PBM should reference the method used as “Performance-Based” followed by the base method. For example, if the PBM is based on USEPA Method TO-15, then the method should be referenced as “Performance-Based USEPA Method TO-15.” In the report narrative, a short description of the modification and/or adjustment made to the established method should also be included.

HISTORICAL AND LATEST VERSIONS OF ANALYTICAL METHODS

Multiple versions of USEPA methods exist. Analytical methods are revised in order to add more analytes, update instrumentation and clarify requirements and recommendations. Most revisions do not involve substantial changes to the method technique. In general, laboratories should use the latest method revision in their work. However, before using a new revision, laboratories should carefully review and compare their existing method with the new revision to verify that there are no significant changes that can affect data quality and the DQOs of their clients. Likewise, laboratories using older revisions of methods, for historical or consistency reasons, should confirm that the older method version will serve the intended purpose. Laboratories should clearly indicate the exact revision of the method used in their laboratory reports to their clients.

Letter suffixes to a method such as “A”, “B”, etc. are used to identify the revision status of the method. The first version of a method (revision “0” [zero]) does not have a letter suffix.

Occasionally a revision or method may be declared obsolete by the USEPA and should therefore no longer be used by laboratories. For the current status of USEPA methods, refer to the Status Tables for SW-846, Third Edition.

Table F-1 displays the various versions of USEPA methods referenced in this advisory modified for soil gas testing:

TABLE F-1
USEPA Soil Gas Testing Methods

USEPA Method	Description	Revisions (Date)	Comments
8015	Nonhalogenated Organics by Gas Chromatography	0 (September 1986) A (July 1992) B (December 1996) C (February 2007) D (June 2003)	Revision D is the latest revision in spite of the later date for revision C. Revision C was introduced in 2000 as a draft update, but not finalized until 2007.
8021	Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors	0 (July 1992) A (September 1994) B (December 1996)	Replaced methods 8010 and 8020.
8260	Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	0 (July 1992) A (September 1994) B (December 1996) C (August 2006)	
TO-13A	Polycyclic Aromatic Hydrocarbons (PAHs) in Ambient Air Using Gas Chromatography/Mass Spectrometry (GC/MS)	First Edition (TO-13) (March 1989) Second Edition (January 1999)	"Edition" refers to the Compendium of Methods for the Determination of Toxic Organic Compound in Ambient Air, and not the revision of the method.
TO-15	Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS)	Second Edition (January 1999)	Method TO-15 was a new method added to the Second Edition of the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. TO-15 is based on Method TO-14A.
TO-17	Volatile Organic Compounds (VOCs) in Ambient Air Using Active Sampling Onto Sorbent Tubes	Second Edition (January 1999)	Method TO-17 was a new method added to the Second Edition of the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. It is an update of Methods TO-1 and TO-2 from the first compendium (1989).

MODIFIED GC/MS METHODS

USEPA Method 8260

USEPA Method 8260 (Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)) is designed to determine the concentration of VOCs in a variety of solid and liquid matrices (USEPA, 2000). There are two modifications made to this analytical method for soil gas sampling. In the first modification, a volume of soil gas sample is injected into the sparge vessel (sparger) containing water. Helium gas is then used to purge the VOCs out of the sparger and onto a sorbent trap. VOCs in the sorbent trap are thermally desorbed into the GC column for separation and analysis. This is equivalent to USEPA Method 5030 (Purge-and-Trap for Aqueous Samples). In the second modification, a small volume of the soil gas sample is directly injected into the GC.

Laboratories employing a modification of USEPA Method 8260 to analyze soil gas samples should adhere to all the analytical requirements of the original method including purge time, calibration and Quality Assurance/Quality Control (QA/QC). Modifications for soil gas samples are outlined in the following sections.

a) Sample Introduction

The original USEPA Method 8260 outlines five specific methods for sample introduction, none of which were designed for soil gas. Therefore, modifications of the introduction step are needed for soil gas samples. DTSC contacted several stationary and mobile laboratories that use Method 8260 for soil gas, and determined that soil gas samples are usually introduced by either purge-and-trap or direct injection, as described above. Each sample introduction technique has its own advantages and disadvantages. The advantages and disadvantages are summarized in Table F-2.

TABLE F-2
Advantages and Disadvantages of 8260 Sample Introduction Techniques for Soil Gas

Sample Introduction Technique	Advantages	Disadvantages	Comments
A volume of soil gas sample is injected into a purge-and-trap sparger containing water. Analytes are purged out of sparger into the sorbent trap using helium gas. Analytes in the trap are thermally desorbed into the GC column for separation.	• Larger volumes of soil gas sample may be forced into water to achieve lower reporting limits with limitations. • Surrogates, internal standards and spikes are added into the sparger before sample introduction and purging. • Soil gas volumes can be changed by using a smaller syringe or concentrated soil gas samples can be diluted in glass bulb before injecting into sparger.	• Analytes are forced into a water matrix and purged out into trap before entering into GC column. Loss of target analytes possible. • Depending on the type of sample container/vessel in which the sample is collected, sample may need to be transferred before injection into sparger –potential sample loss in transfer process. • Low recovery of polar/water soluble compounds. • Calibration curve not matrix-matched if liquid standards are used.	• Not recommended for polar/water soluble compounds. • Surrogates (liquid-phased) are used, but introduced separately into sparger. Does not actually provide true QA/QC information on soil gas. • Ideal for higher concentration samples. • Not recommended for low level (low concentration) samples. • Recommended for screening of oxygenates and other compounds with poor purging efficiency. Consult the compound list in the method for purging efficiency characteristics.
Direct injection of soil gas sample into GC column for separation.	• Technique is quick with limited sample handling. • Holding time not an issue, provided samples are injected immediately after collection. • No transfer of analytes from one phase to another (i.e., gas to liquid to gas). • Can handle high level (concentrated) samples.	• Limited sample size; threshold limit on how much sample can be injected into GC column may result in elevated reporting limits • Elevated reporting limits may not meet the DQOs for risk assessment purposes. • Calibration not matrix-matched.	• Recommended for screening purposes (qualitative data) and routine monitoring of limited number of known compounds. • Calibration standards prepared by expansion of liquid standards in vials/bulb may not be amenable to all compounds.

b) Calibration for 8260

Analytical laboratories should use vapor-phase standards to calibrate their instruments when employing USEPA Method 8260B/C for soil gas analysis. Vapor-phase standards used for ambient air testing are readily available and can be used

for soil gas analyses. Many laboratories use liquid-phase standards to prepare the calibration curve, for logistical and economic reasons, rather than using a vapor-phase standard. This is problematic because the vapor pressure, solubility, and other properties of a compound may be different in a liquid-phase standard than in a vapor-phase standard, especially when it is subjected to being forced into an aqueous phase in the sparger and then forced out into a gaseous phase again during the purge. Therefore, the calibration curve should be matrix-matched by using a vapor-phase standard.

Some laboratories are essentially using a headspace technique modification that attempts to matrix-match a liquid-phase calibration standard to soil gas samples. The technique entails injecting the liquid standard into an empty volatile organic analysis (VOA) vial through the septum or into glass bulbs and allowing the standard to vaporize and equilibrate before taking an aliquot of the vapor and injecting it into the gas chromatograph. This technique may not be amenable to all VOCs since it is dependent on the vapor pressures of the target analytes and how well each compound will vaporize in the vial or bulb. The few laboratories that use this technique are analyzing a limited number of analytes. Laboratories using this approach should standardize their temperature range, time for equilibration, and other practices in preparing the calibration standards. Furthermore, laboratories using this technique should validate and verify the accuracy of their vaporized standards by comparing their calibration with vapor-phase standards (see next section).

c) Calibration Validation for 8260

Calibration curves are validated by analyzing a mid-level National Institute of Standard and Technology (NIST) traceable vapor-phase validation check standard on a routine basis. The vapor-phase validation check standard, or equivalent, should be analyzed and evaluated every time a calibration curve is generated. Routinely, a vapor-phase check standard should be analyzed with each analytical batch to verify the validity of the liquid calibration curve. In addition, the vapor-phase validation check standard should include all the target analytes in the calibration curve. Because the purging characteristic of each compound is different, laboratories should establish their own acceptance criteria for each compound for the validation. The acceptance criteria should be based on experimental and/or historical data. This validation procedure is recommended, regardless of the sample introduction technique being used, to provide technically sound and defensible data.

For laboratories that calibrate their analytical system using the headspace technique, validation of the calibration curve should be conducted by injecting an aliquot of a vapor-phase NIST traceable or equivalent standard at a volume equal in concentration to the mid-point of the calibration curve to validate and to verify the accuracy of their standard preparation technique. The volume needs to be calculated based on the volume of the vaporized standard injected and the concentration of the standard. The frequency of the validation, percent differences of validation check and reportable data should be the same as for liquid standards.

If vapor-phase standards are used to prepare the calibration curve with USEPA Method 8260B, the validation referenced above is not necessary. However, analytical laboratories should verify the accuracy of their vapor-phase standards periodically by comparing them to a secondary standard either from another source or to a different lot of standards from the same supplier.

d) Sample Volume for 8260

The sample volume is determined by the sample introduction technique in conjunction with the project reporting limits. If lower reporting limits are desired, then a larger volume of sample should be injected. The volume for the direct injection technique is limited since only a very small volume can be injected onto the GC, whereas a larger volume can be used with the sparger technique. Sample volumes of five to 250 milliliters (mL) are typically used, although some laboratories use up to 500 mL of sample.

Larger volume samples are introduced in aliquots into a sparger filled with water by forcing the water directly through the trap. The contact time with the water is minimal. More water-soluble compounds such as ketones and methyl tertiary butyl ether will preferentially stay in the water phase until purged out.

Laboratories should validate their injection technique by injecting aliquots of vapor-phase standards into the sparger and evaluating the recovery levels. The recommended recovery range is 70 to130 percent for most compounds.

e) Purge Time for 8260

USEPA Method 8260B specifies a purge time of 11 minutes. Laboratories should not deviate from this specification as the method is optimized for the recovery of all target analytes. If modifications are required, they should be documented and validated with vapor-phased standards.

f) Autosamplers for 8260

Using an autosampler with modified USEPA Method 8260B/C is not reliable. The soil gas sample is transferred for analysis from a soil gas collection vessel such as a syringe to another secondary container such as a VOA vial, resulting in sample loss. This technique is not capable of handling variable volumes of soil gas sample, especially larger sample volumes needed to adjust for the desired site-specific compound RLs. Furthermore, gases and the more water-soluble compounds have questionable recoveries.

g) Screening

When using a GC/MS, laboratories should screen samples before analysis with a GC/FID to avoid saturation of the mass spectrometer. This will also provide information on the proper dilution(s) needed for quantification.

h) Applicability of 8260

Modified Method 8260B works well for soil gas samples with VOC concentrations greater than 0.1 μg/L or 100 μg/m^3 and for most compounds.

i) Other Modifications

The project proponent should propose method modifications to the regulatory agencies prior to implementation, leaving an adequate time for regulatory review and comment. Standard operating procedures (SOP) for the modified sample preparation and analysis should be provided. The laboratory using the modification must validate the procedures before implementation and provide the data and report for review. Refer to the Performance-Based Measurement System Section above.

USEPA Method TO-15

Although TO-15 (USEPA, 1999) was designed for collecting and analyzing VOCs in ambient air samples, this method can successfully be used for soil gas analysis. A known volume of sample is collected into a passivated stainless steel canister, then concentrated onto a solid sorbent trap in the laboratory and refocused on a second trap before being thermally desorbed onto the GC column for separation.

There are two techniques for introducing whole air samples by TO-15 from the canister into the gas chromatograph. These are the multisorbent pack method and a cold trap method. The multisorbent pack method uses different types of solid sorbent traps with different retentive properties selectively concentrating VOCs depending on the analytes. The cold trap method concentrates VOCs by condensing them on a cold surface.

TO-15 was designed for ambient air where the analyte concentrations have a narrow concentration range. In contrast, soil gas samples have a wide range of concentrations. Therefore, soil gas samples should be pre-screened before analysis. Pre-screening provides for adjusting the operating parameters such as dilution and recalibration to avoid overloading the instrument and/or creating problems such as carryovers.

Of all the USEPA methods, Method TO-15 is best suited for soil gas analysis since it is designed for gas samples. Laboratories employing TO-15 to analyze soil gas samples should adhere to all the basic requirements of the method including calibration and QA/QC protocols.

Advantages and disadvantages of TO-15 modifications are described in Table 3. Since a soil gas sample is treated in the same manner as an ambient air sample, there should be no modification needed to analyze soil gas samples with this method.

TABLE F-3
Advantages and Disadvantages of Modifications to TO-15

Modification	Advantages	Disadvantages	Comments
Samples collected in polymer gas sampling bags	• Lower Cost; • Easily; transported • Selected compounds have been shown to be stable. [1]	• Potential background issues (bag off-gas); • Adsorption of some compounds; • Bags do not conform to TO-15 protocol; and • Limited holding time (6 hours).	
Samples injected into instrument by filling injection loop with syringe	• Good for highly concentrated samples.	• Limited volume can be analyzed (0.5 – 5 cc); and • Not suited for low concentration samples.	• May only be used for highly concentrated samples.
Use of portable GC/MS system (e.g., Hapsite®) [2]	• Ideal for field screening.	• May not be able to handle the various types of sampling media. Samples have to be transferred for analysis (e.g., canister to syringe or polymer gas sampling bag.	• Considered to be an automated gas chromatograph under Section 1.6 of method.

[1] Hartman (2006)
[2] DTSC Environmental Chemistry Laboratory should be consulted.

a) Quality Assurance/Quality Control for TO-15

The QA/QC requirements for Method TO-15 differ from USEPA Method 8260B/C. The calibration curve and tuning need to be checked every 24 hours for Method TO-15 compared to every 12 hours for Method 8260B/C. There are no requirements to verify the calibration curve with a second-source standard, to analyze matrix spike/matrix spike duplicate samples (MS/MSD), to run laboratory control samples (LCS) or to use surrogates for Method TO-15.

b) Use of Autosamplers for TO-15

Samples in passivated stainless steel canisters may be analyzed without any further sample transfer if the canisters are directly connected to an autosampler. Additional blank samples should be included in the sample sequence to evaluate possible carryover of highly contaminated samples.

Samples in polymer gas sampling bags may also be analyzed with an autosampler provided the sample container is connected in such a way to ensure there is no leakage. A vacuum pump is needed to pull the sample into the instrument. Additional blank samples should be included in the sample sequence to evaluate possible carryover of highly contaminated samples.

Polymer gas sampling bags are sometimes used for dilution of highly concentrated samples from canisters. The bags used for dilutions should be new and thoroughly cleaned.

c) Canister Certification for TO-15

Although canister certification may not be appropriate for all projects, certifying canisters as clean canisters decreases the level of uncertainty associated with the prior use of the canister. Certified canisters are leak tested and documented to be clean and free of any contaminants. The project DQOs dictate the certification level and certification frequency. The certification level is determined by the reporting limits. The certification frequency refers to the number or percent of canisters requiring certification. Canisters should be certified with the same data acquisition mode as the sample analysis.

Soil gas samples collected in canisters may be shipped since they are under vacuum. The Department of Transportation (DOT) in title 49 Code of Federal Regulations, Parts 100-185, requires that canister pressure must not exceed 400 pound-force per square inch gauge (psig). Consult with the federal code of regulations and the shipping agent on specific regulations pertaining to shipping and transporting various materials.

USEPA Method TO-17

Method TO-17 (USEPA, 1999) is primarily a sampling method coupled with the analytical approach used in USEPA Method TO-15. In TO-17, a known volume of soil gas is pulled through a sorbent tube to collect the VOCs followed by VOC desorption onto the GC column for separation and analysis by the mass spectrometer. Other detectors or combinations of detectors, such as the ECD/FID in series, can be used with this method provided that the criteria specified in Section 14 of the method are met.

Like TO-15, TO-17 was designed for collecting and analyzing VOCs in ambient air samples, but can successfully be used for soil gas sampling and analysis.

Since a soil gas sample is treated in the same manner as an ambient air sample, there should be no modification needed to analyze soil gas samples with this method.

a) Conditioning and Calibration for TO-17

Freshly packed or new sorbent tubes must be conditioned before use. Conditioning entails heating the tubes at specific temperatures with a set gas flow rate (See Table 2 of method). Tubes can be reused for multiple thermal desorption cycles until the safe sampling volume validation procedures fails (USEPA, 1999, Method TO-17, Section 13.1.2).

For calibration, either vapor-phase or liquid standards can be used. Liquid standards are directly injected into the sorbent tubes for calibration. No calibration validation with gas-phase standards is needed if liquid standards are used.

According to USEPA 1999, "Sample tubes awaiting analysis on an automated desorption system must be completely sealed before thermal desorption to prevent ingress of VOC contaminants from the laboratory air and to prevent losses of weakly retained analytes from the tube." (Method TO-17, Section 8.2.1.2)

b) Advantages and Disadvantages

The TO-17 method has some advantages over Methods TO-15 and 8260. One advantage is the ability to collect and concentrate a larger volume of sample, resulting in lower reporting limits because the entire volume of VOCs trapped on the sorbent tube is desorbed completely as a single aliquot of sample. In comparison, for TO-15, only a smaller sub-sample is usually analyzed at a time, resulting in elevated reporting limits. Another advantage of Method TO-17 is that this method can be used on low vapor pressure compounds such as naphthalene. Finally, the collection apparatus and sample tubes for Method TO-17 are compact and easily transportable.

However, there are disadvantages in using a sorbent tube as required by TO-17. Some of the primary disadvantages include:

- The inability to repeat an analysis on the same sample;
- Potential MS overload due to desorption of concentrated sample; and
- Column breakthrough.

The unfamiliarity of practitioners in handling and collecting soil gas samples onto sorbent tubes is another potential disadvantage, since in the United States, soil gas samples are mostly collected in canisters and syringes rather than onto sorbent tubes. Sorbent tubes, however, are used widely in Europe.

With Method TO-15, additional analysis on the same sample can be easily performed by withdrawing another sample aliquot from the sample canister. With Method TO-17, once all the compounds are desorbed from the sorbent tube the sample is completely used. Repeating a sample analysis is possible only if multiple (duplicate) sorbent tubes are collected. Multiple sorbent tubes can be collected concurrently if several sorbent tubes are assembled in parallel during sampling. Moreover, recent advances in thermal desorption (TD) technology have made it possible to split sample into fractions for repeat runs from the same sorbent tube.

For quantification, the volume of air passing through the cartridge must be measured and documented. Moisture can be a problem with sorbent cartridges, but it can be managed by using alternative sorbents, sample splitting or dry purging (USEPA, 1999, Method TO-17, Section 7.2). The use of in-line water traps is not recommended since the traps may absorb target analytes. Other issues with TO-17

include interferences from sorbent artifacts (USEPA, 1999, Method TO-17, Section 7.1). There is no single universal sorbent that can be used for all possible VOCs. The choice of sorbent depends on the target VOCs. However, multi-bed (sorbent) tubes are also available that can be used to sample for a wide range of target compounds.

Method TO-17 should not be used to analyze highly concentrated soil gas samples. Highly concentrated soil gas samples will saturate the MS if completely desorbed into the GC. Therefore, the approximate concentration of VOCs or SVOCs should be predetermined by field screening specific soil gas sampling locations using another analytical method such as USEPA 5035/8260 or USEPA 5030/8260, prior to deployment.

USEPA Method TO-13A

Although TO-13A (USEPA, 1999) was designed for collecting and analyzing PAHs in ambient air, this method can successfully be used for soil gas sampling and analysis.

Samples are collected/adsorbed onto a combination of filter and sorbent cartridges followed by solvent extraction, cleanup (if needed) and concentration before analysis by GC/MS. Since a soil gas sample is treated in the same manner as an ambient air sample, there should be no modification needed to analyze soil gas samples with this method. The following need to be evaluated prior to sampling:

- Volume needed to meet the required reporting limits; and
- Sampling flow rate relative to the capacity of the sampling tube.

Scan vs. SIM Mode

Scan and Selected Ion Monitoring (SIM) are two data acquisition modes with GC/MS methods. The most common mode is the Scan mode in which the detector scans from high to low across a range of masses continuously. In scan mode, compound identification is made by comparing the samples mass spectrum against a spectral library. In SIM mode, only a few selected ion fragments or masses are monitored. Because the detector concentrates its time only on selected masses, the sensitivity is maximized. Due to the increase in sensitivity, lower reporting limits are possible.

Although SIM can provide lower reporting limits, its utility is limited and should only be used for a site that is completely characterized. It should never be used for initial site characterization because the instrument is set to monitor only the selected target compounds. SIM may be used to overcome some background problems in soil and water matrices. However, there are inherent matrix effects with soil gas samples; therefore, SIM is not always the best choice to use with soil gas samples.

MODIFIED GC METHODS

Two primary GC methods associated with soil gas analysis are USEPA Methods 8015 and 8021. GC methods may be used for routine monitoring when the contaminants and their approximate concentrations are known. The GC method should not be used for initial characterization. When new, unknown compounds are detected, these should be confirmed by analysis with a GC/MS method. On a routine basis, at least 10 percent of positive results from GC analysis should be confirmed by analysis with a GC/MS method.

Various versions of each method exist in the SW-846 manual (USEPA 2000). Laboratories should use the most updated versions of the method and state in their analytical reports which version of the method was used.

USEPA Method 8015 (8015, 8015A, 8015B, 8015C and 8015D)

USEPA Method 8015 (Non-halogenated Organics by Gas Chromatography) is used to determine the concentration of volatile and semi-volatile nonhalogenated organic compounds, triethylamine and petroleum hydrocarbons (C5-C32) (USEPA 2000). Samples are introduced into the GC by one of the following methods:

- Purge-and-trap;
- Equilibrium headspace;
- Direct injection;
- Injection of azeotropic distillation concentrate;
- Injection of vacuum distillation concentrate; and
- Injection of solvent extraction concentrate.

A FID is used with all modifications of Method 8015. In order to apply this method to soil gas samples, the same types of modifications described for Method 8260B/C should be used. Samples are either injected into a purge-and-trap sparger filled with water and purged or directly injected into the GC.

USEPA Method 8021 (8021, 8021A and 8021B)

USEPA Method 8021B (Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors) is used to determine the concentration of halogenated and aromatic volatile organic compounds (USEPA 2000). Samples are introduced into the GC by one of the following methods:

- Direct injection;
- Purge-and-trap;
- Headspace; and
- Injection of vacuum distillation concentrate.

Both a PID and a Hall electrolytic conductivity detector (HECD) are used with Method 8021 in either series or as a single detector. In order to apply Method 8021 to soil gas

samples, the same types of modifications described for Method 8260B/C should be used.

QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

QA/QC requirements for soil gas testing should be outlined in the project-specific Quality Assurance Project Plan (QAPP) or the specific modified USEPA Method being employed. Soil gas analytical laboratories should comply with those QA/QC requirements and add additional checks as needed.

QA/QC for Soil Gas Testing

The following are the QA/QC protocols that should be included with soil gas testing. Most of these QA/QC protocols are required with USEPA methods as well as laboratory certification (see later):

a) Daily Tune

For GC/MS methods, laboratories should conduct the daily tune as specified in the respective method. The instrument must meet the tuning criteria before sample analysis.

b) Initial Calibration

The calibration curve should consist of a minimum of five points. The maximum percent relative standard deviation (%RSD) for each target compound should not exceed 30 percent. For USEPA Methods TO-15 and TO-17, two compounds are allowed up to 40 percent RSD.

c) Daily Calibration (Continuing Calibration)

The calibration curve for each compound of interest should be verified with each analytical batch, or once every 12 hours (24 hours for TO-15 and TO-17). Verification is conducted by analyzing the mid-point calibration standard. The results from the mid-point standard should be within 20 percent (30 percent for TO-15 and TO-17) of the initial calibration in order to assume the calibration curve is valid.

d) End of Run Calibration Check

A mid-level calibration standard should be run for each 20-sample batch or at the end of the run, whichever is more often. Verification is conducted by analyzing the mid-point calibration standard. The results from the mid-point standard should be within 20 percent of the initial calibration in order to ensure the calibration curve is still valid at the end of the batch run and the instrument sensitivity has not deteriorated. For USEPA 8260B/C, TO-15 and TO-17 methods, there is no requirement for this analysis. The instrument is monitored by internal standards which are added to every sample. The need for an end-of-the-run calibration check for GC/MS methods is at the discretion of the parties involved in the project and

should be based on DQOs. For those methods where there is no internal standard monitoring, the end of run calibration check may be needed to evaluate the instrument.

e) Method Blanks

Method blanks are used to evaluate contamination from the analytical process. This is a sample prepared by the analytical laboratory using an analyte-free matrix and carried through the entire sample preparation and analytical procedure. The analyte-free matrix for soil gas is humidified laboratory grade ultra-pure air or ultra-pure nitrogen.

f) Container Blanks

If sampling containers are reused or recycled then at least one decontaminated sample container per 20 samples or per batch, whichever is more often, should be analyzed as a container blank sample to verify the effectiveness of the decontamination procedures. Other components such as fittings and valves of the sampling stream that are subject to carryover/contamination should also be monitored. Note: This was previously referred to as the “Method Blank” in the 2003 Advisory – Active Soil Gas Investigations).

g) Trip Blanks

Trip blanks consist of humidified laboratory-grade ultra-pure air. Trip blanks evaluate whether shipping and handling procedures are introducing contaminants into the samples, and if cross-contamination in the form of VOC migration has occurred between the collected VOC samples. Trip blanks are only required if samples are collected in polymer gas sampling bags or sorbent tubes for TO-17 analysis. A minimum of one trip blank per shipping container should be collected and analyzed for target compounds whenever VOC samples are shipped offsite for analysis. The trip blank containers and media should be the same as the site samples. USEPA Method TO-15 does not have specific trip blank requirements. Therefore, trip blanks are not needed if samples are collected in passivated stainless steel canisters.

h) Duplicate Samples

Duplicate sample analysis evaluates the reproducibility (precision) of the sampling process. At least one duplicate sample per 20 samples or per batch, whichever is more often, should be collected and analyzed. Duplicate samples should be collected in separate containers at the same location and depth. A duplicate sample can be collected by using a T-splitter at the point of collection to divide the sample stream into two separate sample containers.

i) Replicate Samples

Replicate sample analysis evaluates the reproducibility (precision) of the laboratory’s analytical ability and is used to estimate sample variability. At least one replicate

sample per 20 samples or per batch, whichever is more often, should be reanalyzed by the laboratory to assess analytical precision.

j) Matrix Spike/Matrix Spike Duplicates (MS/MSD)

The requirement for MS/MSD with modified USEPA Method 8260B/C is discretionary. Although MS/MSD samples are required with the USEPA 8000 series methods, there is no practical approach to apply this requirement to soil gas samples. For true MS/MSD samples, spike compounds must be added to the sample during the collection process. With soil gas samples, this is not technically feasible. The addition of a spike into the sparger with modified USEPA Method 8260B/C does not duplicate the actual condition of the sample as it is collected, processed and analyzed.

There is also no requirement for MS/MSD with USEPA Method TO-15 as the analysis of MS/MSD with TO-15 is impractical. Spike compounds are added at the same time that the sample is transferred into the concentrator. Because this does not truly assess the impact of the matrix on the recovery of the target compounds, the need for MS/MSD with Method TO-15 is at the discretion of the parties involved in the project and should be based on the DQOs.

k) Laboratory Control Sample (LCS)

LCS is a sample made with an aliquot of a clean (control) matrix similar to the sample matrix spiked with compounds that are representative of the target analytes and is used to document laboratory performance. For soil gas analysis, this QA/QC sample is not necessary since the “clean” matrix is humidified laboratory grade ultra-pure air. When prepared as such, this is equivalent to the daily calibration (continuing calibration) sample. It would be redundant to analyze this QA/QC sample; therefore, LCS samples are optional depending on the requirement of the project QAPP. Methods TO-13, TO-15 and TO-17 do not have any requirements for LCS sample analysis.

l) Surrogates

The use of surrogates in soil gas analysis is dependent on the method and container used. USEPA Method 8260B/C requires surrogates whereas Method TO-15 does not. Introducing surrogates into soil gas samples can present some logistical challenges, depending on the type of container being used to collect the sample. Surrogates are designed to monitor recoveries of target analytes. Therefore, they should be introduced at the point of sample collection in order to fully assess the recovery process.

For most laboratories that use modified USEPA Method 8260B/C, the surrogates are usually added to the water in the sparger either before or after the soil gas sample has been forced into the water. Vapor-phase surrogates (which are available for air analysis) can be theoretically added into soil gas sample aliquot in a gas-tight syringe just before injecting into the sparger. However, few if any laboratories are

using this practice for various reasons.

For laboratories using USEPA Method TO-15 the surrogates are added to the sample loop at the same time the soil gas sample is being loaded onto the concentrator. In both instances the surrogates are added after the sample has already been collected. There is a gap between when the sample is collected and when the sample is analyzed where there are no surrogates to monitor the process.

Commercially prepared surrogates or standards should be used. Preparing vapor internal standards or surrogates with liquid standards in either polymer gas sampling bags or glass bulbs is not recommended because of the inherent difficulty in preparing the surrogates or standards. Some laboratories add vapor surrogates immediately after sampling to samples collected in glass bulbs. The vapor surrogates are actually liquid surrogates injected into a glass bulb and allowed to expand. Aliquots of the vapor surrogates are injected into the glass bulb with the soil gas sample. The internal standards or surrogates should be completely vaporized before aliquots are taken. Droplets of liquid standards or surrogates can adhere to the internal surface of the bags or bulbs. Due to variations with where and when the surrogates are added to the soil gas samples, laboratories are advised to note in their final analytical reports the exact step in the process where the surrogates (if used) are added so the results can be evaluated accordingly.

m) Reporting Limit Verification

The RL is the limit of quantification reported by the analyzing laboratory. The RL should not be lower than the lowest calibration point. The RL should be validated periodically (recommended with each batch of samples) by spiking a blank sample at the RL level. There is no limit on the number of samples per batch for RL verification. If the RL is set at the lowest calibration point then verification is not needed.

n) Acceptance Limits

Based on laboratory performance, laboratories should establish their own acceptance limits for their QA/QC parameters. QA/QC parameters include percent recoveries for surrogates, matrix spikes, laboratory control samples and percent relative difference for duplicates. The limits should be evaluated and updated periodically. For guidance on establishing acceptance limits consult USEPA Method 8000B (December 1996), Section 8.0 of SW-846 (USEPA 2000).

o) Standard Operating Procedures

Laboratories should have detailed written Standard Operating Procedures (SOP) for their soil gas sampling and testing procedures. Copies of the SOP should be available in the laboratory for review and reference. The SOP should be reviewed on an annual basis and updated as needed. Field procedures, including sampling procedures, can be written as a separate SOP from the laboratory analytical procedures.

DATA REVIEW

All soil gas data should be reviewed in detail to ensure all QA/QC parameters are within specified control limits.

Soil gas data should be reviewed and evaluated as described in the most current version of DTSC's *"Guidance for the Evaluation of Subsurface Vapor Intrusion to Indoor Air"*.

DETECTION LIMITS VERSUS REPORTING LIMITS

A detection limit is defined as the *"the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, and is determined from analysis of a sample in a given matrix type containing the analyte"* (SW-846, Chapter One, Quality Control, Revision 1, July 1992). A RL is defined as the lowest concentration of an analyte that can be detected in a sample by the given analytical procedure taking into account sample matrix, interferences, dilution factor and the lowest point of the calibration curve. Laboratories should use the RL in their analytical reports since it is a more reliable indicator of the limit of detection.

Reporting Limits

Reporting limits should be selected prior to choosing analytical methods and be based on project DQOs. Sampling protocols, analytical method(s) used, list of target compounds, and other DQOs should be considered when selecting project RLs. For risk assessments, the reporting limits should be lower than the screening levels for the site.

Table F-4 delineates the reporting limits of the common soil gas analytical techniques for select analytical methods. The ranges in this table are based on a survey of analytical laboratories conducted by the Soil Gas Advisory Workgroup. For the reporting limits of other methods/techniques, consult with the analytical laboratory.

TABLE F-4
Reporting Limits

Analytical Method/Technique	Reporting Limit Range*	Comments
Modified USEPA 8260B/C: Direct injection of soil gas into sparger with water.	20 – 5000 μg/m^3 (most compounds at 1000 μg/m^3 or lower)	Sample size dependent. Most samples are 5-250 cc (mL).
Modified USEPA 8260B/C: Direct injection of soil gas into GC column.	100 – 1000 μg/m^3	
Modified USEPA TO-15 (Conventional GC/MS system).	Scan Mode: 0.7 – 200 μg/m^3 SIM Mode: 0.004 – 0.20 μg/m^3	
Modified USEPA TO-15 (Using portable GC/MS system (e.g., Hapsite®).	4 – 100 μg/m^3	

Reporting Units

Analytical laboratories should report soil gas results in μg/m^3 rather than μg/L or parts per billion by volume (ppbv). Although 1,000 μg/m^3 is equivalent to one μg/L, neither can be converted to ppbv by simply moving the decimal point. The ppbv conversion is a function of the molecular weight of the compound in question, as shown in the example below. Environmental practitioners should verify that soil gas sample results are calculated correctly and reported in the proper units.

Example: benzene in air/soil gas with molecular weight=78.11 is converted as follows:

1.0 μg /L Benzene = 1000 μg /m^3 Benzene = 315 ppbv Benzene*

*ppbv = [(μg/L) x (RT)] x 1000/(MW) x P **or** ppbv = [(μg/m^3) x (RT)] /(MW) x P

where:
$\mu g/L$ = 1.0
$\mu g/m^3$ = 1000
R = 0.0825 L-atm/mole-°K (Ideal Gas Law Constant)
T = 298°K (Standard Temperature)
1000 = Conversion of 1 m^3 = 1000 L
MW = 78.11 (Molecular Weight of Benzene)
P = 1 atm (Standard Pressure)

Laboratories using TO methods generally report results in ppbv, and may continue to do so, but should also provide the conversion to μg/m^3.

VARIABILITY AND COMPARING RESULTS

Variability in soil gas results comes from differences in the laboratory instruments,

sample introduction techniques, and the analyst's skill, experience and practices, as well as variability in field sample collection methods and in sample containers. Finally, there is also a variation in the sample matrix. A replicate sample collected immediately after the original sample may not be the same due to spatial and temporal differences.

To evaluate the comparability of results from two different methods, calculate the Relative Percent Difference (RPD) of the results. The RPD is calculated with the formula:

$$RPD = 100 \times (C_1-C_2)/[(C_1+C_2)/2]$$

where: C_1 = Result from the first method
C_2 = Result from the second method

In instances where soil gas results from the same source analyzed by two different methods differ by more than 50 percent RPD, the results should be validated. Validation involves reviewing the sampling procedures, collection containers, sample introduction technique and QA/QC data. Any differences should be evaluated and explained. All QA/QC results should be reviewed to make sure the parameters are within the established control limits and the calculations checked. The final analytical results from modified 8260B/C should be reported and calculated as $\mu g/m^3$ or $\mu g/L$ (see section above on reporting units).

Some compounds are better analyzed by one method than the other due to their physical nature. Some compounds have a better recovery if a liquid standard is used whereas, the vapor phase standard will purge poorly. Highly volatile VOCs are recovered well with modified 8260B/C compared to TO-15. Resampling and reanalyzing samples may be necessary if the recovery discrepancies cannot be explained after validation.

METHOD REFERENCES IN ANALYTICAL REPORTS

The analytical method used to test soil gas samples and any modifications to the analytical method should be described in the laboratory reports. Refer to the Performance-Based Measurement Systems Section above for information on referencing PBMS.

LABORATORY CERTIFICATION

All laboratories performing soil gas testing should be certified. According to the California Health and Safety Code Section 25356.1.5(e), exposure assessments shall include development of reasonable maximum estimates or exposure to VOCs that may enter existing or future structures on a site. Section 25358.4 requires that analysis of any material, that is required to show compliance with Chapter 6.8 of the Health and Safety Code, shall be performed by a laboratory accredited by the Department of Public Health pursuant to Article 3 of Chapter 4 of Part 1 of Division 101.

Soil gas testing laboratories can obtain certification from the State Water Resources Control Board's Environmental Laboratory Accreditation Program (ELAP) for all analytical methods they are using for soil gas testing. Certification ensures that the laboratories have the requisite facilities, equipment and personnel to perform the testing, and have demonstrated competence and compliance with the methods being certified.

In addition, certification entails the validation of the analytical method as well as periodic checks with performance evaluation or blind samples (where available) to assess laboratory continued competence with the method.

Soil gas certification for USEPA Methods 8015, 8021, and 8260 is available from ELAP.

National Environmental Laboratory Accreditation Program (NELAP) accreditation for USEPA Methods TO-13A, TO-15 and TO-17 should be accepted in lieu of California ELAP certification for soil gas testing.

Laboratories that have either certification from ELAP or NELAP for USEPA Methods 8015, 8021 or 8260B for either soil or water matrices should obtain separate certification from ELAP for soil gas work with those methods.

ELAP will provide certification for PBMS as warranted. PBMS may be new techniques using available equipment, an entirely new method with novel techniques and equipment, or modifications of known published methods. PBMS must meet the criteria below:

- The process can be validated;
- It can be demonstrated that the process can meet project DQOs; and
- It can be demonstrated that the process can meet the specified method performance criteria.

REFERENCES

Hartman, B. 2006. How to Collect Reliable Soil-Gas Data for Risk-Based Applications-Specifically Vapor Intrusion; Part 4-Updates on Soil-Gas Collection and Analytical Procedures, LUSTLine Bulletin 53, September 2006.

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APPENDIX G BAROMETRIC PRESSURE, RAINFALL, AND SOIL DRAINAGE

BAROMETRIC PRESSURE FLUCTUATIONS

Soil Gas

Massmann and Farrier (1992) evaluated the significance of barometric pressure fluctuations on the transport of atmospheric gas into the vadose zone. They examined situations in which barometric fluctuations will yield a significant effect on the vadose zone. Model calculations showed that fresh air may migrate several meters into a highly permeable subsurface during large barometric pressure cycles and the depth of penetration increases as the thickness and permeability of the vadose zone increases. Massmann and Farrier (1992) thus suggested that the concentration of volatile contaminants may be lower when barometric pressures are high and that soil gas measurements will show the largest fluctuations during times of rapidly rising or falling barometric pressures. During these large barometric pressure changes, as indicated by Figure 8 of their paper, soil gas at 1.5 meters (5 feet) may be diluted with atmospheric air by 30 to 50 percent.

Surface Flux

Clements and Wilkening (1974) demonstrated empirically that atmospheric pressure changes of one to two percent associated with the passage of frontal systems will produce changes in the flux of radon from the subsurface by 20 to 60 percent. The actual magnitude of the change in the radon flux depends upon the rate of change of the barometric pressure and its duration. The effect of pressure changes on VOC concentrations in soil gas is expected to be similar.

RAINFALL EVENTS

Surface flux

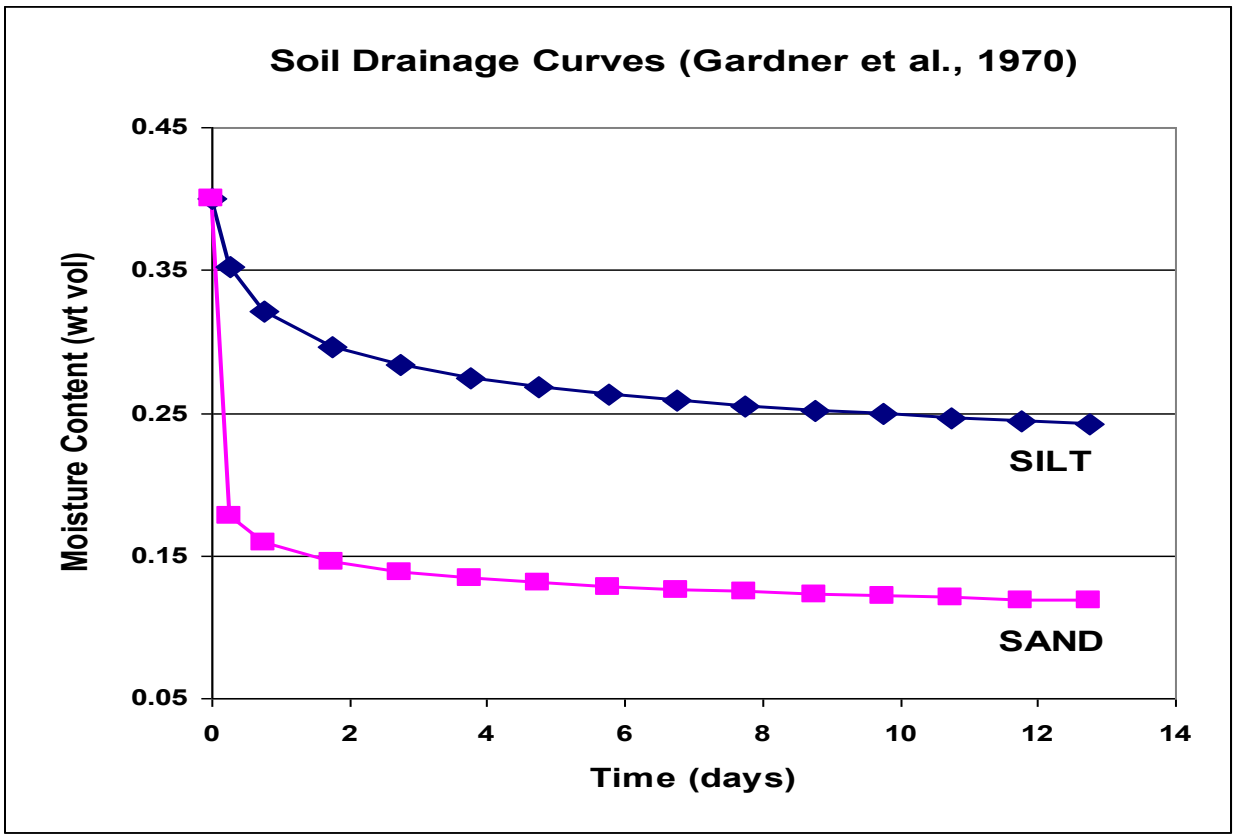
Kienbusch and Ranum (1986) evaluated the effects of rainfall on the collection of flux chamber measurements on open ground. In tests at a simulated landfill, water was added to dry soil cells to simulate rainfall. Trace precipitation (0.01 inches) had no effect on measured emission fluxes from the ground. Heavier rainfall (0.4 inches), however, did have an effect. The emission flux was decreased by 90 to 95 percent and the reduction in emissions lasted for over eight days. These results are consistent with other field observations (Radian Corporation, 1984; Eklund, 1992).

Soil Drainage

Gardner and others (1970) derived approximate solutions for unsaturated flow following irrigation. Their solutions can be used to evaluate the impact of rainfall on subsurface moisture conditions. The drainage of soil by gravity following infiltration of one centimeter of water for two soil types, sand and silt, is shown in Figure G-1. The initial

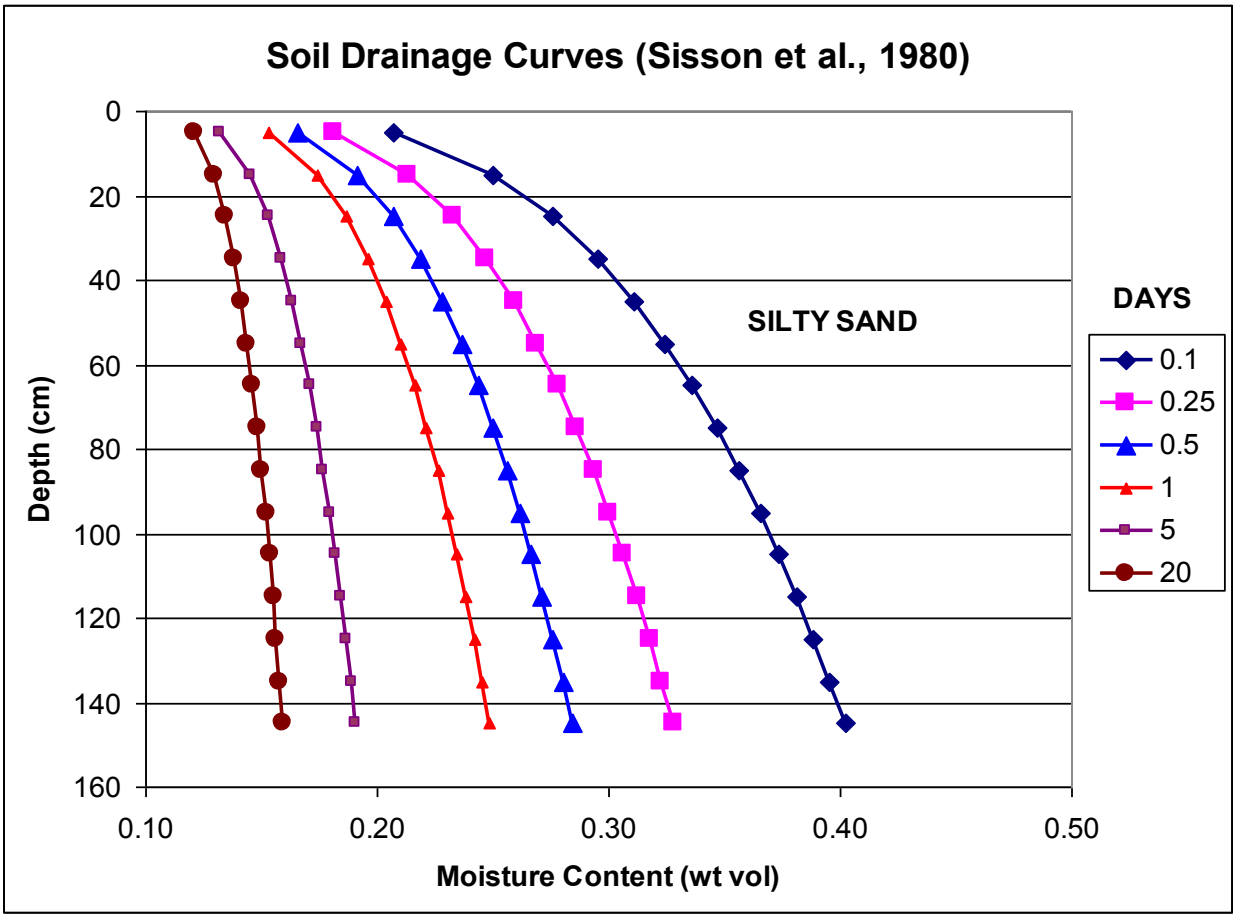
unsaturated hydraulic conductivity within the infiltration zone for the silt and sand was assumed to be one centimeter per day and 1000 centimeters per day, respectively. An instantaneous infiltration of one centimeter was used in the evaluation. The figure demonstrates that drainage to approximately asymptotic moisture conditions occurred within about five days for these two soil types.

FIGURE G-1



Likewise, Sisson and others (1980) derived a one-dimensional unsaturated flow equation to evaluate water movement in the vadose zone. Soil drainage curves from Sisson and others (1980) where a unit gradient was assumed are shown in Figure G-2. The figure denotes a silty sand scenario where the initial unsaturated hydraulic conductivity was assumed to be 100 centimeters per day. The model assumed that the vadose was saturated to 0.40 and allowed to drain. Moisture profiles are shown for five different time intervals. The figure demonstrates that drainage to near ambient moisture conditions of 0.10 occurred within about five days, agreeing with the approximations by Gardner and others (1970).

FIGURE G-2



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APPENDIX H REPORTING FORMAT AND PARAMETERS

RECORDKEEPING IN THE MOBILE LABORATORY

The following records concerning calibration standards and QA/QC should be maintained as hard copies in the mobile laboratory:

a) Date of calibration standard receipt;
b) Name of calibration supplier;
c) Calibration lot number;
d) Date of preparation for intermediate standards (dilution from the stock or concentrated solution from supplier);
e) Calibration ID number or other identification data;
f) Name of technician who performed the dilution;
g) Volume of concentrated solution taken for dilution;
h) Final volume after dilution;
i) Calculated concentration after dilution;
j) The latest and current initial calibration data for each instrument used; and
k) The currently-used laboratory standard operating procedures.

REPORTING OF SOIL GAS SAMPLE RESULTS AND QA/QC DATA

1) Report all sample test results for all compounds in the analyte list and QA/QC data. Compounds may be listed by retention time or in alphabetical order. Report any unidentified or tentatively identified peaks. Submit all data in electronic format and raw data, including the chromatograms for samples and standards, as requested.

2) Report the following for all calibration standards, QA/QC standards, and soil gas samples:

   a) Site name;
   b) Laboratory name;
   c) Date of analysis;
   d) Initials of analyst;
   e) Instrument identification;
   f) Injection amount;
   g) Injection time;
   h) Concentrations of each analysis;
   i) Laboratory quality control limits;
   j) Calculated results; and
   k) Notes or explanation of any outliers

3) Provide additional information, as specified, for different types of analyses. Tabulate and present in a clear legible format all information according to the following grouping:

a) Initial calibration

i) Source of standard (STD Lot ID No.);
ii) Detector;
iii) Retention time (RT);
iv) Standard mass or concentration;
v) Peak area;
vi) Response factor (RF);
vii) Average response factor (RF_{Ave});
viii) Standard deviation (SD_{n-1}) of RF;
ix) Percent relative standard deviation (% RSD); and
x) Acceptable range of %RSD (ACC RGE).

b) Daily calibration check sample and Laboratory Control Sample (LCS)

i) Source of standard;
ii) Detector;
iii) Retention time (RT);
iv) Standard mass or concentration;
v) Peak area;
vi) Response factor (RF);
vii) Percent difference between RF and RF_{Ave} from initial calibration (% DIFF); and
viii) Acceptable range of %DIFF (ACC RGE).

c) Soil Gas Sample

i) Sample identification;
ii) Sampling depth;
iii) Purge volume;
iv) Vacuum pressure;
v) Sampling date and time;
vi) Injection date and time;
vii) Injection amount;
viii) Dilution factor (or concentration factor if trap is used);
ix) Detector;
x) Retention time (RT);
xi) Peak area;
xii) Concentration in either μg/L or $\mu g/m^3$. Specific reporting units should be specified in the QAPP;
xiii) Total number of peaks found by each detector;
xiv) Unidentified peaks and/or other analytical remarks;
xv) Surrogate results; and
xvi) Control limits.

APPENDIX F

Sampling Analysis Plan (SAP)

Appendix F
Sampling Analysis Plan

Executive Summary

This document presents the constituents and sampling and analysis plan (SAP) for the Site Assessment Work Plan for the former Riverside Cement Plant (RCP) located in Jurupa Valley, California. The objectives of the SAWP are to determine and evaluate potential chemicals of potential concern (COPCs) and the lateral and vertical extents of COPCs in former known or suspected source areas to support a health risk evaluation and the Response Plan; determine and characterize the onsite soils for potential reuse as onsite fill or for off-Site disposal; to identify hexavalent chromium (Cr^{VI}) bearing materials that could generate dusts/emissions especially during grading or demolition activities; and Evaluate potential leaching of metals and hexavalent chromium into groundwater.

Site Background

The Site is approximately 206 acres located at 1500 Rubidoux Boulevard. The Site is bound to the west by Union Pacific Railroad (UPRR) track and Rubidoux Boulevard, to the north by El Rivino Road, to the south by three inactive quarries and Agua Mansa Road, and to the east by industrial development and Hall Avenue. As shown on Figure 1, the northwestern section of the Site contains undeveloped land and unpaved roads, while the northern section contains undeveloped land and a paved entrance road with a guard shack. The western section encompasses an entrance road, along with storage silos, a warehouse (Pack House), part of the former white cement manufacturing plant, and a one to two-story administration buildings (Truck Garage, Transportation Office, Storehouse, and Garage). The eastern section contains the raw materials storage area and the remnants from the Grey Cement Plant (primarily the support structures for the rotary kilns).

Historical Site Operations

The Site was in operation from the early 1900s until 2014. Operations on Site were divided into either the cement manufacturing operations or the Crestmore mine where mining of limestone and quarrying activities were conducted. The Crestmore mine was an underground mine and the four quarries were designated as the Wet Weather, the Chino, the Commercial, and the Lone Star quarries. The Wet Weather Quarry and Lone Star Quarry are located within the Site boundary, while the other quarries are located on the parcel located to the south of the Site

(Figure 1) which is not part of this SAWP. In addition, the Site includes various support facilities, heavy machinery, and administrative buildings that were related to the cement manufacturing plant and limestone quarrying and mining operations.

The facility underwent three major redevelopment phases over the life of the operation. From the early 1900s and the 1950s, the cement plant was located in the south western portion of the Site just north of the present day White Cement Plant. The facility at that time was operated using petroleum-based fuels (i.e. Bunker C) stored in fuel tanks. As the cement manufacturing process evolved through the use of updated technology and other changes in the industry, the facility went through an expansion and redevelopment phase from the late 1950's through early 1960's, which included conveyor belt systems and compress air, development of raw material storage areas, and upgrades to processing of raw materials to manufacture cement product.

During the second renovation phase, the facility was operated using both coal and petroleum-based fuels. By the 1960's, the original plant had been demolished and the present day facility was constructed that generated both grey and white cement product. The current facility was operated until it was shutdown in 2014.

In 1909, limestone and silicate rock quarrying activities began at the Site. In 1930, underground mining commenced at the Crestmore mine, which furnished most of the plant's requirements until 1939. The Wet Weather quarry was deepened and extended between 1940 and 1954. From 1930 to 1954, the block caving method was used, which was a process that allows for the bulk mining of large, relatively lower-grade materials. The room and pillar underground mining method was used between 1954 and 1986. Mining of limestone at the Site ceased in the late 1980s when mining operations penetrated the underlying aquifer eventually flooding the mine shafts. The resulting flood created the present day Crestmore Lake located on the parcel south of the Site which is not part of this SAWP (Figure 1).

Cement manufacturing operations began in 1914 and continued through 2008. The limestone obtained from the onsite quarries/mines was mixed with raw sand and clay materials imported from off-Site sources, and heated in rotary kilns to manufacture cement clinker. The raw materials were stored in onsite silos prior to 1960s until the Raw Material Storage Area (RMSA), located along the northwestern portion of the Site, was developed at which point the materials were staged there. The cement clinker was then crushed to create two primary types of cement (i.e., White and Grey Cement), which was then packaged and shipped offsite.

Cement Kiln Dust (CKD) was one of the primary by-products generated during the manufacturing process, and it exhibits a slight pinkish hue. When hydrated, CKD becomes dense and relatively impermeable to water, but does not form a cemented mass.

Prior to the 1970s, CKD was hauled from the kilns using end-dump trucks and reportedly placed with fill soils/mine spoils at several locations throughout the Site (Figure 1). The placement of CKD material primarily occurred from 1955 to 1979, and the primary location was the Wet Weather Quarry. Due to the advancement in the cement manufacturing process during the 1970's, previously discarded CKD material was reclaimed and used as feedstock in the cement making process. Also during the 1950s and early 1960s, the cement manufacturing process developed a closed-loop system with the incorporation of bag houses to capture CKD and other particulate materials generated during the cement manufacturing process. The CKD material was reclaimed beginning in the early 1970s until the operations were shutdown in 2014.

The equipment used to manufacture cement generally relied on electrical power for material conveyance/process control, and petroleum fuels for heating at various times over the life of the facility. Petroleum fuels were historically provided by a 6,000,000 gallon UST storing Bunker C fuel oil. Other underground storage tanks (USTs) at the Site were used to store petroleum products such as gasoline, diesel fuel, fuel oil, and waste oil.

1.0 Objectives

The proposed additional Site assessment and data collection activities will provide supplemental data within the six study areas identified in Langan's Preliminary Environmental Assessment (PEA), dated 20 December 2018. Certain areas will be deferred to the decontamination and demolition plan and the soil management plan address in the Site Assessment Work Pam (SAWP), due to areas not accessible because of buildings and structures that will be removed. The sampling activities were designed to address data gaps and additional data requests identified by the DTSC in their review comments of the PEA dated 28 February 2018

- DQO-1: determine and evaluate potential chemicals of potential concern (COPCs) and the lateral and vertical extents of COPCs in former known or suspected source areas to support a health risk evaluation and the Response Plan.
- DQO-2: determine and characterize the onsite soils for reuse as onsite fill or for off-Site disposal
- DQO-3: to identify hexavalent chromium (Cr^{VI}) bearing materials that could generate

dusts/emissions especially during grading or demolition activities

- DQO-4: Evaluate potential leaching of metals and hexavalent chromium into groundwater

2.0 Sampling and Analysis Plan

The investigation will include:

Advance an estimated eight (8) soil borings to collect soil samples for chemical analysis,

Advance an estimated eleven (11) soil gas borings and convert to them to nested soil gas probes completed at 5 feet and 15 feet below ground surface (bgs), and

Advance an estimated thirty-two (32) test pits and collect soil samples for chemical analysis

Based on a review of Site operational history and previous investigation results, the sampling locations are designed to provide supplemental data within the six study areas identified in Langan's Preliminary Environmental Assessment (PEA), dated 20 December 2018. The sampling activities were designed to address data gaps and additional data requests identified by the DTSC in their review comments of the PEA dated 28 February 2018. The current SAWP was developed based on these DTSC comments to the PEA, Site visits, dated 25 January 2018 and 16 March 2018, and meetings with DTSC, dated 23 February 2018, 24, 26 April, and 21 June 2018. Table 27 summarizes the sampling and analytical testing.

2.1 Analytical Plan

Samples collected during the investigation will be submitted to an offsite laboratory for analysis in accordance with the schedule presented in Table 27 of the SAWP. The primary samples will be given a unique designated ID during collection. An example identifier will be SMC-SB1-15, which identifies a soil boring sample collected in the Surface Mining and Crushing (SMC) study area at 15 feet below ground surface.

Analytical methods for soil and soil gas samples are presented in Table 27 of the SAWP, and will include:

Title 22 Metals by EPA Method 6010/7000

Hexavalent chromium by EPA Method 7199

TPH (carbon chain) by US EPA Method 8015 modified

SVOCs and PAHs by EPA Method 8270C SIM

PCBs by EPA by EPA Method 8082

Pesticides using EPA Method 8081

Dioxins by EPA Method 1613

Soil gas sample analyses will include the following:

VOCs (including TPH) by EPA Method 8260 (mobile laboratory)

2.2 Utility Clearance

Prior to initiating intrusive activities, each drilling and test pit location will be finalized and marked in the field using flagging and marking paint. A utility clearance subcontractor will clear each location using multiple geophysical methods. Langan will contact Dig Alert/811 system for utility clearance at least 48 hours prior to the start of field activities.

2.3 Test Pit Excavation

Test pits will be excavated at locations previously marked and cleared for subsurface utilities a by subcontractor. As necessary, dust control during field activities will be accomplished using a water truck. As presented in Section 8.0 in the SAWP, soil will be excavated from the test pits to a maximum depth of approximately 20 feet bgs at the discretion of Langan field personnel by a subcontractor using an excavator or similar type of equipment. Soil samples will be collected from the initially exposed side walls or pit floors to ensure, to the extent practicable, slough material is not commingled with the samples. The samples will be collected using hand tools or from the excavator bucket attachment and placed directly into laboratory supplied containers for analytical testing. The sample containers will consist of EPA 5035 sample kits with four (4) VOA vials for VOC and TPH analyses and two (2) 8 oz. jars for metals, hexavalent chromium, SVOCs/PAHs, PCBs, pesticides, and dioxin analyses. Soil samples will be field-screened using a photoionization detector (PID), visually examined, and classified in the field in accordance ATSM Method D-2488 with the Unified Soil Classification System (USCS) and recorded on a trench of field log. Excavated soils will be stockpiled at least five feet from the edge of the excavation on plastic sheeting for further characterization and sampling, as necessary.

The proposed SCAQMD Hexavalent Chromium Sampling Plan will consist of collecting composite samples at designated locations. The samples will be collected using hand tools or from the excavator bucket attachment. Four of the samples will be collected in a step out (100

feet) radial pattern around a center point sample location. Samples will be collected at one feet and five feet at each trench location. Samples collected from the Materials Storage Area will be collected in a linear fashion to provide adequate coverage for the storage bay they are collected in.

Following completion of field observation and sampling activities, the test pits will be backfilled with the excavated soils and partially compacted using the excavator bucket. Excavated soil with suspected impacts based on visual observations and/or PID readings will be placed on and covered with visqueen and analyzed, as necessary, for potential reuse or offsite disposal. All test pit locations will be staked or marked to allow subsequent surveying of coordinates by Langan personnel for preparation of as-built drawings, as necessary.

2.4 Soil Gas Sampling

Soil borings will be advanced to the depths specified in Table 27 of the SAWP followed by installation of nested soil gas probes. A California-certified mobile on-site analytical laboratory will be used to purge, sample and analyze the soil vapor samples collected from the soil gas vapor probes. The borings for the temporary soil gas vapor probes will be advanced with a hollow-stem auger. The soil gas vapor probes will be nested at each location at five (5) feet and fifteen (15) feet bgs. Split-spoon sampling will be performed during drilling operations to the total depth drilled. California ring samples will be collected at selected depths using a split barrel California sampler lined with brass rings in accordance with ASTM D3550. The vapor points will be constructed of Teflon® tubing or similar to a soil vapor screen with a 1.5-inch length and 3/8-inch diameter for sample collection. Monterey kiln-dried sand will be used for the one foot filter pack at the bottom of the vapor well borehole based on the DTSC Active Soil Gas Investigations guidance manual. The 1.5-inch screen will be set at the midpoint of the sand filter pack and place a one-foot layer of dry bentonite chips above the filter pack, followed by hydrated bentonite to the shallower interval at five feet. The shallower interval will be installed in the same manner with hydrated bentonite up to the ground surface. The hydrated bentonite will serve as a seal around the sample collection tubing to prevent ambient air intrusion into the soil gas sample. A closed valve will be installed at the end of the sample-collection tubing at the surface. The nested soil gas vapor probes will be completed at the surface with a locking protective well box. Soil gas vapor installation, sampling, and testing will be conducted in accordance with Jones Environmental Inc. Standard Operating Procedures Mobile Lab 8260B dated January 2016 Version 13 (see attached) in accordance with the Active Soil Gas Investigation (ASGI) released in July 2015 by the Department of Toxic Substances Control (DTSC). At minimum two rounds of soil gas samples will be collected from each of the soil gas

vapor points. Soil gas samples will be collected at a minimum of 48 hours following installation. Soil gas samples will be analyzed for volatile organic compounds (VOCs) and TPH using the onsite mobile laboratory using EPA method 8260B.

2.5 **Hollow Stem Auger and Soil Sampling**

Soil borings will be advanced using standard hollow-stem auger drilling equipment and methods to collect soil samples. The borings will be advanced to a total depth of approximately 20 to 100 feet bgs, or to refusal, whichever is encountered first. Completion depths and sampling intervals are presented in Table 27 of the SAWP. At locations where geophysical methods could not adequately clear utilities, a hand auger will be used to clear the boring to a depth of 5 feet bgs. The soil borings will be sampled at 5-foot intervals and at notable lithologic changes. The samples will be collected using a split-spoon sampler lined with three 2-inch diameter by 6-inch long stainless-steel sample tubes. Each soil sample interval will be screened for VOCs using a PID and recorded on the boring log. Each soil boring will be visually logged by Langan personnel in general accordance with ASTM Method D-2488 with the USCS to describe subsurface materials. Soil samples will be retained for chemical analysis from each boring at the depths specified in Table 27 of the SAWP. One stainless steel tube from the split-spoon sampler will be retained at the desired depth interval. The ends of these samples will be covered with Teflon sheets, capped at each end, appropriately labeled, bagged, and placed on ice inside an ice chest. Additional samples from the same interval will be collected using Terra core/EPA 5035 sample kits for analysis of VOCs and TPH in four VOA vials with preservative, labeled appropriately, bagged, and placed on ice inside on ice chest. The samples will be submitted to California-certified analytical laboratory under chain-of-custody protocol. Arrangements have been made to have the samples picked up at the site by the laboratory at the end of each work day or the following morning.

After the final sample is collected, each soil boring will be backfilled with the drill cuttings, unless suspected impacted soil is encountered based on observations, odor, and/or PID readings. If suspected impacted soil is encountered, this material will be contained either in 55-gallon drums or placed on and covered with plastic sheeting for additional analysis to evaluate the potential for reuse onsite or offsite disposal.

2.5 Equipment Decontamination Procedures

To avoid cross contamination, all drilling and sampling equipment used during investigation activities will be thoroughly cleaned prior to or upon arrival to the site, before and after each use, and before leaving the site with a non-phosphate detergent such as Alconox and rinsed

with clean water and methods to remove soil and debris from the tools. Decontamination water is managed as investigation derived waste (IDW), and will be transferred to 55 gallon drums and stored in an approved waste management area. As necessary, drilling equipment will be cleaned with a pressure washer.

2.6 Waste Management

Drilling and excavation soil cuttings generated during field activities will be evaluated by Langan. This material is anticipated to be placed back in the test pits and borings unless suspected impacted soil is encountered based on PID readings and odors. If suspected impacted soil is encountered, this material will be contained either in 55-gallon drums or placed on plastic and covered with plastic sheeting for additional analysis to evaluate the potential for reuse onsite or offsite disposal.

2.7 Land Survey

The locations of the soil borings, soil gas vapor probes and, test pits will be established using a hand held Trimble or other similar type system tied to GPS and plotted on existing plan sheets with established survey control.

APPENDIX G

Quality Assurance and Quality Control Plan (QAPP)

Appendix G
Quality Assurance
And Quality Control Plan

Executive Summary

This document presents the quality assurance and quality control plan (QAPP) for the Site Assessment Work Plan for the former Riverside Cement Plant located in Jurupa Valley, California. Jones Environmental, Inc. (Santa Fe Springs, CA) will be collecting and analyzing the soil gas samples from the soil gas probes using their mobile laboratory. Performance Analytical Laboratories (Signal Hill, CA) will be analyzing the soil samples collected from the soil borings and excavation test pits.

During field investigations and sampling events Quality Assurance and Quality Control (QA/QC) samples will be collected to demonstrate the reliability and defensibility of the data. QC samples collected in the field will be used to assess the overall quality of the sampling and analysis process. Field QC samples will include source-water blank, trip blanks, equipment rinsate blanks, field duplicate samples, and matrix spike/matrix spike duplicates (MS/MSD) samples. QA/QC sampling details for each sampling matrix are presented below.

1.0 Duplicate Samples (FDs)

Field duplicate (FD) samples are two samples collected at the same time, from the same source at the same depth or sample location as the associated field sample in an effort to duplicate the collection of a particular sample. Field duplicates are submitted to the project laboratory as separate samples ("blind"). Duplicates sample nomenclature is sequentially as DUP#-year-month-date (e.g., DUP1-2018-06-10, the first duplicate sample of the day June 10 2018). The primary sample and duplicate sample ID pairs will be recorded in the field logs.

The purpose of collecting field duplicates is to assess the consistency and precision of the field sampling process, including collection, transport, and analysis. The purpose of submitting blind duplicate samples is to assess the consistency and precision of the laboratory's analytical system. Field duplicates will be collected at a frequency of one for every 10 samples collected from soil borings and/or soil probes.

1.1 Equipment Rinsate Blanks (EBs)

A maximum of one equipment rinsate blank (EB) will be collected per reusable sampling device per day. EB sample nomenclature is sequentially as EB#-year-month-date (e.g., EB1-2018-06-10, the first EB

sample of the day June 10 2018). The EB sample will be collected following decontaminating the sampling device by pouring ASTM Type II laboratory supplied blank water over the decontaminated sampler directly into the sampling container to evaluate the success of decontamination on non-dedicated/disposable equipment. The EB will be collected and placed in appropriate sample containers and analyzed for the same parameters as the corresponding samples.

1.2 Trip Blanks (TBs)

The laboratory will supply 40-milliliter trip blanks (TB) comprised of laboratory deionized water with each shipment of VOC sampling containers sent from the laboratory, and transported to the site with the sample containers to be used during sampling, handled as an environmental sample, and returned to the laboratory for analysis. Trip blanks are not opened in the field. Trip blanks are prepared only when VOCs are collected for analysis to assess to potential introduction of contaminants from sample containers or during the transportation and storage procedures. Trip blank sample nomenclature is sequentially as TB#-year-month-date (e.g., TB1-2018-06-10, the first trip blank sample of the day June 10 2018). One trip blank will be included with each cooler containing field samples planned for VOC analyses.

1.3 Temperature Blanks

Temperature blanks are sent with each cooler shipped to the offsite laboratory that contains soil or groundwater samples requiring preservation at 4°C. Temperature blanks consist of a VOC vial or similar laboratory container filled with water. Temperature blanks are measured with a thermometer at the laboratory upon receipt to verify the temperature of the sampled contained in that cooler. One temperature blank will be shipped with each cooler to each offsite lab.

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

A matrix spike is a normal field sample that is spiked by the analytical laboratory with a known concentration of target analyte prior to sample preparation and then carried through the entire preparatory and analytical procedure. The matric spike duplicate is an intra-laboratory split of the same sample used for the MS that is also spiked with identical concentrations of target analyte and treated the same as the MS sample. MS/MSDs are used to monitor and document possible bias for a given analytical method in a given sample matrix. MS/MSDs are also used to measure the precision and accuracy of the laboratory analytical procedure.

MS/MSDs will be analyzed at a frequency of five percent.

1.5 Data Validation

The QA/QC samples described above will be used to help validate laboratory data. Ten percent of the data will undergo third-party data validation. The SI data packages will be provided in EPA Level III (using EPA-approved procedures) format with at least 10 percent of the data in Level IV (rigorous QA/QC protocols and documentation) format to meet data validation requirements. Data deliverables will go through data validation prior to being imported into summary tables or graphical programs. The analytical laboratory data quality will be measured and evaluated in terms of precision, representativeness, completeness, and comparability parameters. Data qualifiers prepared by the analytical laboratory and the data validation firm will be included on soil summary tables in the SI report.

In addition to the Jones Environmental QA/QC procedures identified in their SOP (January 2016), soil gas data will be validated by Jones Environmental, Inc. for soil gas samples collected from the soil gas vapor probes. Performance Analytical Laboratories, Inc. will validate the soil samples collected from the soil borings and excavation test pits.

2.0 Sample Handling and Custody

This section describes the sample preservation, hold times, and custody and shipping procedures.

2.1 Sample Custody and Shipping Requirements

Sample custody procedures include the use of field logbooks, sample labels, custody seals, and Chain of Custody (CoC) forms. Each person involved with sample handling must be familiar with CoC procedures prior to the start of field operations. The CoC must accompany the samples during shipment from the field to the laboratory.

A sample is considered to be in one's custody under the following circumstances:

- It is in one's actual possession.
- It is in one's view, after being in one's physical possession.
- It was in one's physical procession and locked up to prevent tampering.
- It is in a designated and identified secure area.

2.2 Sample Shipping and Chain of Custody

Proper sample handling, shipment, and maintenance of a CoC's are components of the quality system designed to obtain data that can be used to make project decisions. Sampling handling protocols and CoC requirements will be followed completely, accurately, and consistently. A properly completed CoC form must accompany all samples to the laboratory.

The unique sample IDs and descriptive information (such as site location, date, and time) will be listed on the CoC. Individuals relinquishing and receiving possession of samples will sign and note the time on the CoC form. The CoC must document the transfer of sample custody from the person who collected the sample to the offsite laboratory

Field samples should be sealed in individual bags and positioned within the cooler to prevent damage and maintain sample integrity. Hard plastic ice chest or coolers with similar durability will be used to ship samples. A signed CoC will be included in each shipment, and the cooler will be closed and secured. Arrangements will be made to have the samples picked up at the site by the laboratory at the end of each work day or the following morning. Sufficient quantities of ice will be used to ensure the samples remain in a chilled state.

2.3 Sample Preservation and Holding Time

Constituent	Measurement Parameter	Volume/Weight Required	Type of Container(s)	Preservative	Holding Time
VOC	Aqueous	3 – 40.0 mL VOAs	• VOA	• 4 ± 2°C • HCl (pH <2) • No	14 days
VOC	Soil	8 oz. jar (20g)	Glass Jar Acetate/ Stainless Steel/Brass Sleeve	• 4 ± 2°C • No headspace	14 days
		4 Terra Cores	Terra Core	• 4 ± 2°C	48 hours
		3 Preserved VOAs (20g)	3 VOAs (2-NaHSO4, 1-	• NaHSO4 • MeOH	14 days
VOC	Soil Gas/Air	Max: 250cc	Gas-tight glass	• Protect from	30 minutes
		1 Liter	Tedlar® Bag	• Protect from light	• 6 hours (DTSC) • 3 Days
TPH	Soil/Aqueous	4 – 40.0 mL VOAs	VOA	• 4 ± 2°C • HCl (pH <2) • No	14 days
Metals	Soil	8 oz Jar (20g)	Glass Jar	• 4 ± 2°C	180 days

Metals	Aqueous	500 ml	Polyethylene/Glass	• $HN0_3$	180 days
Cr^{VI}	Soil	8 oz. jar (20g)	Glass Jar	• 4 ± 2°C	28 days
Cr^{VI}	Aqueous	500 ml	Polyethylene/Glass	• 4 ± 2°C	24 hours
PCB	Soil	8 oz. jar (20g)	Glass Jar	• 4 ± 2°C	7 days
PCB	Aqueous	1000 ml	Amber Glass	• 4 ± 2°C	7 days
SVOC/PAH	Soil	8 oz. jar (20g)	Glass Jar	• 4 ± 2°C	7 days
SVOC/PAH	Aqueous	1000 ml	Amber Glass	• 4 ± 2°C	7 days

2.4 Soil Vapor Sample Handling Method Procedures

The following soil vapor sampling handling procedure is cited from Jones Environmental's Standard Operating Procedure and will be followed. The soil vapor samples will be collected on site by Jones Environmental using their State-certified mobile analytical laboratory. The samples will be analyzed for VOCs and TPH using EPA Method 8260B and by gas chromatograph/mass spectrometry (GC/MS).

Prior to use, each gas-tight syringe is leak-checked by closing the exit valve and attempting to force ambient air through the Luer fitting. Plastic syringes are not used and should be avoided in collecting samples.

Glass gas-tight syringes and bulbs may be decontaminated by disassembling and heating them. Some components of the syringes and glass bulbs, such as the syringe barrel and bulb stopcock, cannot be heated and should be decontaminated by other methods such as rinsing with methanol and/or expunging with nitrogen or clean air.

Samples received in polymer gas sampling bags (Tedlar® Bags) should not be exposed to light or extreme temperatures. They should be kept in an opaque container (i.e. cooler or black trash bag) until analyzed. Polymer gas sampling bags are not reused.

Passivated stainless steel canisters (SUMMA®s) are cleaned using an automated cleaning station which cycles through evacuating and pressurizing the canister using UHP-grade nitrogen gas (N2). Upon completion of cleaning all Jones canisters are individually certified.

The person who is sampling will record the pressure upon start and completion of the sampling. If the samples are analyzed at a fix-based laboratory, the canisters are returned to the laboratory with a slight vacuum (two to four inches of mercury). These pressure measurements should be included in the laboratory's analytical report as a mechanism to verify the integrity of the sample.

2.5 Other Sample Containers

Glass Jars – A minimum of two 8 oz. jars should be collected without any headspace. Samples must be received chilled and properly labeled with information matching the COC. Glass jars will be used for analyzing metals, hexavalent chromium, SVOCs/PAHs, and dioxins. The glass jars will be used for collection of soil from the excavation test pits.

Stainless Steel/Brass/Acetate Sleeves – Must be received chilled and properly labeled with information matching the COC. A split-spoon sampler lined with six-inch long tubes will be used to collect the soil samples from the boreholes drilled with a hollow-stem auger. Soil samples for analytical testing will be collected from the lead sample tube using the Terra core/EPA 5035 sample kits and contained in four VOA vials and 8 oz. glass jars.

VOAs (Preserved) EPA 5035 – Preservation must be clearly marked on the label of the VOA along with the tarred weight of the VOA before sample was added. A minimum of four (4) VOAs should be collected per sample. Two VOAs should be preserved in Sodium Bisulfate (NaHSO4) and one should be preserved in Methanol (MeOH). These samples must be received chilled and properly labeled with information matching the COC. These samples will be collected using the Terra core/EPA 5035 sampling kits.

Terra Core (Un-preserved) – A minimum of four (4) 5.0-g Terra Core samples must be provided to allow for dilutions if necessary. Must be received chilled and properly labeled with information matching the COC.

3.0 Field Documentation and Record Keeping

Langan field personnel will maintain bound field logbooks to provide a daily record of significant events, observations, and measurements, during activities and sampling. All information pertinent to sampling will be recorded in the logbooks. Information will also be recorded in soil boring, soil gas, and trench logs. All entries will be signed and dated, and must include at minimum the following information;

- Name and title of author, date and time of entry, and weather/environmental conditions during the field activity.
- Location of sampling activity
- Name and title of field crew
- Name and title of site visitors
- Sample media (such as soil)

- Sample collection methods
- Number and volume of samples collected
- Date and time of collection
- Sample identification numbers
- Sample description (such as color, odor) and identification of conditions that might affect the representativeness of a sample (such as refueling operations, etc.)
- Sample distribution (such as which samples went to the laboratory)
- Field observations
- Field equipment serial numbers and calibration results/records
- Field measurements

Data recorded in field logbooks, sample labels, and COC forms will be written legibly and with waterproof, black, indelible ink. None of these accountable documents are to be destroyed or thrown away, even if illegible or containing inaccuracies. If an error is made on an accountable document assigned to an individual, that individual should make all the corrections by crossing a line through the error, initialing and dating the correction, and entering the correct information. The erroneous information will not be obliterated. Any subsequent error discovered on an accountable document should be corrected by the person who made the entry. All subsequent corrections will be initialed and dated.

Summary of Findings Report

Agua Mansa Commerce Park
Jurupa Valley, Riverside County, California

Prepared For:
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31 August 2018
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TABLE OF CONTENTS

EXECUTIVE SUMMARY 3
1.0 INTRODUCTION 6
1.1 OBJECTIVES 6
2.0 SITE DESCRIPTION 8
2.1 Site Description and Location 8
2.2 Site History 8
3.0 FIELD IMPLEMENTATION ACTIVITIES 11
3.1 Boring Clearance and Geophysical Survey 11
3.2 Summary of Activities 11
3.2.1 Soil Gas Probe Installation 13
3.2.2 Soil Borings 14
3.2.3 SCAQMD Hexavalent Chromium Sampling 15
3.2.4 Deep Excavations 16
3.2.5 Site Specific Background Samples 16
4.0 FIELD INVESTIGATION RESULTS 18
4.1 Soil Gas Sampling and Analytical Results 18
4.2 Soil Analytical Results and Evaluation 19
4.2.1 SCAQMD Analytical Results 20
4.2.2 Site-Specific Background Analytical Results 20
4.2.3 PCBs, SVOCs, and Pesticides and Herbicides 21
4.2.4 Polycyclic Aromatic Hydrocarbons 21
4.2.5 Volatile Organic Compounds 21
4.2.6 Total Petroleum Hydrocarbons 22
4.2.7 Title 22 Metals 25
4.2.8 pH Results 28
5.0 COMPOUNDS ABOVE SCREENING LEVELS 30
6.0 CONCLUSIONS 31
7.0 REFERENCES 34

ATTACHMENTS

Figures

Figure 1 Site Location Map
Figure 2 Site Map with Sampling Locations
Figure 3 Compounds Detected Above Screening Levels

Tables

Table 1 Summary of Field Observations
Table 2 Soil Gas Purge Rates for 26 July 2018 Sampling Event
Table 3 Summary of Soil Gas Analytical Results
Table 4 Summary of SCAQMD Analytical Results
Table 5 Summary of Site-Specific Background Analytical Results
Table 6 Laboratory Analytical Data – Maintenance, Administration, and Packaging
Table 7 Laboratory Analytical Data – Surface, Mining, and Crushing
Table 8 Laboratory Analytical Data – White Cement Plant
Table 9 Laboratory Analytical Data – Grey Cement Plant
Table 10 Laboratory Analytical Data – Material Storage Area
Table 11 Laboratory Analytical Data – Vacant Land
Table 12 Summary of Compounds Above Screening Levels

Appendices

Appendix A Boring Logs
Appendix B Trench Logs
Appendix C Correspondence
Appendix D Laboratory Analytical Reports – Soil Gas
Appendix E Laboratory Analytical Reports - Soil

EXECUTIVE SUMMARY

Langan Engineering and Environmental Services, Inc. (Langan) implemented the California Department of Toxic Substances Control (DTSC) approved Site Assessment Work Plan (SAWP) for the Agua Mansa Commerce Park from 11 July 2018 to 26 July 2018. The investigation included the excavation and soil sampling of twenty (20) composite shallow test pits (SWs), thirty-two (32) deep excavations (i.e. MAP-LT), six (6) soil borings (i.e. MAP-SB), installation of eleven dual-nested soil gas probes (i.e., MAP-SG), and collection of soil gas samples. The locations of the sampling activities are shown on Figure 2. A total of 144 soil samples were collected. The soil samples were collected from the trenches and soil boring for the one or more of the following analysis: TPH, VOCs, SVOCs, PAHs, Title 22 Metals, PCBs, Dioxins, and Cr^{VI}.

Soil gas samples collected from the eleven (11) soil gas locations were analyzed for VOCs and TPH following EPA Method 8260B using an on-site mobile laboratory. The results indicated that VOCs and TPH were not detected above their respective reporting limits. Therefore, no further soil gas investigation is recommended.

The following constituents were not reported above their respective reporting limits in the soil samples analyzed: PCBs, Pesticides and herbicides, VOCs and SVOCs. PAHs were reported in three samples of the forty-eight (48) analyzed above their respective detection limit; however, there is not a corresponding DTSC soil commercial/industrial screening level (SL) for these compounds. The PAH compounds detected included 2-methylanphthalene, anthracene, phenanthrene, pyrene, chrysene, and fluoranthene. The highest concentration of these compounds (phenanthrene) was reported in sample MAP-LT-2-10 at 31 micrograms per kilogram (µg/kg). Dioxins were reported below the residential SL of 50 ppt in sixty-eight (68) samples analyzed at the Site. A total of eighty-seven (87) soil samples were analyzed for TPH. The maximum TPH concentration reported was 524.5 milligrams per kilogram (mg/kg) within the motor oil range (C_{23} – C_{40}) in the Material Storage Area at SW-15-1. No further assessment is recommended for these compounds.

Based on the results of the investigation, the following conclusions are provided:

- Arsenic was reported above the DTSC SL site-wide (114 samples) and above the published upper bound regional background concentrations of 10 mg/kg (29 samples). Published literature indicates that Arsenic is a metal commonly measured in soils throughout California. The maximum arsenic concentration associated with soils above the regional background was 28.9 mg/kg. Based on the information provide above, no further action is recommended for arsenic.

- The single lead concentration detected above the SL of 320 mg/kg in sample SW-13-5-white (514 mg/kg) was encountered in the Material Storage Area in a white clay material, which was a feed product in the cement manufacturing process. The other 170 samples analyzed for lead were below the SL of 320 mg/kg. Based on this information, no further action is recommended for lead.

- Cr^{VI} was reported above the Environmental Protection Agency (EPA) commercial/industrial Regional Screening Level (RSL) of 6.3 mg/kg in only three samples (GCP-LT-9-10, SMC-SB-1-5, and SMC-SB-1-10). Sample GCP-LT-9-10 is located in a berm east of the Grey Kilns and former baghouses where previous Cement Kiln Dust (CKD) material was placed during the cement plant operations (Table 12 and Figure 3). Samples SMC-SB-1-5 and SMC-SB-1-10 are located in the Wet Weather Quarry area where non-specification cement product was deposited during the cement plant operations (Table 12 and Figure 3). Based on this information, no further action is recommended for Cr^{VI}.

- At the request of DTSC in a meeting on 2 July 2018, a synthetic precipitation leaching procedure (SPLP) test was performed on two samples, SMC-SB-1-5 (9.24 mg/kg) and SMC-SB-1-30 (5.32 mg/kg), to evaluate the potential leachability of Cr^{VI} into the groundwater. The results of the SPLP test reported concentrations of 28.5 micrograms per liter (µg/L) and 34.4 µg/L in SMC-SB-1-5 and SMC-SB-1-30, respectively (Figure 2 and Table 7). A Maximum Contaminant Level (MCL) does not exist in California for Cr^{VI}; however, the above values are less than the total chrome MCL of 50 µg/L.

The lead and Cr^{VI} concentrations that exceed their respective SLs appear to be associated primarily with former cement feed product (i.e. white clay and/or CKD), and appear to be localized within the Material Storage Area, Gray Cement Plant, and in the vicinity of the Wet Weather Quarry.

The areas that encountered refusal during the proposed SAWP trench sampling activities are located in the Maintenance, Administration, and Packaging and Grey Cement Plant study areas. The trenches located in these areas are located where the former original cement plant was demolished prior to the subsequent renovations and construction of the present day cement plant. In addition, the area of the former Sag Pond (Figure 2) where TPH concentrations were encountered (LT-9, 1,700 mg/kg and 950 mg/kg at 4 feet and 8 feet, respectively) during Langan's Preliminary Environmental Assessment (PEA) was not accessible during this assessment due to the debris prohibiting access. These areas will need to be addressed during the demolition phase of the project along with the areas underlying the existing buildings/structures as outlined in the DSTC approved SAWP. These areas will be addressed in the Response Plan, which will include a Demolition and Soils Management Plan that will be submitted and approved by DTSC prior to implementation.

1.0 INTRODUCTION

Langan Engineering and Environmental Services, Inc. (Langan) has prepared this Summary of Findings report for the former Riverside Cement Plant (RCP) (hereinafter referred to as the "Site"), located at 1500 Rubidoux Boulevard in Jurupa Valley, California (Figure 1). The Site consists of approximately 206 acres in the City of Jurupa Valley, Riverside County, California. The Site is under nine (9) separate California Land Reuse and Revitalization Act (CLRRA) agreements with the Department of Toxic Substances Control (DTSC) for the proposed redevelopment project. The CLRRA agreements were executed on 16 January, 2018. The purpose of the Summary of Findings Report is to document the field implementation and results of the additional soil and soil gas sampling activities completed as part of the DTSC approved Site Assessment Work Plan (SAWP) dated 10 July 2018.

The proposed development for the Site consists of the construction of six (6) warehouse distribution structures with associated utilities and parking. As part of the redevelopment program, the onsite structures will be decommissioned, decontaminated and demolished, and mass grading activities will be performed to construct building pads for the proposed structures. The mass grading project for the Site includes a balanced cut and fill with a total grading estimated at between one and two million cubic yards (yd^3). After demolition and grading operations are completed, the Site will be covered by the proposed development which includes concrete tilt-up structures, paved circulation and parking and landscaped areas.

1.1 OBJECTIVES

The purpose of this Summary of Findings Report is to obtain additional field and analytical information to meet the data quality objectives (DQOs) defined in the SAWP for the future Site development project. The supplemental site assessment and data collection activities provided additional data within the six study areas identified in Langan's Preliminary Environmental Assessment (PEA), dated 20 December 2018. Certain areas of the supplemental site assessment were deferred to the decontamination and demolition and the soil management phases due to accessibility issues. These areas were identified in the SAWP and will be addressed once the onsite buildings and structures have been removed. The sampling activities preformed also addressed additional data requested in DTSC's review comments of the PEA dated 28 February 2018. The supplemental site assessment activities were conducted in accordance with the DTSC approved SAWP dated 10 July 2018 and subsequent revisions to the SAWP as requested in DTSC's letter dated 19 July 2018.

The four data quality objectives (DQO) for the supplement site assessment are:

- DQO-1: Determine and evaluate potential chemicals of potential concern (COPCs) and the lateral and vertical extents of COPCs in former known or suspected source areas to support a health risk evaluation, as required, and the Response Plan.

- DQO-2: Determine and characterize the onsite soils for reuse as onsite fill or for off-Site disposal

- DQO-3: Identify hexavalent chromium (Cr^{VI}) containing materials that have a potential to generate dusts/emissions especially during grading or demolition activities

- DQO-4: Evaluate potential leaching of metals and hexavalent chromium into groundwater

2.0 SITE DESCRIPTION

2.1 Site Description and Location

The Site is approximately 206 acres located at 1500 Rubidoux Boulevard. The approximate location is shown on Figure 1. The Site includes 13 parcels in Jurupa Valley, California with the Assessor's Parcel Numbers (APNs) listed below:

APN #
175-200-001 (Portion)
175-200-002
175-200-003
175-200-004
175-200-005
175-200-007
175-200-008
175-200-009

APN#
175-170-035
175-170-036
175-170-040
175-170-041 (Portion)
175-180-001

The Site is bound to the west by Union Pacific Railroad (UPRR) tracks and Rubidoux Boulevard, to the north by El Rivino Road, to the south by three inactive quarries and Agua Mansa Road, and to the east by industrial development and Hall Avenue. As shown on Figure 1, the northwestern section of the Site contains undeveloped land and unpaved roads, while the northern section contains undeveloped land and a paved entrance road with a guard shack.

The western section encompasses an entrance road, along with storage silos, a warehouse (Pack House), part of the former white cement manufacturing plant, and one to two-story administration buildings (Truck Garage, Transportation Office, Storehouse, and Garage). The eastern section contains the raw materials storage area and the remnants of the Grey Cement Plant (primarily the support structures for the rotary kilns).

2.2 Site History

The Site was in operation from the early 1900s until 2014. Operations on Site were divided into either the cement manufacturing operations or the Crestmore mine where mining of limestone and quarrying activities were conducted. In addition, the Site included various support facilities, heavy machinery, and administrative buildings that were related to the cement manufacturing plant and limestone quarrying and mining operations.

The facility underwent three major redevelopment phases over the life of its operation. From the early 1900s to the 1950s, the cement plant was located in the south western portion of the Site just north of the present day White Cement Plant. The facility at that time was operated using petroleum-based fuels (i.e. Bunker C) stored in fuel tanks. As the cement manufacturing process evolved through the use of updated technology and other changes in the industry, the facility went through an expansion and redevelopment phase from the late 1950's through early 1960's, which included conveyor belt systems and compressed air, development of raw material storage areas, and upgrades to processing of raw materials to manufacture cement product. During the second renovation phase, the facility was operated using both coal and petroleum-based fuels. By the 1960's, the original plant had been demolished and the present day facility was constructed that generated both grey and white cement product. The current facility was operated until it was shutdown in 2014.

Cement manufacturing operations began in 1914 and continued through 2008. The limestone obtained from the onsite quarries/mines was mixed with raw sand and clay materials imported from off-Site sources, and heated in rotary kilns to manufacture cement clinker. The raw materials were stored in onsite silos prior to 1960s until the Raw Material Storage Area (RMSA), located along the northwestern portion of the Site, was developed at which point the materials were staged there. The cement clinker was then crushed to create two primary types of cement (i.e., White and Grey Cement), which was then packaged and shipped offsite. Cement Kiln Dust (CKD) was one of the primary by-products generated during the manufacturing process. The CKD can often be identified by its slight pinkish hue. When hydrated, CKD becomes dense and relatively impermeable to water, but does not form a cemented mass.

Prior to the 1970s, CKD was hauled from the kilns using end-dump trucks and reportedly placed with fill soils/mine spoils at several locations throughout the Site (Figure 1). The placement of CKD material primarily occurred from 1955 to 1979, and the primary location was the Wet Weather Quarry. Due to the advancement in the cement manufacturing process during the 1970's, previously discarded CKD material was reclaimed and used as feedstock in the cement making process. Also during the 1950s and early 1960s, the cement manufacturing process developed a closed-loop system with the incorporation of bag houses to capture CKD and other particulate materials generated during the cement manufacturing process. The CKD material was reclaimed beginning in the early 1970s until the operations were shutdown in 2014.

The equipment used to manufacture cement generally relied on electrical power for material conveyance/process control, and petroleum fuels for heating at various times over the life of the facility. Petroleum fuels were historically provided by a 6,000,000 gallon tank storing Bunker C fuel oil. Other underground storage tanks (USTs) at the Site were used to store petroleum products such as gasoline, diesel fuel, fuel oil, and waste oil.

3.0 FIELD IMPLEMENTATION ACTIVITIES

3.1 Boring Clearance and Geophysical Survey

On 6 July 2018, Langan contacted DigAlert prior to the subsurface investigation activities conducted at the Site. In addition, Langan's subcontractor, Pacific Coast Locators (PCL), conducted a geophysical survey on the Site to clear utilities in and around the proposed and marked investigation trench and boring locations.

3.2 Summary of Activities

Field activities were conducted from 11 July 2018 to 23 July 2018 in accordance with the DTSC approved SAWP, dated 10 July 2018 with revisions noted below. The investigation included the excavation and soil sampling of twenty (20) composite shallow test pits (SWs), thirty-two (32) deep excavations (i.e. MAP-LT), seven (7) soil borings (i.e. MAP-SB), installation of eleven dual-nested soil gas probes (i.e., MAP-SG), and collection of soil gas samples. The locations of the sampling activities are shown on Figure 2. Table 1 provides a summary of the field observations. The logs of the soil borings and trenches are presented in Appendices A and B, respectively.

Langan's SAWP was revised based on DTSC's letter dated 19 July 2018. The additions to the SAWP requested by the DTSC are summarized below:

1. Wet Weather Quarry Area (WWQ)
    - Soil boring, SMC-SB-3, added based on field evaluation by DTSC geologist
    - Drilling depths for soil borings, SMC-SB-1 through SMC-SB-3, to extend to top of native layer/bedrock, likely 100 feet (ft.) instead of 20 ft. as shown in Table 27
    - Soil samples collected from four (4) depths and analyzed for TPH, SVOCs, PAHs, and PCBs, with half to be analyzed for Dioxins
    - Samples analyzed for Cr^{VI} and total metals collected at 1, 5, and 10 feet below ground surface (bgs) as indicated in Table 27
2. White Cement Plant Area (WCP)
    - Soil gas probe, WCP-SG-3, added near the location of WCP-SB-1 in the White Cement Plant area, to evaluate the potential impact from the former 210,000-gallon aboveground storage tank (AST).
    - The soil samples from 5 feet and 15 feet analyzed for TPH and VOCs, and the soil boring at WCP-SB-1 will no longer be performed.

3. Former 6,000,000-gallon tank area
    - The location of soil boring, MAP-SB-3, relocated near the former sampling location VB-1, where elevated TPH was identified during previous investigations by others (ERM West, 1987).
    - Analyze samples from MAP-SB-2 for TPH at depths of 10, 30, and 50 feet below ground surface (bgs), to be consistent with other analytes at the other two locations.
4. Material Storage Area (MSA)
    - Analyze samples from MSA-LT-2 and MSA-LT-4 for TPH at sample depths of 5, 10, and 15 feet bgs.
5. Trench location GCP-LT-2 in Grey Cement Plant area moved to the south of the grey kiln line
6. Trench, SMC-LT-1, moved to the black iron ore location.
7. Soil samples at the bottom of each trench (i.e., 20 feet bgs) to be archived for possible analytical needs

One of the seven (7) proposed soil borings, WCP-SB-1, was not drilled after the additional soil gas probe (WCP-SG-3) noted above was installed in the same area at the request of DTSC. This modification was verbally approved by DTSC and documented in an email dated 16 July 2018 (Appendix C). The locations of the trenches, soil borings, and nested soil gas probes are shown on Figure 2.

Areas Not Investigated/Completed

Several areas were not investigated as presented in the DTSC approved SAWP due to field accessibility and refusal conditions. Evaluation of these areas was unsuccessful due to either hard ground conditions and/or obstructions that prohibited excavation in these areas. The areas that could not be investigated are listed below and shown on Figure 2. Table 1 provides a description of the field observations encountered in each of these areas.

- MAP-LT-4, MAP-LT-5, and MAP-LT-6 (Maintenance, Administration, and Packaging)
- SW-18 (Maintenance, Administration, and Packaging)
- SW-17 (south of center point, Grey Cement Plant)
- SMC-LT-2 (Surface, Mining, and Crushing)

MAP-LT-4, MAP-LT-5, and MAP-LT-6 are located in the area of the original cement plant that was constructed prior to the 1920s. Ground conditions were extremely dense in these areas and possible former concrete foundations were encountered in the area of MAP-LT-4. As discussed in the approved SAWP, these types of areas as well as inaccessible areas due to structures will be evaluated during the decontamination and demolition phase of the project. The six areas listed above were appropriately marked so they can be accurately located during the demolition phase of the project.

3.2.1 Soil Gas Probe Installation

A total of eleven (11) borings were drilled and converted to dual-nested soil gas probes that were completed at 5 feet and 15 feet bgs in a single borehole (Figure 2). The soil gas probe locations include: WCP-SG-1, WCP-SG-2, WCP-SG-3, GCP-SG-1, MAP-SG-1, MAP-SG-2, MAP-SG-3, MAP-SG-4, MAP-SG-5, MAP-SG-6, and MAP-SG-7.

The drilling was completed using a CME-95 hollow-stem auger (HSA) drill rig equipped with 8-inch outside diameter augers. The soil borings and soil gas probe installations were observed by a Langan professional geologist. The soil encountered was logged in accordance with the Unified Soil Classification System (USCS).

The soil gas probes were constructed of ¼-inch Teflon tubing. At the bottom of each tube, a 6-inch long stainless steel screen was connected. The annular space around the stainless steel screen was filled with No. 3 sand to approximately one foot above the screen. An approximate one foot thick granular bentonite seal was placed on top of the sand. The 6-inch screen was set at the approximate midpoint of the sand filter pack. Hydrated bentonite chips then filled the remaining borehole annular space to near the base of the shallower 5 foot bgs soil gas probe. An approximate 6-inch layer of No. 3 sand was placed on top of the bentonite and then the 5 foot soil gas probe was installed and completed similar to the 15 foot bgs soil gas probe. The hydrated bentonite serves as a seal around the sample collection tubing to reduce the potential for ambient air intrusion into the soil gas sample. A closed valve was installed at the end of each sample collection tube at the surface. The soil gas probes were completed at the surface with an 8-inch Emco-Weaton Traffic Rated flush-mount box set at grade level. The soil cuttings were placed in 55-gallon drums that were labeled and sealed for subsequent handling based on analytical data.

Soil samples were collected at 5 foot bgs and 15 foot bgs and placed on hold at the laboratory pending soil gas results.

3.2.2 Soil Borings

A total of six (6) soil borings (refer to Section 3.2 Summary of Activities) were drilled and sampled at the Site using a CME-95 HSA. Three soil borings were drilled and sampled in the Surface, Mining, and Crushing area to attempt to determine the potential depth of fill materials above the groundwater table. The target depth for the three borings (SMC-SB-1, 2, and 3) was 100 feet bgs based on the approximate groundwater depth at the Site. Refusal was encountered and the borings were terminated at 33 feet, 45 feet, and 40 feet bgs, respectively.

Two borings were drilled and sampled in the Maintenance, Administration, and Packaging area (MAP-SB-2 and MAP-SB-3). These borings were drilled to 50 feet bgs to assess potential residual soil impacts from the former 6-million gallon Bunker C fuel oil tank, which was previously remediated by others through excavation of the impacted soils to an approximate depth of 40 feet bgs (ERM West, 1987).

A soil boring, MAP-SB-1, was drilled and sampled near a former 550-gallon waste oil tank that had previously been removed in the late 1990s by others (Cal Tank Testing, 1988b). The soil boring was drilled to a depth of 20 feet bgs to assess residual soil conditions from the prior UST removal action.

Upon completion, the boreholes were backfilled with the soil cuttings.

During the drilling, split spoon sampling was conducted at five foot intervals to the termination depth of the each boring. The samples were screened in the field with a photoionization detector (PID) calibrated to isobutylene. Soil samples were collected using an 18-inch long California modified split-spoon sampler lined with brass tubes that was driven into the subsurface with a 140-pound hammer. The blow counts per six-inch interval as well as the PID readings were recorded on the field boring logs. The split spoon sampler was decontaminated using tri-sodium phosphate and then rinsed with deionized water. The augers were steam cleaned between soil borings.

Disposable 5.0 gram Terra Core sample kits with four (4) volatile organic analysis (VOA) vials were used to collect soil from the bottom 6-inch brass tube from the split-spoon sampling device. The collected soil was transferred into a glass VOA vial containing preservative (two

VOAs contained sodium bisulfate and one VOA contained methanol), sealed, and labeled with a unique designation corresponding to the boring identification and sample depth. A total of four (4) VOA vials were collected at each sample interval. The remaining soil in the bottom 6-inches was contained in eight ounce (8 oz.) glass jars, sealed, and labeled similar to the VOA vials. The drilling equipment and split-spoon sampling device that came into contact with soils were decontaminated using the three bucket rinse process. The samples were recorded on a chain-of-custody and placed in an ice chest with ice for pick up by the analytical laboratory at the Site. Analytical testing was conducted by Performance Analytical Laboratories, Inc. (PAL).

Soil samples collected from borings SMC-SB-1, 2, and 3 were analyzed for total petroleum hydrocarbons (TPH, carbon chain), hexavalent chromium (Cr^{VI}), Title 22 metals, semi-volatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAH), dioxins, and polychlorinated biphenyls (PCB). Soil samples from SMC-SB-1-5 and SMC-SB-1-30 were also analyzed for the synthetic precipitation leaching procedure (SPLP). Soil samples from MAP-SB-1 were analyzed TPH and VOCs. Soil samples from MAP-SB-2 and MAP-SB-3 were analyzed for TPH, metals, VOCs, and SVOCs.

3.2.3 SCAQMD Hexavalent Chromium Sampling

A total of twenty (20) composite shallow test pits (SWs) were completed relative to the SCAQMD Title V permit closure requirements and to evaluate Cr^{VI} in shallow soils that may come into contact with workers during future demolition and mass grading activities (DQO-3). The twenty (20) composite SWs were completed using a CASE 430 Backhoe, operated by Langan's subcontractor, American Integrated Services, Inc. (AIS). Shallow test pit SW-16, located in the Grey Cement Plant area, was completed using a CASE CX-290 excavator due to a steep slope that was not accessible by the backhoe. Each test pit location consisted of one center location and four step-out locations spread radially approximately 100 feet north, south, east, and west of the center location to collect analytical data as part of DQO-3. At the request of DTSC, the samples collected from the locations in the Material Storage Area (SW-8, SW-9, SW-10, SW-13, SW-14, and SW-15) were collected in a linear pattern (i.e. north-south) to provide coverage for the specific bay (see Figure 2).

A total of five test pits were excavated per Material Storage Area bay. At each location, a pit was excavated to a depth of five (5) feet bgs with samples collected at 1 foot and 5 feet bgs. The samples at 1 foot bgs from the five (5) test pits within each bay were composited into one sample for chemical analysis. The samples at 5 feet bgs from the five (5) test pits within each

bay were also composited into one sample for chemical analysis.

The composite samples were created by placing the soils from each depth interval per location into a stainless steel bowl and mixing with a stainless steel trowel until the soil was homogenized. The samples were recorded on a chain-of-custody and placed in an ice chest with ice for pick up by PAL. Each test pit location was backfilled with the excavated material. The samples for the SCAQMD sampling plan (SW-1 to SW-20) were analyzed for Cr^{VI} and Title 22 metals. At the request of DTSC, certain locations were designated as site-wide samples (Figure 2) and therefore were also analyzed for TPH-carbon chain and PCBs.

The sampling equipment was decontaminated prior to use at each location using a wire-brush to remove soil and then cleaned with tri-sodium phosphate (TSP) followed by thorough rinsing with deionized water.

3.2.4 Deep Excavations

Trenching for the SAWP test pits throughout the Site was conducted based on the approved SAWP using a CASE CX-290 Excavator. In general, trenches were excavated to approximately 20 feet bgs, with the exception of trenches that collapsed or encountered refusal before 20 feet (see Table 1). The samples collected from the trenches were analyzed for Cr^{VI} and Title 22 metals. Additional chemical analysis included: TPH, PCBs, SVOCs, VOCs, PAHs, and dioxins. Soils were screened with a PID and then collected in laboratory-provided, 8-oz. sample glass jars. Soils collected for pH purposes were collected in one-gallon freezer plastic bags with a hand trowel. Soils samples analyzed for VOCs were collected with Encore sampling kits from the excavator bucket. The soil samples were stored on ice in a cooler for picked up by PAL. The trenches were backfilled with the excavated trench material.

The hand trowel used to collect soils samples was decontaminated prior to use at each investigation location using a wire-brush to remove soil and debris from the trowel and then cleaned with TSP followed by rinsing with deionized water.

3.2.5 Site Specific Background Samples

At the request of DTSC, locations in the Vacant Land study area were selected to represent site specific background conditions based on the limited historical operation in that portion of the Site. These locations include SW-4, SW-5, SW-6, VL-LT-2, and VL-LT-3. The sampling scheme for these shallow test pits was the same as previously described in the paragraph above for the

deep excavations.

In addition, five (5) shallow composite samples were collected at 6-inches bgs to evaluate potential near surface impacts. Test pits VL-LT-2 and VL-LT-3 were analyzed for Cr^{VI}, Title 22 metals, and dioxins at 1 foot and 5 feet bgs. Samples from test pit SW-4 were analyzed for Cr^{VI} and Title 22 metals at 1 foot and 5 feet bgs. Samples from test pits SW-5 and SW-6 were analyzed for Cr^{VI}, Title 22 metals, TPH, dioxins, and PCBs.

The locations of the background samples are shown on Figure 2. The hand trowel used to collect soils samples was decontaminated prior to use at each investigation location using a wire-brush to remove soil and debris from the trowel and then cleaned with TSP followed by rinsing with deionized water.

4.0 FIELD INVESTIGATION RESULTS

The results of the field investigation are summarized below.

4.1 Soil Gas Sampling and Analytical Results

Langan's subcontractor, Jones Environmental Inc. (JEI), conducted two rounds of soil gas sampling on 16 July 2018 and 26 July 2018 with oversight from Langan and DTSC personnel. Using an onsite mobile laboratory, a JEI technician purged, collected, and analyzed soil gas samples from the 11 soil gas boring: WCP-SG-1, WCP-SG-2, WCP-SG-3, GCP-SG-1, MAP-SG-1, MAP-SG-2, MAP-SG-3, MAP-SG-4, MAP-SG-5, MAP-SG-6, and MAP-SG-7. The locations of the soil gas probes are shown on Figure 2. The purging, sampling, and quality assurance/quality control (QA/QC) protocols were pursuant to JEI's Standard Operating Procedures Mobile Lab 8260B dated January 2016, version 13 and the Active Soil Gas Investigation (ASGI) released in July 2015 by the DTSC presented in the approved SAWP.

During the 16 July 2018 event, the soil gas probes were purged at a rate of approximately 2,000 cubic centimeters per minute (cc/min) with a sampling rate of approximately 200 cc/min. The purge rate of 2,000 cc/min was chosen due to the larger than normal borehole (8-inches) and increased purge volume required to adequately purge the air column within the borehole prior to collection of the soil gas sample. In accordance with the 2015 DTSC/RWQCB active soil gas investigations advisory document, increased purge volumes are acceptable in the case of larger than typical boreholes and/or deeper completion depths than what is typical for soil gas assessments.

At the direction of Mr. Chris Guerre and Mr. Jose Marcos of DTSC, the purge rate was adjusted prior to sampling the soil gas probes for the 26 July 2018 sampling event. Two sets of pumps were used to accommodate two flow rates that included purging some of the soil gas probes at 200 cc/min and the remaining at 500 cc/min prior to soil gas sample collection. The DTSC directed the purge rate for each soil gas probe. Following purging, the soil gas probes were allowed to stabilize prior to sample collection. The soil gas samples from the probes were collected using a 200 cc/min flow rate in accordance with EPA Method 8260B and EPA SW-846 Method 5030 and 5035 for sample collection and then analyzed for VOCs and TPH by gas chromatography/mass spectrometry (GC/MS). A summary of the purge rates for the 26 July 2018 sampling event are presented in Table 2.

The soil gas samples were analyzed in JEI's mobile laboratory using EPA Method 8260B for VOCs and TPH. A laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) were analyzed with each batch of soil gas samples for a total of four (4) control samples. A replicate sample was analyzed for each sampling event. A summary of the analytical results is presented in Table 3.

The analytical results indicate that VOCs and TPH were not detected above their respective reporting limits in the soil gas samples for 16 July and 23 July 2018 sampling events. The analytical reports are presented in Appendix D.

4.2 Soil Analytical Results and Evaluation

The analytical results for SCAQMD sampling and each study area are summarized below and are presented in Tables 4 through 12. The laboratory reports for the soils are presented in Appendix E. Below is a list of the compounds that were analyzed for in accordance with the DTSC approved SAWP for samples collected at the former Riverside Cement Plant.

- Volatile Organic Compounds (VOCs)
- Semi-Volatile Organic Compounds (SVOCs)
- Total Petroleum Hydrocarbons (TPH)
- Title 22 Metals
- Hexavalent Chromium (Cr^{VI})
- Polychlorinated Biphenyl (PCBs)
- Dioxins
- Polycyclic Aromatic Hydrocarbons (PAHs)

Soil samples were analyzed for certain analytes from the list above based on historical operational area (i.e. Study Area) and feature information and potential chemicals that may have been used at that particular study area and/or feature. A subset of sample locations were designated as site-wide samples to address DOQ-2, which were analyzed for the site-wide COCs that included Title 22 metals, Cr^{VI}, TPH, and PCBs. The sample locations were selected to provide site-wide spatial coverage as shown on Figure 2. The analytical results were compared to the DTSC screening levels (SL) for commercial/industrial soils, dated June 2018. The analytical results for Cr^{VI} were compared to the Environmental Protection Agency (EPA) commercial/industrial Regional Screening Level (RSL) of 6.3 mg/kg, dated May 2018.

4.2.1 SCAQMD Analytical Results

Twenty (20) SWs were conducted for the SCAQMD closure requirements to evaluate the near surface soils for dust generation during future demolition and grading operations (DQO-3). The results of the analytical testing are presented in Table 4 and the laboratory reports are presented in Appendix D.

None of the samples analyzed for Cr^{VI} exceeded the RSL of 6.3 mg/kg. Arsenic exceeded the SL of 4.2 mg/kg in twenty-two samples with a range from 4.25 mg/kg to 68.1 mg/kg. The highest concentration of 68.1 mg/kg was reported in a sample collected of white clay in the Material Storage Area (SW-3-5-white) which was used as feed product for the former cement manufacturing process. This sample is not representative of the soils within the Material Storage Area and is clearly identifiable at the Site.

None of the other metals analyzed exceeded their respective SLs.

4.2.2 Site-Specific Background Analytical Results

The DTSC suggested site-specific background samples were collected from five (5) test pit locations (SW-4, SW-5, SW-6, VL-LT-2 and VL-LT-3) in the Vacant Land area. These locations were selected as a result of limited historical cement plant operations. The results of the site-specific background samples are summarized in Table 5. The samples collected from VL-LT-2 and VL-LT-3 were composited and analyzed for Cr^{VI}, Title 22 metals, and dioxins at 1 foot, 5 feet, and 10 feet bgs. Samples from SW-4 and SW-6 were analyzed for Cr^{VI} and Title 22 metals and samples from SW-5 were analyzed for Cr^{VI}, Title 22 metals, TPH, PCBs, and dioxins at 1 foot and 5 feet bgs. In addition, shallow surficial samples (6-inches) were composited from these five locations. The 6-inch samples were analyzed for Title 22 metals, Cr^{VI}, and dioxins, except the sample from SW-5 which was also analyzed for PCBs.

The results indicated that arsenic was above the SL of 4.2 mg/kg in two samples (SW-5-6-inches and SW-5-5, 5.18 mg/kg and 5.6 mg/kg, respectively), two samples (VL-LT-2-1 and VL-LT-2-5, 4.81 mg/kg and 4.35 mg/kg, respectively) and three samples (VL-LT-3-6 inches, VL-LT-3-1, and VL-LT-3-5, 4.94 mg/kg, 8.94 mg/kg, 8.66 mg/kg, respectively). The other compounds analyzed from these locations were either below reporting limits or below their respective SLs and RSLs. Dioxins were either below reporting limits or below the residential SL of 50 parts

per trillion (ppt), which is the residential screening level published in DTSC's Human Health Risk Assessment (HHRA) Note No. 2 dated April 2017.

4.2.3 PCBs, SVOCs, and Pesticides and Herbicides

A total of fifty-seven (57) samples were analyzed for PCBs, two (2) samples were analyzed for pesticides and herbicides, and forty-six (46) samples were analyzed for SVOCs. The following constituents were not reported above their respective reporting limits: PCBs, pesticides and herbicides, and SVOCs.

4.2.4 Polycyclic Aromatic Hydrocarbons

A total of forty-eight (48) samples were analyzed for PAHs. PAHs were detected in three samples (MAP-LT-2-10, SMC-SB-1-5, and SMC-SB-3-20). In MAP-LT-2-10, 2-methylnaphthalene was reported at a concentration of 15 µg/kg, benz (a) anthracene at a concentration of 13 µg/kg, phenanthrene at a concentration of 31 µg/kg, and pyrene at a concentration of 24 µg/kg. In SMC-SB-1-5, phenanthrene was reported at a concentration of 12 µg/kg. In SMC-SB-3-20, chrysene was reported at a concentration of 11 µg/kg, fluoranthene at a concentration of 12 µg/kg, phenacnthrene at a concentration of 17 µg/kg, and pyrene at 12 µg/kg. None of these compounds have DTSC commercial/industrial screening levels for soils.

4.2.5 Volatile Organic Compounds

Soil samples in the Surface, Mining, and Crushing, Grey Cement Plant, White Cement Plant, Material Storage Area, and Vacant Land study areas were not analyzed for VOCs due to no known historical solvent use and/or other sources of potential COCs in these study areas/operational areas. In addition, the Vacant Land area has never been developed or used for any operational activities associated with the former Riverside Cement Plant.

Maintenance, Administration, and Packaging

Soil samples analyzed for VOCs were collected within the Maintenance, Administration, and Packaging area from the following locations and associated features:

- MAP-SG-3-5' (former 10,000 gallon diesel UST)
- MAP-SG-3-15'(former 10,000 gallon diesel UST)

- MAP-SB-3-10' (former 6,000,000 gallon Bunker C Fuel Oil UST)
- MAP-SB-3-30' (former 6,000,000 gallon Bunker C Fuel Oil UST)
- MAP-SB-3-50' (former 6,000,000 gallon Bunker C Fuel Oil UST)
- MAP-SB-2-10' (former 6,000,000 gallon Bunker C Fuel Oil UST)
- MAP-SB-2-30' (former 6,000,000 gallon Bunker C Fuel Oil UST)
- MAP-SB-2-50' (former 6,000,000 gallon Bunker C Fuel Oil UST)
- MAP-SB-1-20' (former 550 gallon waste oil UST)
- MAP-LT-3-1' (wash rack discharge point)
- MAP-LT-3-5' (wash rack discharge point)
- MAP-LT-3-10' (wash rack discharge point)
- MAP-LT-3-20' (wash rack discharge point)

VOCs were not detected above their respective reporting limits in the samples analyzed from these locations with the exception of acetone. Acetone was reported in only one sample at a concentration of 120 microgram per kilogram (µg/kg) at 10 feet in MAP-SB-2-10', which is located in the former 6,000,000 Gallon Bunker C Fuel Oil UST area. Acetone is not an expected contaminant of concern in this area and is known to be a common laboratory contaminant. The sample locations are shown on Figure 3 and the results are summarized in Table 6.

4.2.6 Total Petroleum Hydrocarbons

Surface, Mining, Crushing Area

Three samples located in the Wet Weather Quarry and northwest of the Wet Weather Quarry area were analyzed for TPH. The sample locations and associated features are as follows:

- SW-19-1 and 5 (northwest of Surface, Mining, and Crushing)
- SMC-SB-1 (Wet Weather Quarry),

TPH concentrations ranged from non-detect (< 2.48 mg/kg) to 89.99 mg/kg (SW-19-5', C_{21}-C_{40}) in the area northwest of the Wet Weather Quarry, which is within the diesel to motor oil range (Figure 2). Based on this data, no further investigation regarding the extent of TPH is considered necessary in this area. The sample locations are shown on Figure 3 and the results are summarized in Table 7.

White Cement Plant

Twelve samples from the White Cement Plant were analyzed for TPH. The sample locations and associated features are as follows:

- WCP-LT-1-5,10, and 15 (Kiln area)
- WCP-LT-2-5, 10, and 15 (Kiln area)
- WCP-LT-3-5, 10, and 15 (Kiln area)
- WCP-LT-4-5, 10, and 15 (Kiln area)

TPH concentrations ranged from non-detect (< 2.48 mg/kg) to 92 mg/kg (WCP-LT-1-5', C_{28}-C_{40}), which is within the diesel to motor oil range (Figure 2). Based on this data, no further investigation regarding the extent of TPH is considered necessary in this area. The sample locations are shown on Figure 3 and the results are summarized in Table 8.

Grey Cement Plant

Eighteen samples were collected in the Grey Cement Plant area and were analyzed for TPH. The sample locations and associated features are as follows:

- SW-16-1 and 5 (former 10,000 gallon diesel UST)
- SW-17-1 and 5 (former 10,000 gallon diesel UST)
- GCP-LT-2-5 and 10 (former Grey Kilns, 1 and 2)
- GCP-LT-4-5, 10, and 15 (former Baghouses)
- GCP-LT-7-5, 10, and 15 (north, east, and south berms)
- GCP-LT-10-5, 10, and 15 (north, east, and south berms)
- GCP-LT-11-5, 10, and 15 (north, east, and south berms)

The TPH concentrations in samples from these locations ranged from non-detect (< 2.48 mg/kg) to 144.18 mg/kg (SW-17-1' C_{23}-C_{40}), which is within the diesel to motor oil range. Based on this data, no further investigation regarding the extent of TPH is considered necessary in this area. The sample locations are shown on Figure 3 and the results are summarized in Table 9.

Material Storage Area

Nineteen samples were collected from the Material Storage Bays and berm areas and were analyzed for TPH. The sample locations and associated features are as follows:

- SW-9-1 and 5 (raw material storage bay)
- SW-10-1, 5, 5 white (raw material storage bay)
- SW-15-1-brn (clinker storage bay)
- SW-15-1 and 5 (clinker storage bay)
- SW-15-5-white (clinker storage bay
- MSA-LT-2, 10, and 15 (eastern berm)
- MSA-LT-4-5, 10, and 15 (eastern berm)
- MSA-LT-5-1, 5, 10, and 15 (clinker storage bay)

TPH concentrations ranged from non-detect (< 2.48 mg/kg) to 524.5 mg/kg (SW-15-1' C_{25}-C_{40}), which is within the diesel and motor oil range. Based on this data, no further investigation regarding the extent of TPH is considered necessary in this area. The sample locations are shown on Figure 3 and the results are summarized in Table 10.

Maintenance, Administration, and Packaging

Thirty samples were collected from areas of the Former Agriculture Division, East of Former Fleet Truck Parking and the Former Fleet Truck Parking , 6,000,000 gallon Bunker C Fuel Oil UST, former 1,000 gallon Diesel UST, and Washrack Discharge Point (Figure 2). The sample locations and associated features are as follows:

- SW-3-1 and 5 (former Agriculture Division)
- SW-11-1 and 5 (former east Fleet Truck Parking)
- SW-12-1 and 5 (former 6M gallon Bunker C Fuel Oil UST)
- SW-20-1 and 5 (former Material Yard)
- MAP-SB-1-15 (former 550 gallon Waste Oil UST)
- MAP-SG-3-5 and 15 (former 1,000 gallon diesel UST)
- MAP-SB-2-10, 30, and 50 (former 6M gallon diesel UST)
- MAP-SB-3-10, 30, and 50 (former 6M gallon Bunker C Fuel Oil UST)
- MAP-LT-1-1, 5, 10, and 15 (former Parking Northwest)
- MAP-LT-2-5, 10, and 15 (former Fleet Truck Parking)
- MAP-LT-3-1, 5, 10, and 15 (Wash rack discharge point)

The TPH concentrations ranged from non-detect (< 2.48 mg/kg) to 266 mg/kg (MAP-SB-2-30, C_{25}-C_{40}), which is within the motor oil range. Based on this data, no further investigation regarding the extent of TPH is considered necessary in this area. The sample locations are shown on Figure 3 and the results are summarized in Table 6.

Vacant Land

Seven samples were collected in the Vacant Land area and analyzed for TPH. The sample locations and associated features are as follows:

- SW-2-1 and 5 (northwest corner of Northern Parcel)
- SW-5-6-inches (Northern Parcel)
- SW-5-1 and 5 (Northern Parcel)
- SW-7-1 and 5 (Northern Berm)

TPH concentrations ranged from non-detect (< 2.48 mg/kg) to 12.15 mg/kg (SW-5-6", C_{28}-C_{40}), which is in the motor oil range (Figure 2). Based on this data, no further investigation regarding the extent of TPH is considered necessary in this area. The sample locations are shown on Figure 3 and the results are summarized in Table 11.

4.2.7 Title 22 Metals

Surface, Mining, Crushing Area

Arsenic was reported above the commercial/industrial RSL of 4.2 mg/kg in twenty (20) samples collected from the Surface, Mining, and Crushing area at concentrations ranging from 3.14 mg/kg (SMC-LT-1-5') to 15.6 mg/kg (SMC-SB-3-10). The SMC sample locations above the arsenic SL are associated with the following features and are shown on Figure 2 and summarized in Table 7.

- South of the Secondary Reduction,
- Wet Weather Quarry
- Northwest of the Wet Weather Quarry

The reported arsenic concentrations are generally higher than the regional arsenic levels as reported by Bradford, 1996 and Chernoff, 2008, which range from 1 mg/kg to 10 mg/kg and the site specific background concentrations that range from 1.0 mg/kg to 8.94 mg/kg.

With the exception of two samples collected from the Wet Weather Quarry, Cr^{VI} was either non-detect (below the laboratory reporting limit, 0.4 mg/kg) or reported below the Cr^{VI} commercial/industrial RSL of 6.3 mg/kg in samples collected from this study area. The two samples that exceeded the RSL were SMC-SB-1-5 and SMC-SB-1-10 at concentrations of 9.24 mg/kg and 8.66 mg/kg, respectively (Figure 2). As requested by DTSC, two of the samples from this boring were analyzed for SPLP to determine the leachability and potential for impacts to the groundwater. The results of the SPLP test reported concentrations of 28.5 micrograms per liter (µg/L) and 34.4 µg/L in SMC-SB-1-5 and SMC-SB-1-30, respectively (Figure 2 and Table 7). A Maximum Contaminant Level (MCL) does not exist in California for Cr^{VI}; however, these concentrations are less than the total chrome MCL of 50 µg/L.

For the three soil borings drilled in the Wet Weather Quarry and Lone Start Quarry areas, Cr^{VI} was either below reporting limits or did not exceed the RSL below 10 feet bgs in the samples analyzed. The results are summarized in Table 7.

White Cement Plant

Metals were not reported above their respective SLs in samples analyzed in the White Cement Plant area with the exception of arsenic. Arsenic was reported in eleven samples, above the RSL (4.2 mg/kg) at concentrations ranging from 5.24 mg/kg (WCP-LT-3-10') to 28.9 mg/kg (WCP-LT-2-5'). The reported concentrations appeared to be limited to the upper 10 feet of soil.

As discussed in the previous paragraph, the reported arsenic concentrations are generally higher than the regional arsenic levels and the site specific background levels. The higher concentrations are likely the result of the former cement plant operations in and around this study area, which included the white kilns that created clinker that was crushed to make the cement product.

Cr^{VI} was not reported above the commercial/industrial RSL of 6.3 mg/kg. The results are summarized in Table 8.

Grey Cement Plant

Eighteen (18) samples in the Grey Cement Plant area were reported above the arsenic SL (4.2 mg/kg). The concentrations ranged from 3.04 mg/kg (SW-16-1') to 11 mg/kg (GCP-LT-6-1') The samples are associated with the features that include former 10,000 gallon diesel UST , east

berm, former Grey Kiln 1 & 2, former Coal Storage, and north/east/south berms. The sample locations are shown on Figure 2 and summarized in Table 9.

Cr^{VI} was reported slightly above the RSL of 6.3 mg/kg in one sample at 8.35 mg/kg in GCP-LT-9-10', which was sampled in the eastern berm (Figure 2).

Material Storage Area

Arsenic was reported in twenty-seven (27) samples above the SL of 4.2 mg/kg. The arsenic concentrations ranged from 3.12 mg/kg (MSA-LT-5-10') to 68.1 mg/kg (SW-13-5-White) and are located in the Material Storage Area and Eastern Berms. Lead was reported at a concentration of 514 mg/kg in one sample (SW-13-5-White), which is above the lead SL of 320 mg/kg. This sample was located on the west side of the Material Storage Area and was associated with a white clay-like material at a depth of approximately 5 feet bgs that was distinguishable from the native soils encountered. This material was used as a feed product as part of the cement manufacturing process. The remaining metals concentrations were reported below their respective SLs (Table 10).

Cr^{VI} was not reported above the RSL of 6.3 mg/kg. The maximum Cr^{VI} concentration was reported at 5.29 mg/kg in sample SW-8-1-other (Table 10).

Maintenance, Administration, and Packaging

Eighteen (18) samples were reported above the arsenic SL (4.2 mg/kg) at concentrations ranging from 3.39 mg/kg (SW-3-1') to 24.2 mg/kg (MAP-SB-3-30') located at the following features/areas: Former Agriculture Division, East of Former Fleet Truck Parking and Former Fleet Truck Parking, Former Material Yard, 6,000,000 Gallon Bunker C Fuel Oil UST, Washrack Discharge Point, and Former Power House (Figure 2). Selenium was reported in one sample, located east of the Former Fleet Truck Parking (SW-11-1'), above the RSL (10 mg/kg) at a concentration of 12 mg/kg at 1 ft. bgs. The results are summarized in Table 6.

Vacant Land

With the exception of arsenic, metals and Cr^{VI} concentrations were either reported below their respective SLs or were not detected above the reporting limit. Arsenic was reported above the SL (4.2 mg/kg) in eighteen samples in this study area. The arsenic concentrations ranged from 3.1 to 18.6 mg/kg in the upper ten feet of soil located at the following features/areas: the

Northern Parcel and northwest of the Northern Parcel, and Northern Berms. The results are summarized in Table 11.

4.2.8 pH Results

Surface, Mining, and Crushing Area

Twenty-one (21) samples in the surface, mining, and crushing area were analyzed for pH. The sample locations are as follows:

- SW-19-1, 5
- SMC-LT-1-1, 5 and 10
- SMC-LT-2-1,5, iron
- SMC-LT-3-1, 5, and 10
- SMC-SB-1-5, 10, and 30
- SMC-SB-2-1, 10, and 30
- SMC-SB-3-10, 20, 30 and 40

The pH levels ranged from 7.57 to 12.5. The average pH of the twenty-one (21) samples is 10.87. The results are summarized in Table 7.

White Cement Plant

Twelve (12) samples in the white cement plant area were analyzed for pH. The sample locations are as follows:

- WCP-LT-1-1, 5, and 10
- WCP-LT-2-1, 5, and 10
- WCP-LT-3-1, 5, and 10
- WCP-LT-4-1, 5, and 10

The pH levels ranged from 8.34 and 11. The average pH of the twelve (12) samples is 9.44. The results are summarized in Table 8.

Grey Cement Plant

Twenty-six (26) samples in the grey cement plant area were analyzed for pH. The sample locations are as follows:

- SW-17-1 and 5

- SW-16-1 and 5
- GCP-LT-1-1
- GCP-LT-2-1, 5, and 10
- GCP-LT-3-1, 5, and 10
- GCP-LT-4-1, 5, and 10
- GCP-LT-6-1, 5, and 10
- GCP-LT-7-1, 5, and 10
- GCP-LT-8-1, 5, and 10
- GCP-LT-9-1, 5, and 10

The pH levels ranged from 7.05 and 11.4. The average pH of the twenty-six (26) samples is 8.63. The results are summarized in Table 9.

Material Storage Area

Twenty-one (21) samples in the material storage area were analyzed for pH. The sample locations are as follows:

- SW-8-1, 5 and other
- SW-9-1 and 5
- SW-10-1 and 5; SW-10-5-white
- SW-13-1 and 5; SW-13-1-white; SW-13-5-white
- SW-14-1 and 5
- SW-15-1 and 5; SW-15-1-brn; SW-15-5-white
- MSA-LT-5-1, 5 and 10

The pH levels ranged from 9.12 and 13. The average pH of the twenty-one (21) samples is 11.11. The results are summarized in Table 10.

Maintenance, Administration, and Packaging

Eighteen (18) samples in the maintenance, administration, and packaging area were analyzed for pH. The sample locations are as follows:

- SW-3-1 and 5
- SW-11-1 and 5
- SW-12-1 and 5
- SW-20-1 and 5

- MAP-SB-2-10, 30 and 50
- MAP-LT-2-1, 5 and 10
- MAP-LT-3-1, 5 and 10
- MAP-LT-4-1

The pH levels ranged from 6.18 and 9.65. The average pH of the eighteen (18) samples is 8.21. The results are summarized in Table 6.

Vacant Land

Twenty-one (21) samples in the Vacant Land were analyzed for pH. The sample locations are as follows:

- SW-1-1 and 5
- SW-2-1 and 5
- SW-4-6", 1 and 5
- SW-5-6", 1 and 5
- SW-6-6", 1 and 5
- SW-7-1 and 5
- VL-LT-2-6", 1 and 5
- VL-LT-3-6", 1 and 5

The pH levels ranged from 6.59 and 9.02. The average pH of the twenty-one (21) samples is 7.76. The results are summarized in Table 11.

5.0 COMPOUNDS ABOVE SCREENING LEVELS

Based on the analytical results, only arsenic, lead, and Cr^{VI} exceeded their respective SLs. Of these three constituents, arsenic was encountered above its SL site wide (Figure 3). Of the 144 soil samples that were analyzed for metals (i.e., Arsenic), 114 soil samples had concentrations of arsenic above its commercial/industrial SL of 4.2 mg/kg. These arsenic concentrations are in the range of regional levels reported by Bradford, 1996 and Chernoff, 2008, for soils in Southern California which typically range from 1 mg/kg to 10 mg/kg. Of the 114 arsenic results above the SL, only 28 samples reported arsenic above the upper bound of the regional background level of 10 mg/kg. The average of the 28 samples is 19.6 mg/kg with a maximum level of 68.1 mg/kg.

Only one (1) soil sample out of 144 samples analyzed for metals reported lead concentrations above its commercial/industrial SL of 320 mg/kg. Lead was detected in SW-13-5-white which is located in the Material Storage Area at a concentration of 514 mg/kg. This sample was associated with a white clay material, which is distinguishable from the surrounding soils, that was used as a feed product during the cement manufacturing process. The remaining 143 samples were below the SL of 320 mg/kg with an average lead concentration of 19.56 mg/kg.

Only three (3) soil samples out of 144 samples analyzed for Cr^{VI} exceeded its commercial/industrial RSL of 6.3 mg/kg. The three samples were GCP-LT-9-10, SMC-SB-1-5, and SMC-SB-1-10 at concentrations of 8.35 mg/kg, 9.24 mg/kg, and 8.66 mg/kg, respectively. The Cr^{VI} concentration in GCP-LT-9-10 is located in a berm east of the former Grey Kilns, where previous cement kiln dust (CKD) was placed with soil during cement operations (Figure 3 and Table 12). The material excavated from this berm contained CKD material based on observations during the excavation of the trench. An approximate 2-foot thick layer of CKD material is also observed along the southern boundary of this berm. The Cr^{VI} concentrations in the SMC-SB borings are located in the vicinity of the Wet Weather Quarry where prior raw and non-specification cement materials were deposited.

6.0 CONCLUSIONS

Langan Engineering and Environmental Services, Inc. (Langan) implemented the California Department of Toxic Substances Control (DTSC) approved Site Assessment Work Plan (SAWP) for the Agua Mansa Commerce Park from 11 July 2018 to 26 July 2018. The investigation included the excavation and soil sampling of twenty (20) composite shallow test pits (SWs), thirty-two (32) deep excavations (i.e. MAP-LT), six (6) soil borings (i.e. MAP-SB), installation of eleven dual-nested soil gas probes (i.e., MAP-SG), and collection of soil gas samples. The locations of the sampling activities are shown on Figure 2. A total of 144 soil samples were collected. The soil samples were collected from the trenches and soil boring for the one or more of the following analysis: TPH, VOCs, SVOCs, PAHs, Title 22 Metals, PCBs, Dioxins, and Cr^{VI}.

Soil gas samples collected from the 11 soil gas locations were analyzed for VOCs and TPH following EPA Method 8260B using an on-site mobile laboratory. The results indicated that VOCs and TPH were not detected above their respective reporting limits. Therefore, no further soil gas investigation is recommended.

The following constituents were not reported above their respective reporting limits in the soil samples analyzed: PCBs, Pesticides and herbicides, VOCs and SVOCs. PAHs were reported in three samples above their respective detection limit; however, there was not a corresponding DTSC screening levels (SL) for commercial/industrial soils (June 2018) for these compounds. Dioxins were reported below the residential SL of 50 ppt in sixty-eight (68) samples collected and analyzed at the Site. A total of eighty-seven (87) soil samples were collected and analyzed for TPH. The maximum TPH concentration reported was 524.5 mg/kg within the motor oil range (C_{23} – C_{40}) in the Material Storage Area at SW-15-1. No further assessment is recommended for these compounds.

Based on the results of the investigation, the following conclusions are provided:

- Arsenic was reported above the DTSC SL site-wide (114 samples) and above the published upper bound regional background concentrations of 10 mg/kg (29 samples). Published literature indicates that Arsenic is a metal commonly measured in soils throughout California. The maximum arsenic concentration associated with soils above the regional background was 28.9 mg/kg. Based on the information provided above, no further action is recommended for arsenic.

- The single lead concentration detected above the SL of 320 mg/kg in sample SW-13-5-white (514 mg/kg) was encountered in the Material Storage Area in a white clay material, which was a feed product in the cement manufacturing process. The other 170 samples analyzed for lead were below the SL of 320 mg/kg. Based on this information, no further action is recommended for lead.

- Cr^{VI} was reported above the Environmental Protection Agency (EPA) commercial/industrial RSL of 6.3 mg/kg in only three samples (GCP-LT-9-10, SMC-SB-1-5, and SMC-SB-1-10). Sample GCP-LT-9-10 is located in a berm east of the Grey Kilns and former baghouses where previous Cement Kiln Dust (CKD) material was placed during the cement plant operations (Table 12 and Figure 3). Samples SMC-SB-1-5 and SMC-SB-1-10 are located in the Wet Weather Quarry area where non-specification cement product was deposited during the cement plant operations (Table 12 and Figure 3).

  At the request of DTSC in a meeting on 2 July 2018, a synthetic precipitation leaching procedure (SPLP) test was performed on two samples, SMC-SB-1-5 (9.24 mg/kg) and

SMC-SB-1-30 (5.32 mg/kg), to evaluate the potential leachability of Cr^{VI} into the groundwater. The results of the SPLP test reported concentrations of 28.5 micrograms per liter (µg/L) and 34.4 µg/L in SMC-SB-1-5 and SMC-SB-1-30, respectively (Figure 2 and Table 7). A Maximum Contaminant Level (MCL) does not exist in California for Cr^{VI}; however, the above values are less than the total chrome MCL of 50 µg/L. Based on this information no further action is recommended for Cr^{VI}.

The lead and Cr^{VI} concentrations that exceed their respective SLs appear to be associated primarily with former cement feed product (i.e. white clay and/or CKD), and appear to be localized within the Material Storage Area, Gray Cement Plant, and in the vicinity of the Wet Weather Quarry.

The areas that encountered refusal during the proposed SAWP trench sampling activities are located in the Maintenance, Administration, and Packaging and Grey Cement Plant study areas. The trenches located in the above areas are located where the former original cement plant was demolished prior to the subsequent renovations and construction of the present day cement plant. In addition, the area of the former Sag Pond (Figure 2) where TPH concentrations were encountered (LT-9, 1,700 mg/kg and 950 mg/kg at 4 feet and 8 feet, respectively) during Langan's Preliminary Environmental Assessment (PEA) was not accessible during this assessment due to the debris prohibiting access. These areas will need to be addressed during the demolition phase of the project along with the areas underlying the existing buildings/structures as outlined in the DSTC approved SAWP. These areas will be addressed in the Response Plan, which will include a Demolition and Soils Management Plan that will be submitted and approved by DTSC prior to implementation.

7.0 REFERENCES

Bradford, G.R., *et al.* March 1996. Background Concentrations of Trace and Major Elements in California Soils.

Cal Tank Testing. 3 May 1988. Investigation of Excavation Soils Beneath Two Tank Removal Localities at the Riverside Cement Company in the County of Riverside.

Chernoff, G., *et al.* March 2008. Determination of a Southern California Regional Background Arsenic Concentration in Soil.

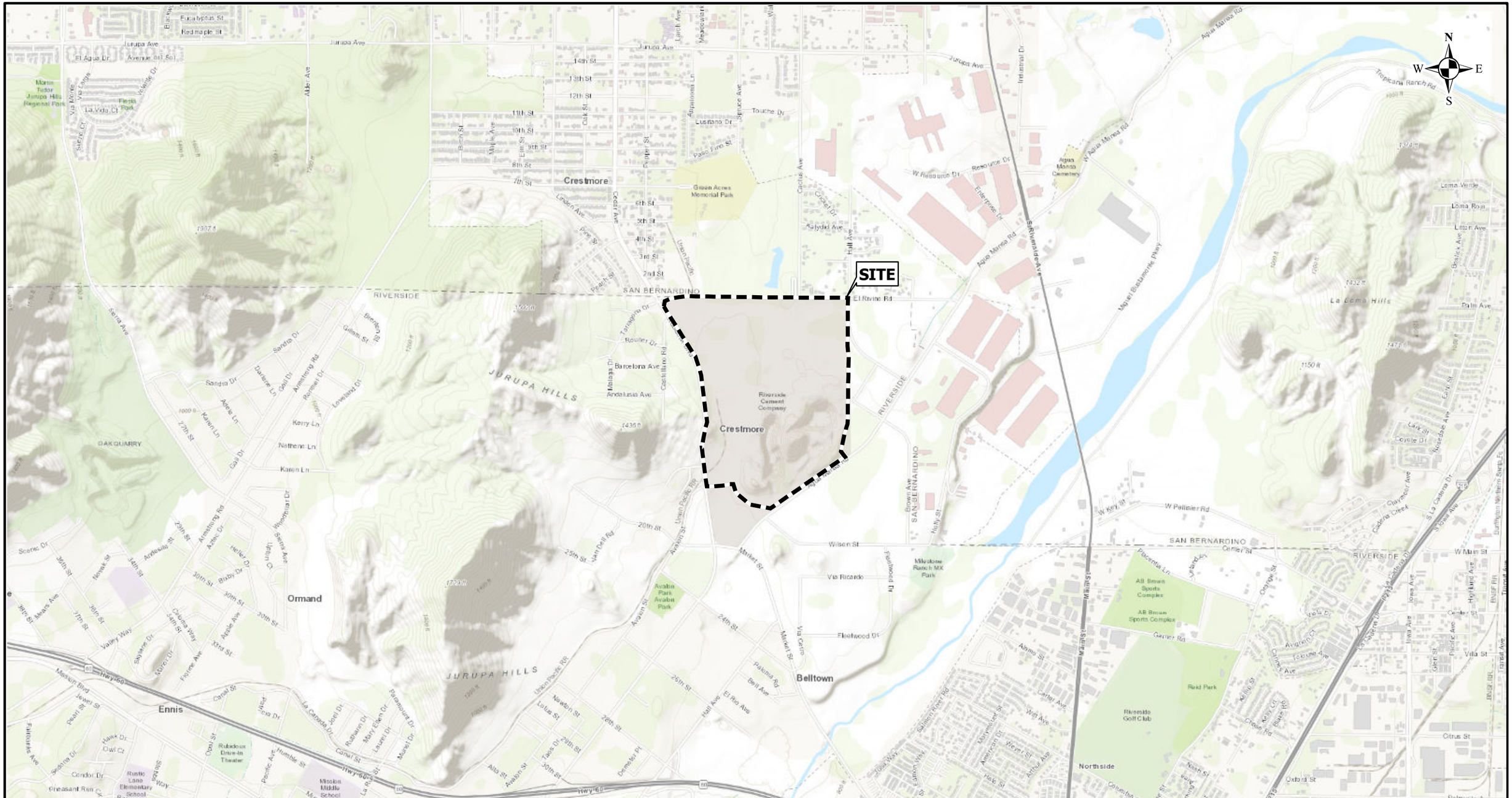
DTSC HHRA. April 2017. HERO HHRA Note No. 2.

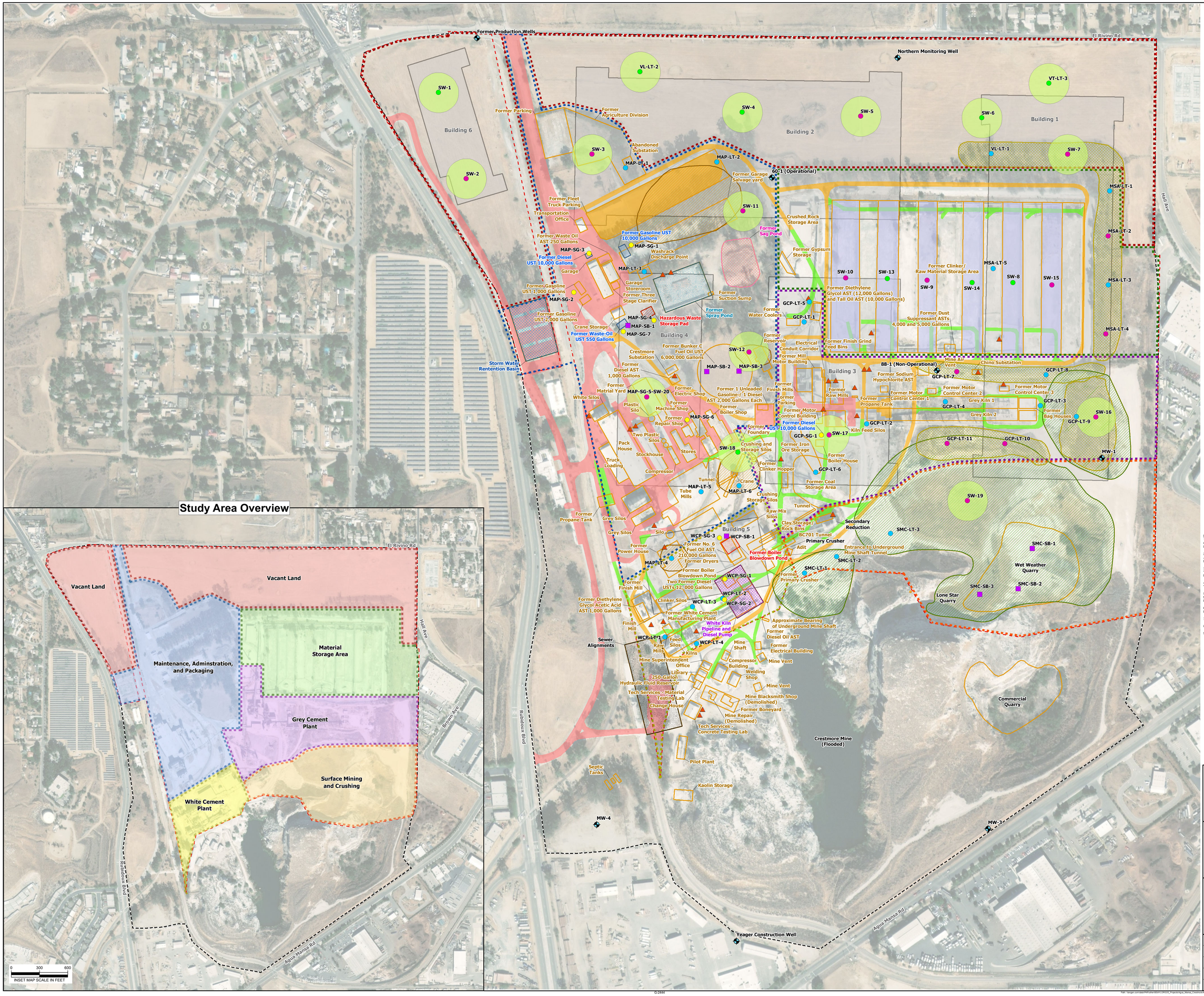
DTSC letter, dated 19 July 2018. Conditional Approval of Site Assessment Workplan – Agua Commerce Park, Jurupa Valley, California.

ERM-West. 26 June 1987. Investigation of Soil conditions Below and Adjacent to the Fuel Storage at the Riverside Cement Crestmore Plant.

Langan Engineering and Environmental Services. Revised 10 July 2018. 1 June 2018. Site Assessment Work Plan.

FIGURES


SITE
Crestmore
Riverside Cement Company
Crestmore
SAN BERNARDINO
RIVERSIDE
JURUPA HILLS
OAKQUARRY
Ormand
Ennis
Belltown
La Loma Hills
Northside
Green Acres Memorial Park
Agua Mansa Cemetery
Riverside Golf Club
Reid Park
AB Brown Sports Complex
Milestone Ranch MX Park
Avalon Park
Mission Middle School
Rubidoux Drive-In Theater
Rustic Lane Elementary School
Jurupa Ave
El Rivino Rd
Agua Mansa Rd
W Agua Mansa Rd
Resource Dr
Cactus Ave
Hall Ave
Market St
Wilson St
Via Ricardo
Fleetwood Dr
Barcelona Ave
Andalusia Ave
Malaga Dr
Castellano Rd
Rosslyn Dr
Tarragona Dr
Sandra Dr
Kerry Ln
Nethene Ln
Karen Ln
Sierra Ave
Armstrong Rd
Valley Way
Skyline Dr
Mohr Dr
Fairmile Ave
Apple Ave
Canal St
Jewel St
Pearl St
Hawk Dr
Owl Ct
Condor Dr
Pheasant Run Ct
Seaview Dr
Fairforest Ave
Pacific Ave
Humble St
Hwy-60
Union Pacific RR
Van Dell Rd
Lurline Ave
Linden Ave
Cedar Ave
Pine St
Peach St
Locust Ave
Spruce Ave
Touche Dr
Lusitano Dr
Paso Fino St
Palomino Dr
Alder Ave
Maple Ave
Elm St
Oak St
Birch St
Eucalyptus St
Redmaple St
El Agua Dr
Avenue del Sol
Via Monte
Via Lorna
Sierra Cir
La Vida Ct
Volante Dr
Monte Tedor Jurupa Hills Regional Park
Fiesta Park
Meadowlark Ln
Arrowood Ln
Lynch Ave
Wilshire Dr
Interstrial Dr
Tropicana Ranch Rd
Loma Verde
Loma Roja
Litson Ave
Bradley Ave
Palm Ave
Cypress Ave
Lark St
Coyote Dr
Rosedale Ave
Cadena Creek
Glaymont Ave
S La Cadena Dr
Victoria Ave
Cadena Cir
Iowa Ave
Pierce St
Glen St
Vista St
Transit Ave
Hyland Ave
Center St
W Main St
Placentia Ln
Orange St
Vela Dr
Avalon Ct
Cypress Ave
Garner Rd
Alamo St
Lemgt Ave
Verdi Ave
Main St
Mission Blvd
Market St
Salmon River Rd
Mayflower Dr
American Dr
Yeoman St
Arthur Ave
Hole St
Nash St
Cedar Rd
Cedar Glen Dr
Oxford St
Palmyrita Ave
Columbia Ave
Cypress Ave
Cactus Ave
Crystal Way
Cannon Way
Miguel Bustamante Pkwy
Irwindale Ave
W Key St
W Pellissier Rd
Caroline Ct
Cypress Ct
Yucca Ct
Tolosa Ave
Avalon Ct
Aspen Ct
Cypress Ave
Kelly Ln
Cedar Rd
Cedar Glen Dr
Elder Creek Rd
Bandy Ln
Bandy Ct
Heller Dr
Armstrong Rd
Aztec Dr
Rhoomar Dr
Sierra Ave
Andalusia St
Scenic Dr
Rowark St
Means Ave
Cabana Way
Canal St
Jurupa Ave
Riverside Ave
Main St
Mission Blvd
Market St
Via Carlo
Fleetwood Dr
Wilson St
Vista Ricardo
Avalon St
Avalon Park
Avalon Park
Palomino Rd
Bell Ave
El Rio Ave
Hall Ave
Alta St
Taos Dr
Newton St
Lolas St
Rathern Dr
Mary Ellen Dr
Laurel Dr
Bonanza Dr
Mural Dr
La Cadena Dr
Joel Dr
Sierra Ave
Glenn St
Birchdale St
Sandra Dr
Darlene Ln
Gail Dr
Armstrong Rd
Rosslyn Dr
Loveland Dr
Azalea Ln
Karen Ln
Kerry Ln
Nethene Ln
Sierra Ave
Rhoomar Dr
Armstrong Rd
Aztec Dr
Heller Dr
Bandy Dr
Andalusia St
Rowark St
Means Ave
Valley Way
Skyline Dr
Mohr Dr
Fairmile Ave
Apple Ave
Cabana Way



N
W E
S

Legend

- CrVI Sampling Location per SCAQMD Hexavalent Chromium Sampling Plan (2017) (SW-1)
- CrVI Sampling Location per SCAQMD Hexavalent Chromium Sampling Plan (2017) Additional TPH and PCB Analysis (SW-20)
- Soil Boring Sampling Location (MAP-SB-1)
- Soil Gas Sampling Location (MAP-SG-1)
- Trench Sampling Location (MAP-LT-1)
- Groundwater Well Location (MW-4)
- Sampling Radius - 100 ft.
- Area of Interest #11 - Former / Existing Transformers
- Area of Interest #1 - Areas with Soil Containing CKD
- Area of Interest #2 - Locations of Former USTs
- Area of Interest #3 - White Kiln Pipeline and Diesel Pump
- Area of Interest #4 - Former Boiler Blowdown Pond
- Area of Interest #5 - Former Spray Pond
- Area of Interest #6 - Former Sag Pond
- Area of Interest #7 - Hazardous Waste Storage Area
- Area of Interest #8 - Sewer Alignments
- Area of Interest #9 - Settling Area
- Area of Interest #10 - Major Fill Piles or Berms
- Area of Interest #12 - Storm Water Retention Basin
- Approximate Location of Key Site Features
- Composite Sampling Area
- Concrete or Asphalt Paving (as of 1964)
- Oil Emulsion Pavement (as of 1964)
- Suggested New Paving (as of 1964)
- Approximate Limits of Development
- Approximate Limits of Former Riverside Cement Manufacturing Plant
- Proposed Building Footprint

Study Areas

- Grey Cement Plant
- Maintenance, Adminstration, and Packaging
- Material Storage Area
- Surface Mining and Crushing
- Vacant Land
- White Cement Plant

Notes:

1. Background referenced from plan titled "Encumbrance Map, Vacant Commercial Property, Jurupa Valley, California, Topographic Information by DRC Engineering, Inc., Dated 2 March 2016.

2. Approximate site limits referenced from plan titled "Crestmore Redvelopment, Jurupa Valley, CA - Preliminary Site Plan - Scheme A.01," Prepared by RGA Office of Architectural Design, Dated 11 May 2016.

3. Approximate limits of areas are referenced from "Crestmore Plant, Hazardous Material Business Plan (HMBP)" by Riverside TXI Cement, Dated 2009.

4. Limits of Cement Kiln Dust (CKD) Disposal Areas area referenced from "Draft Technical Memorandum No.1" by Sector, Dated 25 January 2001.

5. Transformer locations referenced from "Figure 2 - Site Map, for TXI Riverside Cement Crestmore Plant, 1500 Rubidoux Boulevard, Riverside, California 92509" by Stantec, Dated 26 July 2013.

6. Asphalt types digitized from "Crestmore Plan and Vicinity" provided by Riverside Cement Company, dated 1964.

7. Underground Storage Tank (UST)

8. Above Ground Storage Tank (AST)

9. Map grid shown in California State Plane Zone 6, NAD 83. U.S. Feet.

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

Project

AGUA MANSA COMMERCE PARK

JURUPA VALLEY

RIVERSIDE COUNTY CALIFORNIA

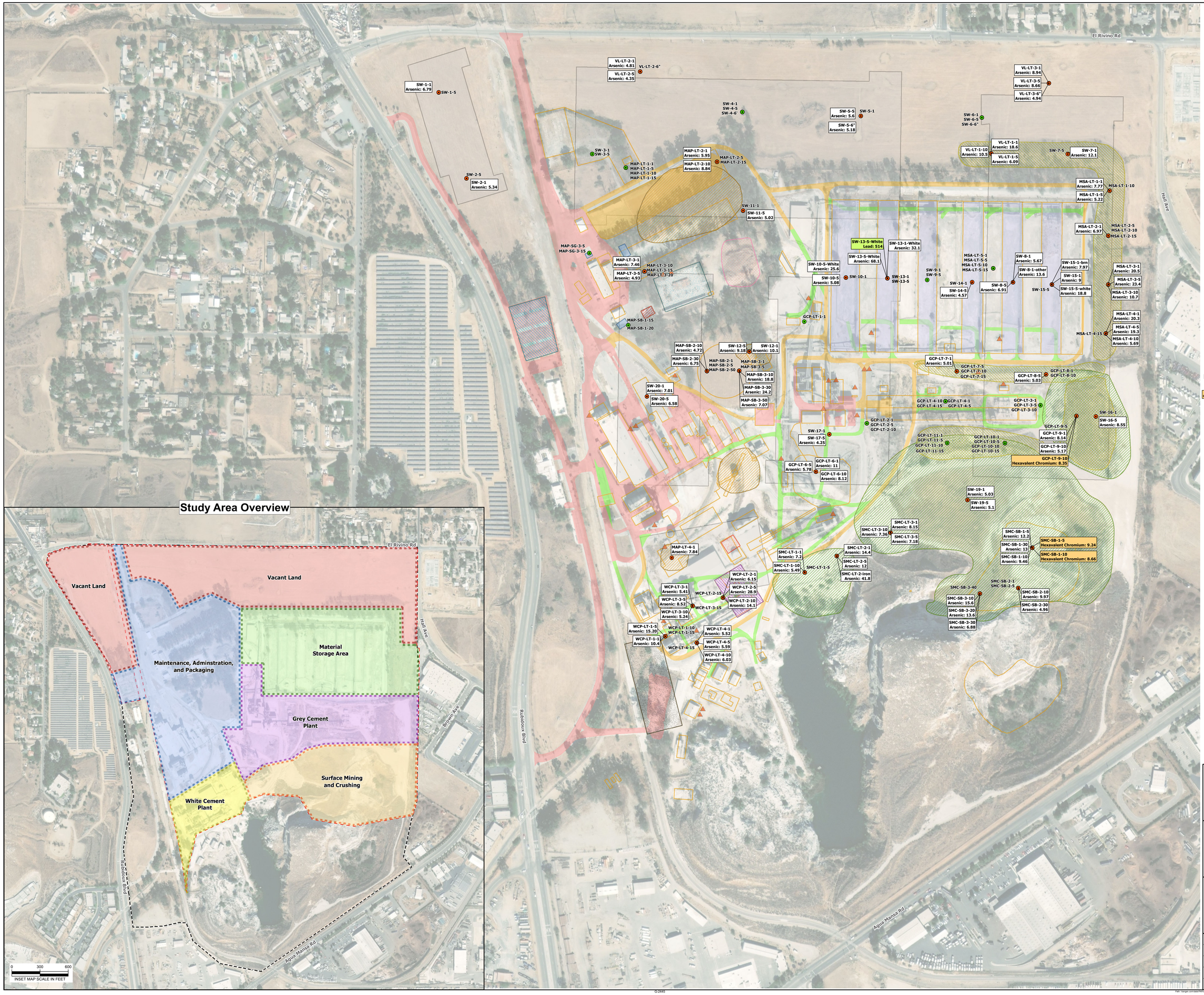
Drawing Title

SITE MAP WITH STUDY AREAS AND SAMPLING LOCATIONS

Project No. 721013501	Figure No. 2
Date 8/14/2018	
Scale 1"= 140'	
Drawn By OG	

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Path: I:\langan.com\data\PAP\office\BSA\PLOR\25_Projects\Agua_Mansa_Crestmore\Archtiteq_Documents\Environmental_Figures\SAWP\Figure 2 - Site Map with Study Areas and Sampling Locations.mxd



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Collectively known as Langan

Project
AGUA MANSA
COMMERCE PARK
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

Drawing Title
COMPOUNDS DETECTED
ABOVE SCREENING LEVELS

Project No. 721013501	Figure No. 3
Date 8/29/2018	
Scale 1"= 140'	
Drawn By OG	

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TABLES

Table 1: Summary of Field Observations
Agua Mansa Commerce Park

STUDY AREA	BLDG/STRUCTURE	FEATURE	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	No. Samples	Analytical Scheme									Soil Gas		
										TPH	Cr^{VI}	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Pesticides/ herbicides	TPH and VOCs as 8260B	Field Observations	Rationale for Deviation
SMC	Former Iron Ore Storage	Former Iron Ore Storage	SMC-LT-1	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')								Fill to 1' bgs, pinkish and red gravelly hard clay to 3' bgs, brown fine grained silty sand to 11' bgs. Observed white hard clay at 7' bgs. No odors detected. Refusal at 11' bgs.	DTSC Letter dated 7/19/18 - relocated to iron ore location
SMC	Wet Weather Quarry	Wet Weather Quarry	--	--	--	SMC-SB-1	1	100	21 (1', 5', 10', 15', 20', 25'. 30', 35', 40', 45', 50', 55', 60', 65', 70', 75', 80', 85', 90', 95', 100')	4 (5', 15', 30', 40")	4 (5', 15', 30', 40")	4 (5', 15', 30', 40")		4 (5', 15', 30', 40")	4 (5', 15', 30', 40")	2 (5', 15')	4 (5', 15', 30', 40")			Upper 24' bgs composed of very dense, 70% fine to coarse subangular sand, 15% fines, 15% gravel and dry. From 24' bgs to 33' bgs is very dense, 70% fine to medium subangular to angular sand, 15% gravel, and 10% fines, dry. No recovery obtained at 25' bgs due to very dense material. No stains or odors observed throughout. Boring terminated at 33' bgs due to refusal.	DTSC Letter dated 7/19/18 - drilling depths and analytical testing revised. Depth not achieved due to refusal
		Wet Weather Quarry	--	--	--	SMC-SB-2	1	100	21 (1', 5', 10', 15', 20', 25'. 30', 35', 40', 45', 50', 55', 60', 65', 70', 75', 80', 85', 90', 95', 100')	4 (5', 15', 30', 40")	4 (5', 15', 30', 40")	4 (5', 15', 30', 40")		4 (5', 15', 30', 40")	4 (5', 15', 30', 40")	2 (5', 15')	4 (5', 15', 30', 40")			Dense 90% fine to coarse subangular sand,10% fines, trace gravel to 25' bgs. Dense, 70% fine subangular sand, 30% fines, low to medium plasticity to 40' bgs. Observed smeared pink-ish-red mottled sand at 30' bgs. At 40' bgs, mostly fine to coarse sand, with fines and trace gravel. No stains or odors observed throughout. Boring terminated at 45' bgs due to refusal.	DTSC Letter dated 7/19/18 - drilling depths and analytical testing revised. Depth not achieved due to refusal
	Lone Star Quarry	Lone Star Quarry	--	--	--	SMC-SB-3	1	100	21 (1', 5', 10', 15', 20', 25'. 30', 35', 40', 45', 50', 55', 60', 65', 70', 75', 80', 85', 90', 95', 100')	4 (5', 15', 30', 40")	4 (5', 15', 30', 40")	4 (5', 15', 30', 40")		4 (5', 15', 30', 40")	4 (5', 15', 30', 40")	2 (5', 15')	4 (5', 15', 30', 40")			Very dense to dense, 80% fine to coarse sand, gravel, and fines to 40' bgs. Observed large pieces of weathered granite or diorite from 30' to 40' bgs. No stains or odors observed throughout. Boring terminated at 40' bgs due to refusal	DTSC Letter dated 7/19/18 - added soil boring to Lone Star Quarry Area. Depth not achieved due to refusal.
SMC	South of Secondary Reduction Crusher	South of Secondary Reduction Crusher	SMC-LT-2	1	20				5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')				Pinkish brown fine silty sand and cobbles at 1' bgs, very dense. Pocket of iron ore at 2' bgs. Brown fine grained silty sand with cobbles, white cement/clay, red clay and grey cement debris. Refusal at 5' bgs.	Refusal at 5' bgs.
SMC	Southeast of Secondary Reduction Crusher	Southeast of Secondary Reduction Crusher	SMC-LT-3	1	20				5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')				Very dense, white fine grained silty sand to 1' bgs, white to light brown moist silty sand with minor amounts of clay to 10' bgs. Equipment change to backhoe.	Refusal at 12' bgs.
SMC	Northwest of Wet Weather Quarry	Northwest of Wet Weather Quarry	SW-19	5 composite per depth	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			Silty sand, white and grey cement waste, red clay. TD 5' bgs. No stains or odors detected.	N/A
WCP	Boiler Blowdown Pond	Boiler Blowdown Pond	--	--	--	WCP-SB-1	1	20	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')	3 (5', 10', 20')							Boring not drilled. Soil samples collected at 5' and 15' bgs from soil gas probe boring WCP-SG-3 analyzed due to proximity to WCP-SB-1.	On-site approval from DTSC on 7/18/18 SZ
WCP	Boiler Blowdown Pond	Boiler Blowdown Pond	--	--	--	WCP-SG-3	1	15	2 (5' & 15')				2* (5' & 15')						2 (5' & 15')	Fine sand to coarse sand from 5' bgs to 15' bgs. No stains or odors detected. Boring terminated at 15.5' bgs.	DTSC Letter dated 7/19/18 - added nested soil gas probe (5' and 15') location.
WCP	South of Boiler Blowdown Pond	Two Former Diesel USTs 12,000 Gallons	--	--	--	WCP-SG-1	1	15	2 (5' & 15')				2* (5' & 15')						2 (5' & 15')	Sandy clay, medium to dense fine sand. No stains or odors detected. Boring terminated at 15.5' bgs.	N/A

Table 1: Summary of Field Observations
Agua Mansa Commerce Park

STUDY AREA	BLDG/STRUCTURE	FEATURE	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	No. Samples	Analytical Scheme									Soil Gas		
										TPH	Cr^{VI}	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Pesticides/ herbicides	TPH and VOCs as 8260B	Field Observations	Rationale for Deviation
WCP	Kilns	Kilns	WCP-LT-1	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')	2 (1' & 5')			Mostly fine grained silty sand. Hard white cement observed at 2.5' bgs. No stains or odors detected.	N/A
WCP			WCP-LT-2	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')				Mostly fine grained silty sand with gravel and clinker to16' bgs. Dark gray clay at 16' bgs. No stains or odors detected. Trench collapsed at 17' bgs.	Soil loose and fine-grained, walls not stable to 20' bgs.
			--	--	--	WCP-SG-2	1	15	2 (5' & 15')				2* (5' & 15')						2 (5' & 15')	Medium dense sand to 15' bgs. No stains or odors detected. Boring terminated at 15.5' bgs.	N/A
WCP			WCP-LT-3	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')				Brown fine grained silty sand to 13' bgs. Pebbles and cobbles observed at 13' bgs. No stains or odors detected. Trench collapsed at 17' bgs.	Soil loose and fine-grained, walls not stable to 20' bgs.
WCP			WCP-LT-4	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')	2 (1' & 5')			Fine grained silty sand to 20' bgs. Observed some pebbles from 12' bgs to 20' bgs. No stains or odors detected. Trench terminated at 20' bgs.	N/A
GCP	Southwest of Former Finish Grind Feed Bins	Former Water Coolers	GCP-LT-1	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')								Five locations attempted at and around GCP-LT-1. Extremely hard material - encountered refusal before 2' bgs. One sample taken (GCP-LT-1-1').	Encountered refusal after five attempted locations.
GCP	Former Grey Kiln 1 & 2	Former Grey Kiln 1 & 2	GCP-LT-2	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')	2 (1' & 5')			15' bgs sample not collected due to trench collapse. Soil fine-grained, loose, and dry.	Trench location relocated southeast of kiln feed silos by DTSC. Sample at 15' bgs not collected due to trench collapse at 10' bgs
			GCP-LT-3	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')				Loose fine-grained silty sand. No stains or odors detected. TD at 12' bgs.	Trench collapse at 12' bgs.
GCP	Baghouses	Baghouses	GCP-LT-4	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')				Loose fine-grained silty sand. No stains or odors detected. Terminated at 18' bgs due to trench collapse.	Trench collapse at 18' bgs.
GCP	Northwest corner of Grey Cement Plant	Former Diethylene Glycol AST 12,000 Gallons	GCP-LT-5	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')		2 (1' & 5')			No samples collected. Refusal before 1' bgs.	Three attempts - refusal encountered before 1' bgs.
GCP	Former Coal Storage	Former Coal Storage	GCP-LT-6	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')	3 (1', 5', 10')				Fine-grained silty sand, some red clay and CKD at 3' bgs. Very hard and dense material encountered at 15' bgs. TD at 18' bgs.	Refusal at 18' bgs.
GCP	North of Former Boiler House	Former Diesel UST 10,000 Gallons				GCP-SG-1	1	15	2 (5' & 15')				2* (5' & 15')						2 (5' & 15')	Fine-grained sand. No stains or odors. Boring terminated at 15.5' bgs.	N/A
	North/East/South Berms	North/East/South Berms	GCP-LT-7	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')	2 (1', 5')			Fine-grained silty sand. No stains or odors.	N/A
			GCP-LT-8	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')				Fine-grained silty sand. No stains or odors.	N/A

Table 1: Summary of Field Observations
Agua Mansa Commerce Park

STUDY AREA	BLDG/STRUCTURE	FEATURE	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	No. Samples	Analytical Scheme									Soil Gas		
										TPH	Cr^{VI}	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Pesticides/ herbicides	TPH and VOCs as 8260B	Field Observations	Rationale for Deviation
GCP	North/East/South Berms	North/East/South Berms	GCP-LT-9	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')				Fine-grained silty sand. Some CKD pieces starting at 10' bgs. No stains or odors. TD at 15' bgs due to trench collapse.	Trench collapse at 15' bgs.
			GCP-LT-10	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')	2 (1' & 5')			Fine-grained sand with silt. White cement/limestone at 4' bgs. No stains or odors.	N/A
			GCP-LT-11	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')	2 (1' & 5')			Fine-grained sand, white cement/hard layer at 3' bgs. No stains or odors.	N/A
GCP	East Berm	East Berm	SW-16	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			Fine-grained silty sand with interbedded clay and CKD. No stains or odors. TD at 5' bgs for all five composite trenches.	N/A
GCP	North of Former Boiler House	Former Diesel UST 10,000 Gallons	SW-17	5 compsite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			Asphalt in the upper 2''. Fine-grained silty sand with gravel. No samples collected for SW-17 South Point due to hard ground and no penetration. Sample taken at 4' bgs at SW-17 West Point. No stains or odors.	Encountered refusal at SW-17 South Point. Encountered an apparent concrete conduit/vault at approximately 4' bgs at SW-17 West Point.
MSA	Eastern Berms	Eastern Berms	MSA-LT-1	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')								Clayey sand. Some pink/red cemented material at 15' and 20' bgs. No stains or odors.	N/A
			MSA-LT-2	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')					2 (1' & 5')			Clayey sand. Some pink/red cemented material at 15' and 20' bgs. No stains or odors.	DTSC Letter dated 7/19/18 - revised sample depths for TPH
			MSA-LT-3	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')								Clayey sand. Some pink/red speckles in clay at 20' bgs. No stains or odors.	N/A
			MSA-LT-4	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')					2 (1' & 5')			Clayey sand. Some pink/red cemented material at 20' bgs. No stains or odors.	DTSC Letter dated 7/19/18 - revised sample depths for TPH
MSA	Raw Material Storage Bay	Raw Material Storage Bay	MSA-LT-5	1	20				5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')					Pinkish clay with sand in the upper 1'. Fine-grained silty sand to brown firm clay. No stains or odors detected.	DTSC Letter dated 7/19/18 - revised sample depths for TPH
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SW-8	5 composite	5	--	--	--	2 (1' & 5')		2 (1' & 5')	2 (1' & 5')								Fine-grained silty sand mixed with white clay. No stains or odors.	N/A
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SW-9	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			Fine-grained silty sand. No stains or odors.	N/A
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SW-10	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			Fine-grained silty sand to 2' bgs. White moist clay or dark gray clay to 5' bgs. No stains or odors.	N/A
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SW-13	5 composite	5	--	--	--	2 (1' & 5')		2 (1' & 5')	2 (1' & 5')								Fine-grained silty sand and white moist clay. No stains or odors.	N/A
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SW-14	5 composite	5	--	--	--	2 (1' & 5')		2 (1' & 5')	2 (1' & 5')								Fine-grained silty sand. Some cement layers at 3' bgs. No stains or odors detected.	N/A
MSA	Raw Material Storage Bay	Raw Material Storage Bay	SW-15	5 composite	5	--	--	--	2 (1'& 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			Fine-grained silty sand and white moist clay. No stains or odors.	N/A
MAP	West of Former Agriculture Division	Former Parking (Northwest)	MAP-LT-1	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')							2 (1' & 5')		Fine-grained sand. Cobbles at 10' bgs. No stains or odors. TD at 19' bgs due to trench collapse.	TD at 19' bgs - trench collapse
MAP	East of Transportation Office	Former Fleet Truck Parking	MAP-LT-2	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')		3 (1', 5', 10')	3 (1', 5', 10')					Fine-grained sand to gravel with depth. No stains or odors detected.	N/A
MAP	Former Garage Salvage Yard	Former Gasoline UST 10,000 gallons	--	--	--	MAP-SG-1	1	15	2 (5' & 15')				2* (5' & 15')						2 (5' & 15')	Sand with gravel and silt. No stains or odors detected. Boring terminated at 15.5' bgs.	N/A

Table 1: Summary of Field Observations
Agua Mansa Commerce Park

STUDY AREA	BLDG/STRUCTURE	FEATURE	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	No. Samples	Analytical Scheme									Soil Gas		
										TPH	Cr^{VI}	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Pesticides/ herbicides	TPH and VOCs as 8260B	Field Observations	Rationale for Deviation
MAP	Garage and Administrative Building	Washrack Discharge Point	MAP-LT-3	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')	3 (5', 10', 20')							Fine-grained sand. Increase in gravel and cobbles with depth starting at 5' bgs. Piece of plastic (possible wiper for conveyor belt) observed at 12' bgs. No stains or odors.	N/A
MAP	Garage and Garage Storeroom	Former Diesel UST 1,000 gallons	--	--	--	MAP-SG-2	1	15	2 (5' & 15')				2* (5' & 15')						2 (5' & 15')	Medium to very dense sand and gravel. No stains or odors detected. Boring terminated at 15.7' bgs.	N/A
MAP	Garage and Garage Storeroom	Former Diesel UST 10,000 gallons	--	--	--	MAP-SG-3	1	15	2 (5' & 15')				2* (5' & 15')						2 (5' & 15')	Medium to very dense sand with trace gravel. No stains or odors. Boring terminated at 15.5' bgs.	N/A
MAP	Southwest of Former Spray Pond	Hazardous Waste Storage Pad	--	--	--	MAP-SG-4	1	15	2 (5' & 15')				2* (5' & 15')						2 (5' & 15')	Dense to very dense sand. No stains or odors detected. Boring terminated at 15.5.' bgs.	No recovery at 10' bgs due to large gravel in sample shoe.
MAP	Crane Storage	Former Waste Oil UST 550 Gallons	--	--	--	MAP-SB-1	1	20	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')	3 (5', 10', 20')	3 (1', 5', 10')						Medium dense sand. No stains or odors. Boring terminated at 20' bgs. No recovery obtained at 10' bgs.	No recovery at 10' bgs.
MAP	Crane Storage	Former Waste Oil UST 550 Gallons	--	--	--	MAP-SG-7	1	15	2 (5' & 15')				2* (5' & 15')						2 (5' & 15')	Fine to coarse-grained sand. No recovery at 10' bgs.	No recovery at 10' bgs due to large gravel in sample shoe.
MAP	North of Former Boiler Shop	6,000,000 Gallon Bunker C Fuel Oil UST	--	--	--	MAP-SB-2	1	50	5 (1', 5', 10', 15', 20', 25', 30', 35', 40', 45', 50')	3 (10', 30', 50')		3 (10', 30', 50')	3 (10', 30', 50')	3 (10', 30', 50')	3 (10', 30', 50')					Medium dense sand to 24.5'. Stiff clay to 29.5' bgs. Dense sand to 50' bgs. No stains or odors. Boring terminated at 50' bgs. Drilling was halted on 7/16/18 at 1330. Drilling was resumed on 7/18/18.	N/A
			--	--	--	MAP-SB-3	1	50	5 (1', 5', 10', 15', 20', 25', 30', 35', 40', 45', 50')	3 (10', 30', 50')		3 (10', 30', 50')	3 (10', 30', 50')	3 (10', 30', 50')	3 (10', 30', 50')					Fine-grained sand to 34.5' bgs. Hard clay to 39.5' bgs. Very dense sand to 50' bgs. No stains or odors. Boring terminated at 50' bgs.	N/A
MAP	Former Material Yard	Former Material Yard	--	--	--	MAP-SG-5	1	15	2 (5' & 15')				2* (5' & 15')						2 (5' & 15')	Sand with gravel. No stains or odors. Boring terminated at 15.5' bgs.	N/A
						MAP-SW-20	5 composite	5	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			Fine-grained silty sand with increasing gravel and cobbles with depth. No stains or odors detected. TD at 5' bgs for all five composite holes.	N/A
MAP	Former Boiler Shop	Former Boiler Shop	--	--	--	MAP- SG-6	1	15	2 (5' & 15')				2* (5' & 15')						2 (5' & 15')	Fine-grained sand and gravel. No stains or odors. Boring terminated at 15.5' bgs.	N/A
MAP	Former Power House	Former Power House	MAP-LT-4	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')	3 (5', 10', 20')							No samples collected. Refusal. Three attempts made.	Encountered refusal at 2' bgs.
MAP	Tube Mills	Tube Mills	MAP-LT-5	1	20	--	--	--	5 (1', 5', 10', 15', 20')	3 (5', 10', 15')	3 (1', 5', 10')	3 (1', 5', 10')	3 (5', 10', 20')							No samples collected. No stains or odors. Refusal at 3-4' bgs. Three attempts made.	Refusal encountered at 3-4' bgs.
MAP	Crane	Crane	MAP-LT-6	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')								No samples collected. Refusal.	Four attempts made - encountered refusal at all four locations before 1' bgs.
MAP	Northwest of center of former Fleet Truck Parking	Former Agriculture Division	SW-3	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')						2 (1' & 5')		Fine-grained silty sand. Cobbles and coarse-grained sand increasing with depth. No stains or odors. TD at 5' bgs for all five composite trenches.	N/A
MAP	East of Former Fleet Truck Parking	East of Former Fleet Truck Parking	SW-11	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')						2 (1' & 5')		Fine-grained silty sand. Chalky white material layer observed 3.5' bgs at SW-11 South Point. Tree limbs observed 2.5' bgs at SW-11 East Point. No stains or odors. TD at 5' bgs for all five composite trenches.	N/A
MAP	North of Former Boiler Shop	6,000,000 Gallon Bunker C Fuel Oil UST	SW-12	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')						2 (1' & 5')		Fine-grained silty sand. CKD observed from 1' to 5' bgs at SW-12 West Point. No stains or odors. TD at 5' bgs for four composite trenches.	Four composite locations. Fifth location not completed due to unknown subsurface anomaly for eastern point.

Table 1: Summary of Field Observations
Agua Mansa Commerce Park

STUDY AREA	BLDG/STRUCTURE	FEATURE	Trench ID	No. Trench	Trench Depth (ft bgs)	Boring ID	No. Borings	Boring Depth (ft bgs)	No. Samples	Analytical Scheme									Soil Gas		
										TPH	Cr^{VI}	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Pesticides/ herbicides	TPH and VOCs as 8260B	Field Observations	Rationale for Deviation
MAP	South of Former Boiler Shop	South of Former Boiler Shop	SW-18	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			No samples collected. Refusal.	Four attempts made. Encountered refusal at all four locations at 1.5' bgs.
VL	Northern Berms	Northern Berms	VL-LT-1	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')								Clayey sand to clay. No stains or odors. TD at 20' bgs.	N/A
VL	NA	Background Analysis	VL-LT-2	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')				Fine-grained silty sand. Cobbles at 3' bgs. No odors or odors. TD at 5' bgs for all five composite holes.	N/A
VL	NA	Background Analysis	VL-LT-3	1	20	--	--	--	5 (1', 5', 10', 15', 20')		3 (1', 5', 10')	3 (1', 5', 10')				3 (1', 5', 10')				Fine-grained silty sand. No stains or odors detected. TD at 5' bgs for all five composite holes.	N/A
VL	NW Corner of Northern Parcel	NW Corner of Northern Parcel	SW-1	5 composite	5	--	--	--	2 (1' & 5')		2 (1' & 5')	2 (1' & 5')								Fine to medium-grained silty sand. No stains or odors. TD at 5' bgs for all five composite holes.	N/A
VL	NW Corner of Northern Parcel	NW Corner of Northern Parcel	SW-2	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			Fine-grained silty sand. No odors or PID readings detected. TD at 5' bgs for all five composite holes.	N/A
VL	Northern Parcel	Northern Parcel	SW-4	5 composite	5	--	--	--	2 (1' & 5')		2 (1' & 5')	2 (1' & 5')								Fine-grained silty sand. Cobbles at 3' bgs. No odors or PID readings. TD at 5' bgs for all five composite holes.	N/A
VL	Northern Parcel	Northern Parcel	SW-5	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')				2 (1' & 5')	2 (1' & 5')			Fine-grained silty sand. Reddish-brown sand at 4' bgs. No odors or PID readings. TD at 5' bgs for all five composite holes.	N/A
VL	Northern Parcel	Northern Parcel	SW-6	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')				2 (1' & 5')	2 (1' & 5')			Fine-grained silty sand. No odors or PID readings. TD at 5' bgs for all five composite holes.	N/A
VL	Northern Berms	Northern Berms	SW-7	5 composite	5	--	--	--	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')	2 (1' & 5')					2 (1' & 5')			Fine-grained silty sand. No odors or PID readings. TD at 5' bgs for all five composite holes.	N/A

Note: * - Soil samples analyzed for VOCs only if VOCs are detected in soil gas samples.

Table 2: Soil Gas Purge Rates for 26 July 2018 Sampling Event
Agua Mansa Commerce Park

200 cc/min Purge Rate	500 cc/min Purge Rate
MAP-SG-3-5'	MAP-SG-1-5'
MAP-SG-3-15'	MAP-SG-1-15'
MAP-SG-4-5'	MAP-SG-2-5'
MAP-SG-4-15'	MAP-SG-2-15'
MAP-SG-6-5'	MAP-SG-5-5'
MAP-SG-6-15'	MAP-SG-5-15'
WCP-SG-2-5'	MAP-SG-7-5'
WCP-SG-2-15'	MAP-SG-7-15'
	WCP-SG-1-5'
	WCP-SG-1-15'
	WCP-SG-3-5'
	WCP-SG-3-15'
	GCP-SG-1-5'
	GCP-SG-1-15'

Table 3: Summary of Soil Gas Analytical Results
Agua Mansa Commerce Park

		Sample ID:	GCP-SG-1-15	GCP-SG-1-5	MAP-SG-1-15	MAP-SG-1-15 REP	MAP-SG-1-5	MAP-SG-1-5 REP	MAP-SG-2-15	MAP-SG-2-5	MAP-SG-3-15	MAP-SG-3-5	MAP-SG-4-15	MAP-SG-4-5	MAP-SG-5-15	MAP-SG-5-5	MAP-SG-6-15	MAP-SG-6-5	MAP-SG-7-15
		Sample Date:	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018
		Feature:	Former Diesel UST 10,000 Gallons	Former Diesel UST 10,000 Gallons	Former Gasoline UST 10,000 Gallons	Former Gasoline UST 10,000 Gallons	Former Gasoline UST 10,000 Gallons	Former Gasoline UST 10,000 Gallons	Former Gasoline UST 1,000 Gallons	Former Gasoline UST 1,000 Gallons	Former Diesel UST 10,000 Gallons	Former Diesel UST 10,000 Gallons	Hazardous Waste Storage Pad	Hazardous Waste Storage Pad	Former Material Yard	Former Material Yard	Former Repair/Machine Shop	Former Repair/Machine Shop	Former Waste-Oil UST 550-gallons
Analytes:	**Practical Quantitation Limit**	**Unit**																	
Benzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2- Dichlorobenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Freon 113	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 3: Summary of Soil Gas Analytical Results
Agua Mansa Commerce Park

		Sample ID:	GCP-SG-1-15	GCP-SG-1-5	MAP-SG-1-15	MAP-SG-1-15 REP	MAP-SG-1-5	MAP-SG-1-5 REP	MAP-SG-2-15	MAP-SG-2-5	MAP-SG-3-15	MAP-SG-3-5	MAP-SG-4-15	MAP-SG-4-5	MAP-SG-5-15	MAP-SG-5-5	MAP-SG-6-15	MAP-SG-6-5	MAP-SG-7-15
		Sample Date:	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018
		Feature:	Former Diesel UST 10,000 Gallons	Former Diesel UST 10,000 Gallons	Former Gasoline UST 10,000 Gallons	Former Gasoline UST 10,000 Gallons	Former Gasoline UST 10,000 Gallons	Former Gasoline UST 10,000 Gallons	Former Gasoline UST 1,000 Gallons	Former Gasoline UST 1,000 Gallons	Former Diesel UST 10,000 Gallons	Former Diesel UST 10,000 Gallons	Hazardous Waste Storage Pad	Hazardous Waste Storage Pad	Former Material Yard	Former Material Yard	Former Repair/Machine Shop	Former Repair/Machine Shop	Former Waste-Oil UST 550-gallons
Analytes:	**Practical Quantitation Limit**	**Unit**																	
1,2,4-Trimethylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m,p-Xylene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MTBE	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl-tert-butylether	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-isopropylether	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-amylmethylether	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol	400	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gasoline Range Organics (C4-C12)	2000	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TIC:																			
n-Pentane	400	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Hexane	400	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Heptane	400	µg/m^3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 3: Summary of Soil Gas Analytical Results
Agua Mansa Commerce Park

		Sample ID:	MAP-SG-7-5	WCP-SG-1-15	WCP-SG-1-5	WCP-SG-2-15	WCP-SG-2-5	WCP-SG-3-15	WCP-SG-3-5
		Sample Date:	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018
		Feature:	Former Waste-Oil UST 550-gallons	Two Former Diesel USTs 12,000 Gallons	Two Former Diesel USTs 12,000 Gallons	White Kiln Pipeline and Diesel Pump	White Kiln Pipeline and Diesel Pump	Former Boiler Blowdown Pond	Former Boiler Blowdown Pond
Analytes:	**Practical Quantitation Limit**	**Unit**							
Benzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Bromobenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Bromoform	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Chloroform	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane (EDB)	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,2- Dichlorobenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Freon 113	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
4-Isopropyltoluene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Naphthalene	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Styrene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Toluene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND

Table 3: Summary of Soil Gas Analytical Results
Agua Mansa Commerce Park

		Sample ID:	MAP-SG-7-5	WCP-SG-1-15	WCP-SG-1-5	WCP-SG-2-15	WCP-SG-2-5	WCP-SG-3-15	WCP-SG-3-5
		Sample Date:	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018	7/16/2018
		Feature:	Former Waste-Oil UST 550-gallons	Two Former Diesel USTs 12,000 Gallons	Two Former Diesel USTs 12,000 Gallons	White Kiln Pipeline and Diesel Pump	White Kiln Pipeline and Diesel Pump	Former Boiler Blowdown Pond	Former Boiler Blowdown Pond
Analytes:	**Practical Quantitation Limit**	**Unit**							
1,2,4-Trimethylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
m,p-Xylene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
o-Xylene	8	µg/m^3	ND	ND	ND	ND	ND	ND	ND
MTBE	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Ethyl-tert-butylether	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Di-isopropylether	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND
tert-amylmethylether	40	µg/m^3	ND	ND	ND	ND	ND	ND	ND
tert-Butylalcohol	400	µg/m^3	ND	ND	ND	ND	ND	ND	ND
Gasoline Range Organics (C4-C12)	2000	µg/m^3	ND	ND	ND	ND	ND	ND	ND
TIC:									
n-Pentane	400	µg/m^3	ND	ND	ND	ND	ND	ND	ND
n-Hexane	400	µg/m^3	ND	ND	ND	ND	ND	ND	ND
n-Heptane	400	µg/m^3	ND	ND	ND	ND	ND	ND	ND

Table 4: Summary of SCAQMD Analytical Results
Agua Mansa Commerce Park

					SAMPLENAME	SW-1-1		SW-1-5		SW-2-1		SW-2-5		SW-3-1		SW-3-5		SW-4-6"		SW-4-1
					SAMPDATE	07/16/2018 13:25:00		07/16/2018 13:30:00		07/16/2018 12:20:00		07/16/2018 12:25:00		07/13/2018 08:55:00		07/13/2018 09:00:00		07/12/2018 10:25:00		07/12/2018 11:20:00
					Feature	NW Corner of Northern Parcel		NW Corner of Northern Parcel		NW Corner of Northern Parcel		NW Corner of Northern Parcel		Former Agriculture Division		Former Agriculture Division		Northern Parcel		Northern Parcel
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**
Method 6010 CAM 16 Metals																				
Antimony	0.37	3	-	4.54	mg/Kg		8.33	<	3		5.07	<	3	<	3	<	3	<	3	4.02
Arsenic	0.36	1	4.2	4.60	mg/Kg		6.79		4.05		5.34		1.45		3.39		2.13	<	1	2.26
Barium	0.23	1	-	44.51	mg/Kg		57.9		25.1		78.4		28.8		65.1		50.9		53.4	44.1
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	< 0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	< 0.5
Chromium	0.13	1	170000	13.95	mg/Kg		15.6		9.96		17.2		10.2		20.4		13.6		13.8	13.4
Cobalt	0.19	0.5	-	6.33	mg/Kg		8.28		6.25		8.53		5.7		5.75		6.74		5.51	5.53
Copper	0.31	1	-	11.84	mg/Kg		10.8		8.97		13.4		8.6		13.7		10.9		16.4	11.1
Lead	0.32	1	320	9.43	mg/Kg		10.6		4.98		15.8		4.99		17.6		6.8		13	12.2
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1	<	1	<	1	<	1	<	1	< 1
Nickel	0.2	1.5	3100	10.03	mg/Kg		10.4		7.81		11.4		7.22		7.64		7.54		8.09	9.22
Selenium	0.72	3	-	7.11	mg/Kg	<	3	<	3		5.66	<	3		5.3		6.74		3.42	9.27
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	< 0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3		3.27		3.24	<	3	<	3	<	3	< 3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		30.2		23		31.2		20.9		27.3		28.5		22.2	23.6
Zinc	0.28	5	-	36.75	mg/Kg		44.4		28.4		54.6		27.7		57.7		33.7		64.1	42
EPA 7199 Hexavalent Chromium																				
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	< 0.4
EPA Method 7471A Mercury																				
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	< 0.14
PCBs EPA Method 8082																				
PCB-1016	0.03	0.05	-	0.05	mg/Kg					<	0.05	<	0.05	<	0.05	<	0.05			
PCB-1221	0.14	0.05	-	0.05	mg/Kg					<	0.05	<	0.05	<	0.05	<	0.05			
PCB-1232	0.10	0.05	-	0.05	mg/Kg					<	0.05	<	0.05	<	0.05	<	0.05			
PCB-1242	0.14	0.05	-	0.05	mg/Kg					<	0.05	<	0.05	<	0.05	<	0.05			
PCB-1248	0.19	0.05	-	0.05	mg/Kg					<	0.05	<	0.05	<	0.05	<	0.05			
PCB-1254	0.20	0.05	-	0.05	mg/Kg					<	0.05	<	0.05	<	0.05	<	0.05			
PCB-1260	0.07	0.05	-	0.05	mg/Kg					<	0.05	<	0.05	<	0.05	<	0.05			
PCB-1262	0.17	0.05	-	0.05	mg/Kg					<	0.05	<	0.05	<	0.05	<	0.05			
PCB-1268	0.09	0.05	-	0.05	mg/Kg					<	0.05	<	0.05	<	0.05	<	0.05			
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																				
C7-C8	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48	<	2.48			
C9-C10	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48	<	2.48			
C11-C12	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48	<	2.48			
C13-C14	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48	<	2.48			
C15-C16	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48	<	2.48			
C17-C18	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48	<	2.48			
C19-C20	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48	<	2.48			
C21-C22	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48	<	2.48			
C23-C24	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48		2.93	<	2.48			
C25-C27	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48		3.18	<	2.48			
C28-C33	1.56	2.48	-	5.08	mg/kg						7.73	<	2.48		33		4.29			
C34-C40	1.56	2.48	-	2.71	mg/kg						3.87	<	2.48		59.9		4.09			
pH EPA Method 9045																				
pH				7.55	pH Units										8.29		8.46		7.69	7.57
Temperature				23.02	°C										23.4		23.3		23.1	23.1
EPA Method 8290 Dioxins																				
2,3,7,8-TCDD					ng/kg															
1,2,3,7,8-PeCDD					ng/kg															
1,2,3,4,7,8-HxCDD					ng/kg															
1,2,3,6,7,8-HxCDD					ng/kg															
1,2,3,7,8,9-HxCDD					ng/kg															
1,2,3,4,6,7,8-HpCDD					ng/kg															
OCDD					ng/kg															
2,3,7,8-TCDF					ng/kg															
1,2,3,7,8-PeCDF					ng/kg															
2,3,4,7,8-PeCDF					ng/kg															

Table 4: Summary of SCAQMD Analytical Results
Agua Mansa Commerce Park

					SAMPLENAME	SW-1-1		SW-1-5		SW-2-1		SW-2-5		SW-3-1		SW-3-5		SW-4-6"		SW-4-1	
					SAMPDATE	07/16/2018 13:25:00		07/16/2018 13:30:00		07/16/2018 12:20:00		07/16/2018 12:25:00		07/13/2018 08:55:00		07/13/2018 09:00:00		07/12/2018 10:25:00		07/12/2018 11:20:00	
					Feature	NW Corner of Northern Parcel		NW Corner of Northern Parcel		NW Corner of Northern Parcel		NW Corner of Northern Parcel		Former Agriculture Division		Former Agriculture Division		Northern Parcel		Northern Parcel	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	<		<		<		<		<		<		<		<	
EPA Method 8290 Dioxins																					
1,2,3,4,7,8-HxCDF					ng/kg																
1,2,3,6,7,8-HxCDF					ng/kg																
2,3,4,6,7,8-HxCDF					ng/kg																
1,2,3,7,8,9-HxCDF					ng/kg																
1,2,3,4,6,7,8-HpCDF					ng/kg																
1,2,3,4,7,8,9-HpCDF					ng/kg																
OCDF					ng/kg																
Total TCDDs					ng/kg																
Total PeCDDs					ng/kg																
Total HxCDDs					ng/kg																
Total HpCDDs					ng/kg																
Total TCDFs					ng/kg																
Total PeCDFs					ng/kg																
Total HxCDFs					ng/kg																
Total HpCDFs					ng/kg																
ES 2,3,7,8-TCDD					%																
ES 1,2,3,7,8-PeCDD					%																
ES 1,2,3,4,7,8-HxCDD					%																
ES 1,2,3,6,7,8-HxCDD					%																
ES 1,2,3,7,8,9-HxCDD					%																
ES 1,2,3,4,6,7,8-HpCDD					%																
ES OCDD					%																
ES 2,3,7,8-TCDF					%																
ES 1,2,3,7,8-PeCDF					%																
ES 2,3,4,7,8-PeCDF					%																
ES 1,2,3,4,7,8-HxCDF					%																
ES 1,2,3,6,7,8-HxCDF					%																
ES 2,3,4,6,7,8-HxCDF					%																
ES 1,2,3,7,8,9-HxCDF					%																
ES 1,2,3,4,6,7,8-HpCDF					%																
ES 1,2,3,4,7,8,9-HpCDF					%																
ES OCDF					%																
SS 37Cl-2378-TCDD					%																
SS 12347-PeCDD					%																
SS 12346-PeCDF					%																
SS 123469-HxCDF					%																
SS 1234689-HpCDF					%																
AS 1368-TCDD					%																
AS 1368-TCDF					%																
ITEF TEQ (ND=0; EMPC=0)					ng/kg																
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg																
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg																
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg																
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg																
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg																
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg																
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg																
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg																
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg																

Table 4: Summary of SCAQMD Analytical Results
Agua Mansa Commerce Park

					SW-4-5		SW-5-6"		SW-5-1		SW-5-5		SW-6-6"		SW-6-1		SW-6-5		SW-7-1		SW-7-5		SW-8-1
					07/12/2018 11:25:00		7/12/2018 13:00:00 PM		7/12/2018 13:55:00 PM		7/12/2018 14:00:00 PM		07/12/2018 14:30:00		07/12/2018 15:15:00		07/12/2018 15:20:00		07/17/2018 09:55:00		07/17/2018 10:00:00		07/18/2018 08:20:00
					Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Berms		Northern Berms		Raw Material Storage Bay
Analyte	**DL**	**RL**	**SL**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
Method 6010 CAM 16 Metals																							
Antimony	0.37	3	-	<	3		3.74		7.31		4.91		6.5	<	3		6.22	<	3	<	3	<	3
Arsenic	0.36	1	4.2		2.88		5.18	<	1		5.6		3.1		3.37		4.15		12.1		3.64		5.67
Barium	0.23	1	-		29		39.1		30.7		35.7		62.4		49.4		39.6		66		53.7		30.7
Beryllium	0.17	0.5	210	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Chromium	0.13	1	170000		9.96		13.1		10.7		12.6		16.9		15		12.9		23.1		21.6		16.4
Cobalt	0.19	0.5	-		4.8		5.41		4.89		5.66		6.68		6.42		5.72		10.4		9.06		4.7
Copper	0.31	1	-		8.64		10.7		8.24		9.4		21.1		13.7		11.8		19.8		19.6		10.9
Lead	0.32	1	320		4.73		13.7		8.85		7.52		14.5		7.98		4.3		11.6		8.86		9.22
Molybdenum	0.13	1	-	<	1	<	1	<	1	<	1	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	0.2	1.5	3100		7.6		8.41		7.3		9.13		10.8		9.85		10.2		17.2		18.4		6.87
Selenium	0.72	3	-	<	3		14.6		10.4		7.83		12.2		10.3	<	3		6.24	<	3		4.65
Silver	0.13	0.5	1500	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	<	3	<	3	<	3	<	3	<	3	<	3	<	3	<	3	<	3	<	3
Vanadium	0.37	0.5	1000		18.8		25		20.3		23.4		26.6		25.8		23.2		37.3		31.8		21.8
Zinc	0.28	5	-		26.7		41.8		30.7		30.7		69.7		35.8		27.4		50		43		23.8
EPA 7199 Hexavalent Chromium																							
Hexavalent Chromium	0.2	0.4	6.3	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4		0.767
EPA Method 7471A Mercury																							
Mercury	0.02	0.14	4.4	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																							
PCB-1016	0.03	0.05	-			<	0.05	<	0.05	<	0.05							<	0.05	<	0.05		
PCB-1221	0.14	0.05	-			<	0.05	<	0.05	<	0.05							<	0.05	<	0.05		
PCB-1232	0.10	0.05	-			<	0.05	<	0.05	<	0.05							<	0.05	<	0.05		
PCB-1242	0.14	0.05	-			<	0.05	<	0.05	<	0.05							<	0.05	<	0.05		
PCB-1248	0.19	0.05	-			<	0.05	<	0.05	<	0.05							<	0.05	<	0.05		
PCB-1254	0.20	0.05	-			<	0.05	<	0.05	<	0.05							<	0.05	<	0.05		
PCB-1260	0.07	0.05	-			<	0.05	<	0.05	<	0.05							<	0.05	<	0.05		
PCB-1262	0.17	0.05	-			<	0.05	<	0.05	<	0.05							<	0.05	<	0.05		
PCB-1268	0.09	0.05	-			<	0.05	<	0.05	<	0.05							<	0.05	<	0.05		
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																							
C7-C8	1.56	2.48	-			<	2.48	<	2.48	<	2.48							<	2.48	<	2.48		
C9-C10	1.56	2.48	-			<	2.48	<	2.48	<	2.48							<	2.48	<	2.48		
C11-C12	1.56	2.48	-			<	2.48	<	2.48	<	2.48							<	2.48	<	2.48		
C13-C14	1.56	2.48	-			<	2.48	<	2.48	<	2.48							<	2.48	<	2.48		
C15-C16	1.56	2.48	-			<	2.48	<	2.48	<	2.48							<	2.48	<	2.48		
C17-C18	1.56	2.48	-			<	2.48	<	2.48	<	2.48							<	2.48	<	2.48		
C19-C20	1.56	2.48	-			<	2.48	<	2.48	<	2.48							<	2.48	<	2.48		
C21-C22	1.56	2.48	-			<	2.48	<	2.48	<	2.48							<	2.48	<	2.48		
C23-C24	1.56	2.48	-			<	2.48	<	2.48	<	2.48							<	2.48	<	2.48		
C25-C27	1.56	2.48	-			<	2.48	<	2.48	<	2.48							<	2.48	<	2.48		
C28-C33	1.56	2.48	-				8.35		5.39		4.77								5.94	<	2.48		
C34-C40	1.56	2.48	-				3.8		2.57		2.85								2.72	<	2.48		
pH EPA Method 9045																							
pH					7.74		7.46		7.8		7.92		7.33		7.64		7.76						
Temperature					23.2		23.1		23.1		23.1		23.1		23		23						
EPA Method 8290 Dioxins																							
2,3,7,8-TCDD							DL= 0.336		DL= 0.334		DL= 0.313												
1,2,3,7,8-PeCDD							DL= 0.477		DL= 0.509		DL= 0.447												
1,2,3,4,7,8-HxCDD							DL= 0.460		DL= 0.512		DL= 0.454												
1,2,3,6,7,8-HxCDD							DL= 0.507		DL= 0.546		DL= 0.499												
1,2,3,7,8,9-HxCDD							DL= 0.473		DL= 0.519		DL= 0.466												
1,2,3,4,6,7,8-HpCDD							5.58		1.78		1.5												
OCDD							48.7		13		9.26												
2,3,7,8-TCDF							DL= 0.248		DL= 0.323		DL= 0.229												
1,2,3,7,8-PeCDF							DL= 0.313		DL= 0.328		DL= 0.291												
2,3,4,7,8-PeCDF							DL= 0.302		DL= 0.312		DL= 0.287												

Table 4: Summary of SCAQMD Analytical Results
Agua Mansa Commerce Park

				SW-4-5		SW-5-6"		SW-5-1		SW-5-5		SW-6-6"		SW-6-1		SW-6-5		SW-7-1		SW-7-5		SW-8-1	
				07/12/2018 11:25:00		7/12/2018 13:00:00 PM		7/12/2018 13:55:00 PM		7/12/2018 14:00:00 PM		07/12/2018 14:30:00		07/12/2018 15:15:00		07/12/2018 15:20:00		07/17/2018 09:55:00		07/17/2018 10:00:00		07/18/2018 08:20:00	
				Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Berms		Northern Berms		Raw Material Storage Bay	
Analyte	**DL**	**RL**	**SL**	<		<		<		<		<		<		<		<		<		<	
EPA Method 8290 Dioxins																							
1,2,3,4,7,8-HxCDF						DL= 0.421		DL= 0.467		DL= 0.351													
1,2,3,6,7,8-HxCDF						DL= 0.352		DL= 0.394		DL= 0.309													
2,3,4,6,7,8-HxCDF						DL= 0.349		DL= 0.432		DL= 0.329													
1,2,3,7,8,9-HxCDF						DL= 0.457		DL= 0.450		DL= 0.438													
1,2,3,4,6,7,8-HpCDF						1.14		DL= 0.475		DL= 0.624													
1,2,3,4,7,8,9-HpCDF						DL= 0.402		DL= 0.532		DL= 0.630													
OCDF						2.49		DL= 0.692		DL= 1.13													
Total TCDDs						DL= 0.336		DL= 0.334		DL= 0.313													
Total PeCDDs						DL= 0.477		DL= 0.509		DL= 0.447													
Total HxCDDs						1.71		DL= 0.546		DL= 0.499													
Total HpCDDs						12.2		3.88		3.61													
Total TCDFs						DL= 0.248		DL= 0.323		DL= 0.229													
Total PeCDFs						DL= 0.313		DL= 0.328		DL= 0.291													
Total HxCDFs						0.825		DL= 0.450		DL= 0.438													
Total HpCDFs						2.38		DL= 0.532		DL= 0.630													
ES 2,3,7,8-TCDD						102		108		99													
ES 1,2,3,7,8-PeCDD						107		102		74.2													
ES 1,2,3,4,7,8-HxCDD						80.6		101		88.4													
ES 1,2,3,6,7,8-HxCDD						73.3		70.3		88.8													
ES 1,2,3,7,8,9-HxCDD																							
ES 1,2,3,4,6,7,8-HpCDD						69.9		82.4		72.8													
ES OCDD						54.3		59.7		49.6													
ES 2,3,7,8-TCDF						106		106		98.3													
ES 1,2,3,7,8-PeCDF						93.4		94.8		70.7													
ES 2,3,4,7,8-PeCDF						99		88.5		67.5													
ES 1,2,3,4,7,8-HxCDF						70.4		87.3		84													
ES 1,2,3,6,7,8-HxCDF						83.3		105		98													
ES 2,3,4,6,7,8-HxCDF						81.5		94.2		90.2													
ES 1,2,3,7,8,9-HxCDF						75.5		96.7		87.3													
ES 1,2,3,4,6,7,8-HpCDF						60.1		74.1		65.1													
ES 1,2,3,4,7,8,9-HpCDF						69.7		81.5		76.9													
ES OCDF																							
SS 37Cl-2378-TCDD						109		115		100													
SS 12347-PeCDD																							
SS 12346-PeCDF																							
SS 123469-HxCDF																							
SS 1234689-HpCDF																							
AS 1368-TCDD																							
AS 1368-TCDF																							
ITEF TEQ (ND=0; EMPC=0)																							
ITEF TEQ (ND=0; EMPC=EMPC)																							
ITEF TEQ (ND=DL/2; EMPC=0)																							
ITEF TEQ (ND=DL/2; EMPC=EMPC)																							
ITEF TEQ (ND=DL; EMPC=EMPC)																							
WHO-2005 TEQ (ND=0; EMPC=0)						0.0826		0.0217		0.0178													
WHO-2005 TEQ (ND=0; EMPC=EMPC)																							
WHO-2005 TEQ (ND=DL/2; EMPC=0)																							
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)																							
WHO-2005 TEQ (ND=DL; EMPC=EMPC)																							

Table 4: Summary of SCAQMD Analytical Results
Agua Mansa Commerce Park

				SW-8-1-other	SW-8-5	SW-9-1	SW-9-5	SW-10-1	SW-10-5	SW-10-5-White	SW-11-1	SW-11-5	SW-12-1	SW-12-5
				07/18/2018 08:15:00	07/18/2018 08:15:00	07/17/2018 14:30:00	07/17/2018 14:35:00	07/17/2018 11:55:00	07/17/2018 12:00:00	07/17/2018 12:00:00	07/13/2018 10:20:00	07/13/2018 10:25:00	07/13/2018 14:00:00	07/13/2018 14:00:00
				Raw Material Storage Bay	Raw Material Storage Bay	Raw Material Storage Bay	Raw Material Storage Bay	Raw Material Storage Bay	Raw Material Storage Bay	Raw Material Storage Bay	East of Former Fleet Truck Parking	East of Former Fleet Truck Parking	6,000,000 Gallon Bunker C Fuel Oil UST	6,000,000 Gallon Bunker C Fuel Oil UST
Analyte	**DL**	**RL**	**SL**											
Method 6010 CAM 16 Metals														
Antimony	0.37	3	-	4.92	8.52	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Arsenic	0.36	1	4.2	13.6	6.91	3.7	1.28	2.44	5.08	25.6	< 1	5.02	10.1	9.18
Barium	0.23	1	-	131	48.8	35.5	31.4	38.3	49	96.3	40.6	38.9	74.9	52.1
Beryllium	0.17	0.5	210	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cadmium	0.21	0.5	7.3	4.44	0.96	0.62	< 0.5	< 0.5	< 0.5	13.1	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	0.13	1	170000	15.2	13.2	13	11.2	12.5	11.1	15.8	12.5	14.1	21.6	17.1
Cobalt	0.19	0.5	-	5.82	5.85	5.06	5.27	5.2	5.46	2.73	5.31	6.09	8.08	7.1
Copper	0.31	1	-	27.2	16.2	10.8	8.6	12.3	8.85	16.6	9.69	10.4	17.2	10.6
Lead	0.32	1	320	69.2	53.1	17.9	3.36	19.7	15.1	183	11.1	5.76	16.5	5.88
Molybdenum	0.13	1	-	< 1	< 1	< 1	< 1	< 1	< 1	2.29	< 1	< 1	2.7	1.42
Nickel	0.2	1.5	3100	12.8	8.48	8.23	8.22	7.97	8.23	5.76	8.03	8.58	15.9	10.5
Selenium	0.72	3	-	8.6	5.01	6.5	3.46	< 3	< 3	14.8	12	6.06	< 3	< 3
Silver	0.13	0.5	1500	< 0.5	< 0.5	< 0.5	< 0.5	< 3	< 0.5	0.76	< 0.5	< 0.5	< 0.5	< 0.5
Thallium	0.42	3	-	3.27	< 3	< 3	< 3	< 3	3.18	< 3	< 3	< 3	< 3	< 3
Vanadium	0.37	0.5	1000	34.7	23.5	21.4	21.5	22.2	23.5	19.2	26	26.4	33.5	30.2
Zinc	0.28	5	-	75.4	40.5	37.6	28.7	30.4	31.7	145	31.8	32.5	43.3	45.4
EPA 7199 Hexavalent Chromium														
Hexavalent Chromium	0.2	0.4	6.3	5.29	< 0.4	0.705	< 0.4	0.49	< 0.4	2.41	< 0.4	< 0.4	< 0.4	< 0.4
EPA Method 7471A Mercury														
Mercury	0.02	0.14	4.4	0.16	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
PCBs EPA Method 8082														
PCB-1016	0.03	0.05	-			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB-1221	0.14	0.05	-			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB-1232	0.10	0.05	-			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB-1242	0.14	0.05	-			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB-1248	0.19	0.05	-			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB-1254	0.20	0.05	-			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB-1260	0.07	0.05	-			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB-1262	0.17	0.05	-			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
PCB-1268	0.09	0.05	-			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
TPH Carbon Chain C7-C40 EPA Method 8015B (M)														
C7-C8	1.56	2.48	-			< 2.48	< 2.48	< 1	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48
C9-C10	1.56	2.48	-			< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48
C11-C12	1.56	2.48	-			< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48
C13-C14	1.56	2.48	-			< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48
C15-C16	1.56	2.48	-			< 2.48	< 2.48	6.83	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48
C17-C18	1.56	2.48	-			< 2.48	3.32	16.5	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48
C19-C20	1.56	2.48	-			< 2.48	5.99	21.4	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48
C21-C22	1.56	2.48	-			< 2.48	10.8	28.4	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48	< 2.48
C23-C24	1.56	2.48	-			< 2.48	18.9	39.5	< 2.48	< 2.48	< 2.48	< 2.48	6.13	< 2.48
C25-C27	1.56	2.48	-			< 2.48	13.1	28.5	< 2.48	< 2.48	< 2.48	< 2.48	5.42	< 2.48
C28-C33	1.56	2.48	-			< 2.48	60.2	162	7.86	4.86	8.95	4.18	40.2	4.94
C34-C40	1.56	2.48	-			< 2.48	25.8	91.3	4.31	< 2.48	4.55	3.28	33.5	2.65
pH EPA Method 9045														
pH											8.18	8.18	7.96	8.42
Temperature											23.5	23.4	23.1	23.1
EPA Method 8290 Dioxins														
2,3,7,8-TCDD														
1,2,3,7,8-PeCDD														
1,2,3,4,7,8-HxCDD														
1,2,3,6,7,8-HxCDD														
1,2,3,7,8,9-HxCDD														
1,2,3,4,6,7,8-HpCDD														
OCDD														
2,3,7,8-TCDF														
1,2,3,7,8-PeCDF														
2,3,4,7,8-PeCDF														

Table 4: Summary of SCAQMD Analytical Results
Agua Mansa Commerce Park

				SW-8-1-other		SW-8-5		SW-9-1		SW-9-5		SW-10-1		SW-10-5		SW-10-5-White		SW-11-1		SW-11-5		SW-12-1		SW-12-5	
				07/18/2018 08:15:00		07/18/2018 08:15:00		07/17/2018 14:30:00		07/17/2018 14:35:00		07/17/2018 11:55:00		07/17/2018 12:00:00		07/17/2018 12:00:00		07/13/2018 10:20:00		07/13/2018 10:25:00		07/13/2018 14:00:00		07/13/2018 14:00:00	
				Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		East of Former Fleet Truck Parking		East of Former Fleet Truck Parking		6,000,000 Gallon Bunker C Fuel Oil UST		6,000,000 Gallon Bunker C Fuel Oil UST	
Analyte	**DL**	**RL**	**SL**	<		<		<		<		<		<		<		<		<		<		<	
EPA Method 8290 Dioxins																									
1,2,3,4,7,8-HxCDF																									
1,2,3,6,7,8-HxCDF																									
2,3,4,6,7,8-HxCDF																									
1,2,3,7,8,9-HxCDF																									
1,2,3,4,6,7,8-HpCDF																									
1,2,3,4,7,8,9-HpCDF																									
OCDF																									
Total TCDDs																									
Total PeCDDs																									
Total HxCDDs																									
Total HpCDDs																									
Total TCDFs																									
Total PeCDFs																									
Total HxCDFs																									
Total HpCDFs																									
ES 2,3,7,8-TCDD																									
ES 1,2,3,7,8-PeCDD																									
ES 1,2,3,4,7,8-HxCDD																									
ES 1,2,3,6,7,8-HxCDD																									
ES 1,2,3,7,8,9-HxCDD																									
ES 1,2,3,4,6,7,8-HpCDD																									
ES OCDD																									
ES 2,3,7,8-TCDF																									
ES 1,2,3,7,8-PeCDF																									
ES 2,3,4,7,8-PeCDF																									
ES 1,2,3,4,7,8-HxCDF																									
ES 1,2,3,6,7,8-HxCDF																									
ES 2,3,4,6,7,8-HxCDF																									
ES 1,2,3,7,8,9-HxCDF																									
ES 1,2,3,4,6,7,8-HpCDF																									
ES 1,2,3,4,7,8,9-HpCDF																									
ES OCDF																									
SS 37Cl-2378-TCDD																									
SS 12347-PeCDD																									
SS 12346-PeCDF																									
SS 123469-HxCDF																									
SS 1234689-HpCDF																									
AS 1368-TCDD																									
AS 1368-TCDF																									
ITEF TEQ (ND=0; EMPC=0)																									
ITEF TEQ (ND=0; EMPC=EMPC)																									
ITEF TEQ (ND=DL/2; EMPC=0)																									
ITEF TEQ (ND=DL/2; EMPC=EMPC)																									
ITEF TEQ (ND=DL; EMPC=EMPC)																									
WHO-2005 TEQ (ND=0; EMPC=0)																									
WHO-2005 TEQ (ND=0; EMPC=EMPC)																									
WHO-2005 TEQ (ND=DL/2; EMPC=0)																									
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)																									
WHO-2005 TEQ (ND=DL; EMPC=EMPC)																									

Table 4: Summary of SCAQMD Analytical Results
Agua Mansa Commerce Park

				SW-13-1		SW-13-1-White		SW-13-5		SW-13-5-White		SW-14-1		SW-14-5		SW-15-1-brn		SW-15-1		SW-15-1		SW-15-5		SW-15-5-white	
				07/17/2018 13:00:00		07/17/2018 13:05:00		07/17/2018 13:05:00		07/17/2018 13:00:00		07/17/2018 15:35:00		07/17/2018 15:40:00		07/18/2018 09:05:00		07/18/2018 09:10:00		07/18/2018 09:10:00		07/18/2018 09:10:00		07/18/2018 09:15:00	
					Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay
Analyte	**DL**	**RL**	**SL**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
Method 6010 CAM 16 Metals																									
Antimony	0.37	3	-		4.01	<	3	<	3		5.86	<	3		3.35		5.78	<	3				3.76		4.28
Arsenic	0.36	1	4.2		3.71		32.1		1.41		68.1		3.66		4.57		7.97		9				3.24		18.8
Barium	0.23	1	-		72.7		85.4		32.6		78.3		46.2		43.6		41.6		114				27.5		99.3
Beryllium	0.17	0.5	210	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5
Cadmium	0.21	0.5	7.3		0.61		11.4	<	0.5		28.9	<	0.5	<	0.5		0.52		3.78			<	0.5		9.63
Chromium	0.13	1	170000		10.9		12.1		8.63		11.4		15.9		15.3		14.2		17.4				9.57		12.8
Cobalt	0.19	0.5	-		3.2		4.07		3.84		2.1		6.59		6.74		5.99		4.74				4.79		4.09
Copper	0.31	1	-		12.9		21.8		7.39		18.3		13.4		8.89		10.2		24.1				10.6		20.1
Lead	0.32	1	320		19.4		125		46		514		8.67		5.31		17.9		51.2				10.9		104
Molybdenum	0.13	1	-	<	1	<	1	<	1		1.64	<	1	<	1	<	1	<	1			<	1	<	1
Nickel	0.2	1.5	3100		5.62		5.58		5.93		2.99		10.3		10.9		8.64		6.2				6.23		16.9
Selenium	0.72	3	-		9.33		17		6.51		16.1		6.54		5.95		6.97		14.4				4.56		19.8
Silver	0.13	0.5	1500	<	0.5	<	0.5	<	0.5		4.53	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5
Thallium	0.42	3	-	<	3	<	3	<	3	<	3	<	3	<	3	<	3	<	3			<	3	<	3
Vanadium	0.37	0.5	1000		15.2		17		20.1		10.8		30.3		29.2		25.3		24.4				19.9		29.9
Zinc	0.28	5	-		32.2		138		27.9		380		29.7		26.4		34.7		53.6				24.6		87
EPA 7199 Hexavalent Chromium																									
Hexavalent Chromium	0.2	0.4	6.3		1.7		2.12	<	0.4		1.73	<	0.4	<	0.4		0.542		2.63			<	0.4		1.6
EPA Method 7471A Mercury																									
Mercury	0.02	0.14	4.4	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14			<	0.14	<	0.14
PCBs EPA Method 8082																									
PCB-1016	0.03	0.05	-													<	0.05	<	0.05			<	0.05	<	0.05
PCB-1221	0.14	0.05	-													<	0.05	<	0.05			<	0.05	<	0.05
PCB-1232	0.10	0.05	-													<	0.05	<	0.05			<	0.05	<	0.05
PCB-1242	0.14	0.05	-													<	0.05	<	0.05			<	0.05	<	0.05
PCB-1248	0.19	0.05	-													<	0.05	<	0.05			<	0.05	<	0.05
PCB-1254	0.20	0.05	-													<	0.05	<	0.05			<	0.05	<	0.05
PCB-1260	0.07	0.05	-													<	0.05	<	0.05			<	0.05	<	0.05
PCB-1262	0.17	0.05	-													<	0.05	<	0.05			<	0.05	<	0.05
PCB-1268	0.09	0.05	-													<	0.05	<	0.05			<	0.05	<	0.05
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																									
C7-C8	1.56	2.48	-													<	2.48	<	2.48			<	2.48	<	2.48
C9-C10	1.56	2.48	-													<	2.48	<	2.48			<	2.48	<	2.48
C11-C12	1.56	2.48	-													<	2.48	<	2.48			<	2.48	<	2.48
C13-C14	1.56	2.48	-													<	2.48		4.36			<	2.48	<	2.48
C15-C16	1.56	2.48	-													<	2.48		11.3			<	2.48	<	2.48
C17-C18	1.56	2.48	-														6.81		13			<	2.48	<	2.48
C19-C20	1.56	2.48	-														17.5		27.4			<	2.48		5.02
C21-C22	1.56	2.48	-														20.8		31.4			<	2.48		5.07
C23-C24	1.56	2.48	-														32.9		61.1			<	2.48		9.67
C25-C27	1.56	2.48	-														21.7		50.5			<	2.48		6.47
C28-C33	1.56	2.48	-														195				314		3.83		43.3
C34-C40	1.56	2.48	-														96.6		160			<	2.48		20.6
pH EPA Method 9045																									
pH																									
Temperature																									
EPA Method 8290 Dioxins																									
2,3,7,8-TCDD																									
1,2,3,7,8-PeCDD																									
1,2,3,4,7,8-HxCDD																									
1,2,3,6,7,8-HxCDD																									
1,2,3,7,8,9-HxCDD																									
1,2,3,4,6,7,8-HpCDD																									
OCDD																									
2,3,7,8-TCDF																									
1,2,3,7,8-PeCDF																									
2,3,4,7,8-PeCDF																									

Table 4: Summary of SCAQMD Analytical Results
Agua Mansa Commerce Park

				SW-13-1		SW-13-1-White		SW-13-5		SW-13-5-White		SW-14-1		SW-14-5		SW-15-1-brn		SW-15-1		SW-15-1		SW-15-5		SW-15-5-white	
				07/17/2018 13:00:00		07/17/2018 13:05:00		07/17/2018 13:05:00		07/17/2018 13:00:00		07/17/2018 15:35:00		07/17/2018 15:40:00		07/18/2018 09:05:00		07/18/2018 09:10:00		07/18/2018 09:10:00		07/18/2018 09:10:00		07/18/2018 09:15:00	
					Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay
Analyte	**DL**	**RL**	**SL**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
EPA Method 8290 Dioxins																									
1,2,3,4,7,8-HxCDF																									
1,2,3,6,7,8-HxCDF																									
2,3,4,6,7,8-HxCDF																									
1,2,3,7,8,9-HxCDF																									
1,2,3,4,6,7,8-HpCDF																									
1,2,3,4,7,8,9-HpCDF																									
OCDF																									
Total TCDDs																									
Total PeCDDs																									
Total HxCDDs																									
Total HpCDDs																									
Total TCDFs																									
Total PeCDFs																									
Total HxCDFs																									
Total HpCDFs																									
ES 2,3,7,8-TCDD																									
ES 1,2,3,7,8-PeCDD																									
ES 1,2,3,4,7,8-HxCDD																									
ES 1,2,3,6,7,8-HxCDD																									
ES 1,2,3,7,8,9-HxCDD																									
ES 1,2,3,4,6,7,8-HpCDD																									
ES OCDD																									
ES 2,3,7,8-TCDF																									
ES 1,2,3,7,8-PeCDF																									
ES 2,3,4,7,8-PeCDF																									
ES 1,2,3,4,7,8-HxCDF																									
ES 1,2,3,6,7,8-HxCDF																									
ES 2,3,4,6,7,8-HxCDF																									
ES 1,2,3,7,8,9-HxCDF																									
ES 1,2,3,4,6,7,8-HpCDF																									
ES 1,2,3,4,7,8,9-HpCDF																									
ES OCDF																									
SS 37Cl-2378-TCDD																									
SS 12347-PeCDD																									
SS 12346-PeCDF																									
SS 123469-HxCDF																									
SS 1234689-HpCDF																									
AS 1368-TCDD																									
AS 1368-TCDF																									
ITEF TEQ (ND=0; EMPC=0)																									
ITEF TEQ (ND=0; EMPC=EMPC)																									
ITEF TEQ (ND=DL/2; EMPC=0)																									
ITEF TEQ (ND=DL/2; EMPC=EMPC)																									
ITEF TEQ (ND=DL; EMPC=EMPC)																									
WHO-2005 TEQ (ND=0; EMPC=0)																									
WHO-2005 TEQ (ND=0; EMPC=EMPC)																									
WHO-2005 TEQ (ND=DL/2; EMPC=0)																									
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)																									
WHO-2005 TEQ (ND=DL; EMPC=EMPC)																									

Table 4: Summary of SCAQMD Analytical Results
Agua Mansa Commerce Park

				SW-16-1		SW-16-5		SW-17-1		SW-17-5		SW-19-1		SW-19-5		SW-20-1		SW-20-5	
				07/17/2018 08:35:00		07/17/2018 08:40:00		07/13/2018 15:55:00		07/13/2018 16:00:00		07/16/2018 16:25:00		07/16/2018 16:30:00		07/13/2018 12:20:00		07/13/2018 12:25:00	
					East Berm		East Berm		Former Diesel UST 10,000 Gallons		Former Diesel UST 10,000 Gallons		Northwest of Wet Weather Quarry		Northwest of Wet Weather Quarry		Former Material Yard		Former Material Yard
Analyte	**DL**	**RL**	**SL**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
Method 6010 CAM 16 Metals																			
Antimony	0.37	3	-	<	3	<	3	<	3	<	3		10.4	<	3	<	3	<	3
Arsenic	0.36	1	4.2		3.04		8.55		3.15		4.25		5.03		5.1		7.01		6.58
Barium	0.23	1	-		61.4		65.5		35.1		38		68.4		63.5		51.5		32.9
Beryllium	0.17	0.5	210	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3		0.83		1.37	<	0.5	<	0.5	<	0.5		6.04	<	0.5	<	0.5
Chromium	0.13	1	170000		26.3		26.8		10.5		12.6		18.9		25		13.9		10.6
Cobalt	0.19	0.5	-		8.72		8.8		4.48		5.72		6.25		5.44		6.64		5.58
Copper	0.31	1	-		17.7		19		9.17		7.81		15.1		12.4		9.88		10.5
Lead	0.32	1	320		30.6		30.7		5.88		2.92		33.4		118		5.89		6.64
Molybdenum	0.13	1	-	<	1	<	1		2.48	<	1	<	1	<	1	<	1	<	1
Nickel	0.2	1.5	3100		16.4		16.2		7.98		9.45		12.1		11.9		8.28		6.42
Selenium	0.72	3	-		13.9		9.61	<	3	<	3		8.21		10.8		3.48		5.88
Silver	0.13	0.5	1500	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	<	3	<	3	<	3	<	3	<	3	<	3	<	3	<	3
Vanadium	0.37	0.5	1000		32.1		34.4		18.1		22.4		26.4		24.8		27		23.1
Zinc	0.28	5	-		40.9		37.5		24.7		23.6		47.7		38.4		38		29.8
EPA 7199 Hexavalent Chromium																			
Hexavalent Chromium	0.2	0.4	6.3		0.533		1.47	<	0.4	<	0.4	<	0.4		1.87	<	0.4	<	0.4
EPA Method 7471A Mercury																			
Mercury	0.02	0.14	4.4	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																			
PCB-1016	0.03	0.05	-	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1221	0.14	0.05	-	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1232	0.10	0.05	-	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1242	0.14	0.05	-	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1248	0.19	0.05	-	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1254	0.20	0.05	-	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1260	0.07	0.05	-	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1262	0.17	0.05	-	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1268	0.09	0.05	-	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																			
C7-C8	1.56	2.48	-	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C9-C10	1.56	2.48	-	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C11-C12	1.56	2.48	-	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C13-C14	1.56	2.48	-	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C15-C16	1.56	2.48	-	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C17-C18	1.56	2.48	-	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C19-C20	1.56	2.48	-	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C21-C22	1.56	2.48	-	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48		3.23	<	2.48	<	2.48
C23-C24	1.56	2.48	-	<	2.48	<	2.48		7.6	<	2.48	<	2.48		6.93	<	2.48	<	2.48
C25-C27	1.56	2.48	-	<	2.48	<	2.48		6.28	<	2.48	<	2.48		5.73	<	2.48	<	2.48
C28-C33	1.56	2.48	-		5.14		2.98		64.9		6.09		29.2		42.2	<	2.48	<	2.48
C34-C40	1.56	2.48	-		2.56	<	2.48		65.4		5.3		13.4		31.9	<	2.48	<	2.48
pH EPA Method 9045																			
pH									8.63		9.12						7.83		7.74
Temperature									23.3		23.4						23.5		23.3
EPA Method 8290 Dioxins																			
2,3,7,8-TCDD																			
1,2,3,7,8-PeCDD																			
1,2,3,4,7,8-HxCDD																			
1,2,3,6,7,8-HxCDD																			
1,2,3,7,8,9-HxCDD																			
1,2,3,4,6,7,8-HpCDD																			
OCDD																			
2,3,7,8-TCDF																			
1,2,3,7,8-PeCDF																			
2,3,4,7,8-PeCDF																			

Table 4: Summary of SCAQMD Analytical Results
Agua Mansa Commerce Park

				SW-16-1		SW-16-5		SW-17-1		SW-17-5		SW-19-1		SW-19-5		SW-20-1		SW-20-5	
				07/17/2018 08:35:00		07/17/2018 08:40:00		07/13/2018 15:55:00		07/13/2018 16:00:00		07/16/2018 16:25:00		07/16/2018 16:30:00		07/13/2018 12:20:00		07/13/2018 12:25:00	
					East Berm		East Berm		Former Diesel UST 10,000 Gallons		Former Diesel UST 10,000 Gallons		Northwest of Wet Weather Quarry		Northwest of Wet Weather Quarry		Former Material Yard		Former Material Yard
Analyte	**DL**	**RL**	**SL**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
EPA Method 8290 Dioxins																			
1,2,3,4,7,8-HxCDF																			
1,2,3,6,7,8-HxCDF																			
2,3,4,6,7,8-HxCDF																			
1,2,3,7,8,9-HxCDF																			
1,2,3,4,6,7,8-HpCDF																			
1,2,3,4,7,8,9-HpCDF																			
OCDF																			
Total TCDDs																			
Total PeCDDs																			
Total HxCDDs																			
Total HpCDDs																			
Total TCDFs																			
Total PeCDFs																			
Total HxCDFs																			
Total HpCDFs																			
ES 2,3,7,8-TCDD																			
ES 1,2,3,7,8-PeCDD																			
ES 1,2,3,4,7,8-HxCDD																			
ES 1,2,3,6,7,8-HxCDD																			
ES 1,2,3,7,8,9-HxCDD																			
ES 1,2,3,4,6,7,8-HpCDD																			
ES OCDD																			
ES 2,3,7,8-TCDF																			
ES 1,2,3,7,8-PeCDF																			
ES 2,3,4,7,8-PeCDF																			
ES 1,2,3,4,7,8-HxCDF																			
ES 1,2,3,6,7,8-HxCDF																			
ES 2,3,4,6,7,8-HxCDF																			
ES 1,2,3,7,8,9-HxCDF																			
ES 1,2,3,4,6,7,8-HpCDF																			
ES 1,2,3,4,7,8,9-HpCDF																			
ES OCDF																			
SS 37Cl-2378-TCDD																			
SS 12347-PeCDD																			
SS 12346-PeCDF																			
SS 123469-HxCDF																			
SS 1234689-HpCDF																			
AS 1368-TCDD																			
AS 1368-TCDF																			
ITEF TEQ (ND=0; EMPC=0)																			
ITEF TEQ (ND=0; EMPC=EMPC)																			
ITEF TEQ (ND=DL/2; EMPC=0)																			
ITEF TEQ (ND=DL/2; EMPC=EMPC)																			
ITEF TEQ (ND=DL; EMPC=EMPC)																			
WHO-2005 TEQ (ND=0; EMPC=0)																			
WHO-2005 TEQ (ND=0; EMPC=EMPC)																			
WHO-2005 TEQ (ND=DL/2; EMPC=0)																			
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)																			
WHO-2005 TEQ (ND=DL; EMPC=EMPC)																			

Table 5: Summary of Site-Specific Background Analytical Results
Agua Mansa Commerce Park

					SAMPLENAME	SW-4-1	SW-4-5	SW-5-1	SW-5-5	SW-6-1	SW-6-5	VL-LT-3-1	VL-LT-3-5
					SAMPDATE	07/12/2018 11:20:00	07/12/2018 11:25:00	7/12/2018 13:55:00 PM	7/12/2018 14:00:00 PM	07/12/2018 15:15:00	07/12/2018 15:20:00	07/12/2018 16:25:00	07/12/2018 16:30:00
					LABSAMPID	P807005-05	P807005-06	P807005-08	P807005-09	P807005-11	P807005-12	P807005-14	P807005-15
					Feature	Northern Parcel	Northern Parcel	Northern Parcel	Northern Parcel	Northern Parcel	Northern Parcel	Background Analysis	Background Analysis
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**								
Method 6010 CAM 16 Metals													
Antimony	0.37	3	-	4.54	mg/Kg	4.02	< 3	7.31	4.91	< 3	6.22	3.76	7.03
Arsenic	0.36	1	4.2	4.60	mg/Kg	2.26	2.88	< 1	5.6	3.37	4.15	8.94	8.66
Barium	0.23	1	-	44.51	mg/Kg	44.1	29	30.7	35.7	49.4	39.6	77.9	58.2
Beryllium	0.17	0.5	210	0.50	mg/Kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chromium	0.13	1	170000	13.95	mg/Kg	13.4	9.96	10.7	12.6	15	12.9	20.6	18.9
Cobalt	0.19	0.5	-	6.33	mg/Kg	5.53	4.8	4.89	5.66	6.42	5.72	8.77	8.61
Copper	0.31	1	-	11.84	mg/Kg	11.1	8.64	8.24	9.4	13.7	11.8	17.8	15
Lead	0.32	1	320	9.43	mg/Kg	12.2	4.73	8.85	7.52	7.98	4.3	18.8	6.79
Molybdenum	0.13	1	-	1.00	mg/Kg	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Nickel	0.2	1.5	3100	10.03	mg/Kg	9.22	7.6	7.3	9.13	9.85	10.2	14.7	14.6
Selenium	0.72	3	-	7.11	mg/Kg	9.27	< 3	10.4	7.83	10.3	< 3	6.62	6.99
Silver	0.13	0.5	1500	0.50	mg/Kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Thallium	0.42	3	-	3.00	mg/Kg	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Vanadium	0.37	0.5	1000	24.05	mg/Kg	23.6	18.8	20.3	23.4	25.8	23.2	31.1	26.1
Zinc	0.28	5	-	36.75	mg/Kg	42	26.7	30.7	30.7	35.8	27.4	56.1	38.5
EPA 7199 Hexavalent Chromium													
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
EPA Method 7471A Mercury													
Mercury	0.02	0.14	4.4	0.14	mg/Kg	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
PAHs EPA Method 8082													
PCB-1016	0.03	0.05	-	0.05	mg/Kg			< 0.05	< 0.05				
PCB-1221	0.14	0.05	-	0.05	mg/Kg			< 0.05	< 0.05				
PCB-1232	0.10	0.05	-	0.05	mg/Kg			< 0.05	< 0.05				
PCB-1242	0.14	0.05	-	0.05	mg/Kg			< 0.05	< 0.05				
PCB-1248	0.19	0.05	-	0.05	mg/Kg			< 0.05	< 0.05				
PCB-1254	0.20	0.05	-	0.05	mg/Kg			< 0.05	< 0.05				
PCB-1260	0.07	0.05	-	0.05	mg/Kg			< 0.05	< 0.05				
PCB-1262	0.17	0.05	-	0.05	mg/Kg			< 0.05	< 0.05				
PCB-1268	0.09	0.05	-	0.05	mg/Kg			< 0.05	< 0.05				
TPH Carbon Chain C7-C40 EPA Method 8015B (M)													
C7-C8	1.56	2.48	-	2.48	mg/kg			< 2.48	< 2.48				
C9-C10	1.56	2.48	-	2.48	mg/kg			< 2.48	< 2.48				
C11-C12	1.56	2.48	-	2.48	mg/kg			< 2.48	< 2.48				
C13-C14	1.56	2.48	-	2.48	mg/kg			< 2.48	< 2.48				
C15-C16	1.56	2.48	-	2.48	mg/kg			< 2.48	< 2.48				
C17-C18	1.56	2.48	-	2.48	mg/kg			< 2.48	< 2.48				
C19-C20	1.56	2.48	-	2.48	mg/kg			< 2.48	< 2.48				
C21-C22	1.56	2.48	-	2.48	mg/kg			< 2.48	< 2.48				
C23-C24	1.56	2.48	-	2.48	mg/kg			< 2.48	< 2.48				
C25-C27	1.56	2.48	-	2.48	mg/kg			< 2.48	< 2.48				
C28-C33	1.56	2.48	-	5.08	mg/kg			5.39	4.77				
C34-C40	1.56	2.48	-	2.71	mg/kg			2.57	2.85				
pH EPA Method 9045													
pH				7.55	pH Units	7.57	7.74	7.8	7.92	7.64	7.76	7.47	7.52
Temperature				23.02	°C	23.1	23.2	23.1	23.1	23	23	23.1	23

Table 5: Summary of Site-Specific Background Analytical Results
Agua Mansa Commerce Park

					SAMPLENAME	VL-LT-2-1		VL-LT-2-5		
					SAMPDATE	07/12/2018 09:35:00		07/12/2018 09:45:00		
					LABSAMPID	P807005-02		P807005-03		
					Feature	Background Analysis		Background Analysis		
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**Background Averages**
Method 6010 CAM 16 Metals										
Antimony	0.37	3	-	4.54	mg/Kg	<	3		3.17	4.542
Arsenic	0.36	1	4.2	4.60	mg/Kg		4.81		4.35	4.602
Barium	0.23	1	-	44.51	mg/Kg		46.7		33.8	44.51
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5	<	0.5	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		13.6		11.8	13.946
Cobalt	0.19	0.5	-	6.33	mg/Kg		6.38		6.51	6.329
Copper	0.31	1	-	11.84	mg/Kg		12.2		10.5	11.838
Lead	0.32	1	320	9.43	mg/Kg		14.3		8.83	9.43
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		9.12		8.62	10.034
Selenium	0.72	3	-	7.11	mg/Kg		5.82		7.83	7.106
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		25.3		22.9	24.05
Zinc	0.28	5	-	36.75	mg/Kg		44.2		35.4	36.75
EPA 7199 Hexavalent Chromium										
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	<	0.4	<	0.4	0.4
EPA Method 7471A Mercury										
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	0.14
PAHs EPA Method 8082										
PCB-1016	0.03	0.05	-	0.05	mg/Kg					0.05
PCB-1221	0.14	0.05	-	0.05	mg/Kg					0.05
PCB-1232	0.10	0.05	-	0.05	mg/Kg					0.05
PCB-1242	0.14	0.05	-	0.05	mg/Kg					0.05
PCB-1248	0.19	0.05	-	0.05	mg/Kg					0.05
PCB-1254	0.20	0.05	-	0.05	mg/Kg					0.05
PCB-1260	0.07	0.05	-	0.05	mg/Kg					0.05
PCB-1262	0.17	0.05	-	0.05	mg/Kg					0.05
PCB-1268	0.09	0.05	-	0.05	mg/Kg					0.05
TPH Carbon Chain C7-C40 EPA Method 8015B (M)										
C7-C8	1.56	2.48	-	2.48	mg/kg					2.48
C9-C10	1.56	2.48	-	2.48	mg/kg					2.48
C11-C12	1.56	2.48	-	2.48	mg/kg					2.48
C13-C14	1.56	2.48	-	2.48	mg/kg					2.48
C15-C16	1.56	2.48	-	2.48	mg/kg					2.48
C17-C18	1.56	2.48	-	2.48	mg/kg					2.48
C19-C20	1.56	2.48	-	2.48	mg/kg					2.48
C21-C22	1.56	2.48	-	2.48	mg/kg					2.48
C23-C24	1.56	2.48	-	2.48	mg/kg					2.48
C25-C27	1.56	2.48	-	2.48	mg/kg					2.48
C28-C33	1.56	2.48	-	5.08	mg/kg					5.08
C34-C40	1.56	2.48	-	2.71	mg/kg					2.71
pH EPA Method 9045										
pH				7.55	pH Units		7.11		6.99	7.552
Temperature				23.02	°C		22.8		22.8	23.02

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	SW-3-1		SW-3-5		SW-11-1		SW-11-5		SW-12-1		SW-12-5		SW-20-1		SW-20-5		MAP-SG-3-5		MAP-SG-3-15	
					SAMPDATE	07/13/2018 08:55:00		07/13/2018 09:00:00		07/13/2018 10:20:00		07/13/2018 10:25:00		07/13/2018 14:00:00		07/13/2018 14:00:00		07/13/2018 12:20:00		07/13/2018 12:25:00		07/11/2018 14:10:00		07/11/2018 14:25:00	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**Former Agriculture Division**		**Former Agriculture Division**		**East of Former Fleet Truck Parking**		**East of Former Fleet Truck Parking**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**Former Material Yard**		**Former Material Yard**		**Former Diesel UST 1,000 Gallons**		**Former Diesel UST 1,000 Gallons**	
					Unit	<		<		<		<		<		<		<		<		<		<	
Method 6010 CAM 16 Metals																									
Antimony	0.37	3	-	4.54	mg/Kg	<	3	<	3	<	3	<	3	<	3	<	3	<	3	<	3				
Arsenic	0.36	1	4.2	4.60	mg/Kg		3.39		2.13	<	1		5.02		10.1		9.18		7.01		6.58				
Barium	0.23	1	-	44.51	mg/Kg		65.1		50.9		40.6		38.9		74.9		52.1		51.5		32.9				
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5				
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5				
Chromium	0.13	1	170000	13.95	mg/Kg		20.4		13.6		12.5		14.1		21.6		17.1		13.9		10.6				
Cobalt	0.19	0.5	-	6.33	mg/Kg		5.75		6.74		5.31		6.09		8.08		7.1		6.64		5.58				
Copper	0.31	1	-	11.84	mg/Kg		13.7		10.9		9.69		10.4		17.2		10.6		9.88		10.5				
Lead	0.32	1	320	9.43	mg/Kg		17.6		6.8		11.1		5.76		16.5		5.88		5.89		6.64				
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1	<	1		2.7		1.42	<	1	<	1				
Nickel	0.2	1.5	3100	10.03	mg/Kg		7.64		7.54		8.03		8.58		15.9		10.5		8.28		6.42				
Selenium	0.72	3	-	7.11	mg/Kg		5.3		6.74		12		6.06	<	3	<	3		3.48		5.88				
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5				
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	<	3	<	3	<	3	<	3	<	3	<	3				
Vanadium	0.37	0.5	1000	24.05	mg/Kg		27.3		28.5		26		26.4		33.5		30.2		27		23.1				
Zinc	0.28	5	-	36.75	mg/Kg		57.7		33.7		31.8		32.5		43.3		45.4		38		29.8				
EPA 7199 Hexavalent Chromium																									
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4				
EPA Method 7471A Mercury																									
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14				
PCBs EPA Method 8082																									
PCB-1016	0.03	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05				
PCB-1221	0.14	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05				
PCB-1232	0.10	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05				
PCB-1242	0.14	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05				
PCB-1248	0.19	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05				
PCB-1254	0.20	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05				
PCB-1260	0.07	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05				
PCB-1262	0.17	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05				
PCB-1268	0.09	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05				
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																									
C7-C8	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C9-C10	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C11-C12	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C13-C14	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C15-C16	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C17-C18	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C19-C20	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C21-C22	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C23-C24	1.56	2.48	-	2.48	mg/kg		2.93	<	2.48	<	2.48	<	2.48		6.13	<	2.48	<	2.48	<	2.48	<	2.48		2.55
C25-C27	1.56	2.48	-	2.48	mg/kg		3.18	<	2.48	<	2.48	<	2.48		5.42	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C28-C33	1.56	2.48	-	5.08	mg/kg		33		4.29		8.95		4.18		40.2		4.94	<	2.48	<	2.48	<	2.48		17.3
C34-C40	1.56	2.48	-	2.71	mg/kg		59.9		4.09		4.55		3.28		33.5		2.65	<	2.48	<	2.48	<	2.48		14.9
pH EPA Method 9045																									
pH				7.55	pH Units		8.29		8.46		8.18		8.18		7.96		8.42		7.83		7.74				
Temperature				23.02	°C		23.4		23.3		23.5		23.4		23.1		23.1		23.5		23.3				
VOC 8260 Full by EPA Method 5035																									
Acetone	2	16	-		µg/Kg																	<	16	<	16
Bromoform	0.33	0.81	3000000		µg/Kg																	<	0.81	<	0.81
Bromomethane	0.92	4	-		µg/Kg																	<	4	<	4
2-Butanone (Methyl Ethyl Ketone - MEK)	0.56	16	-		µg/Kg																	<	16	<	16
n-Butylbenzene	0.25	0.81	18000000		µg/Kg																	<	0.81	<	0.81
Carbon Disulfide	0.18	4	-		µg/Kg																	<	4	<	4
Carbon Tetrachloride	0.21	0.81	-		µg/Kg																	<	0.81	<	0.81
Chlorobenzene	0.086	0.81	-		µg/Kg																	<	0.81	<	0.81
Chloroethane	0.35	4	-		µg/Kg																	<	4	<	4
Acetonitrile	2.7	40	-		µg/Kg																	<	40	<	40
Chloroform	0.16	0.81	-		µg/Kg																	<	0.81	<	0.81
Chloromethane	0.29	4	-		µg/Kg																	<	4	<	4
Chloroprene	0.26	0.81	-		µg/Kg																	<	0.81	<	0.81
2-Chlorotoluene	0.15	0.81	2500000		µg/Kg																	<	0.81	<	0.81

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	SW-3-1		SW-3-5		SW-11-1		SW-11-5		SW-12-1		SW-12-5		SW-20-1		SW-20-5		MAP-SG-3-5		MAP-SG-3-15	
					SAMPDATE	07/13/2018 08:55:00		07/13/2018 09:00:00		07/13/2018 10:20:00		07/13/2018 10:25:00		07/13/2018 14:00:00		07/13/2018 14:00:00		07/13/2018 12:20:00		07/13/2018 12:25:00		07/11/2018 14:10:00		07/11/2018 14:25:00	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**Former Agriculture Division**		**Former Agriculture Division**		**East of Former Fleet Truck Parking**		**East of Former Fleet Truck Parking**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**Former Material Yard**		**Former Material Yard**		**Former Diesel UST 1,000 Gallons**		**Former Diesel UST 1,000 Gallons**	
					Unit	<		<		<		<		<		<		<		<		<		<	
VOC 8260 Full by EPA Method 5035																									
4-Chlorotoluene	0.17	0.81	2300000		µg/Kg																	<	0.81	<	0.81
1,2-Dibromo-3-Chloropropane	0.76	0.81	-		µg/Kg																	<	0.81	<	0.81
Dibromochloromethane	0.31	0.81	-		µg/Kg																	<	0.81	<	0.81
1,2-Dibromoethane (EDB)	0.26	0.81	-		µg/Kg																	<	0.81	<	0.81
Dibromomethane	0.26	0.81	-		µg/Kg																	<	0.81	<	0.81
cis-1,4-dichloro-2-butene	0.36	0.81	-		µg/Kg																	<	0.81	<	0.81
t-1,4-Dichloro-2-Butene	0.27	0.81	-		µg/Kg																	<	0.81	<	0.81
1,2-Dichlorobenzene	0.15	0.81	-		µg/Kg																	<	0.81	<	0.81
1,3-Dichlorobenzene	0.13	0.81	100000		µg/Kg																	<	0.81	<	0.81
1,4-Dichlorobenzene	0.18	0.81	2900000		µg/Kg																	<	0.81	<	0.81
Dichlorodifluoromethane (Freon 12)	0.16	0.81	-		µg/Kg																	<	0.81	<	0.81
1,1-Dichloroethane	0.13	0.81	7100000		µg/Kg																	<	0.81	<	0.81
1,2-Dichloroethane	0.26	0.81	-		µg/Kg																	<	0.81	<	0.81
1,1-Dichloroethene	0.18	0.81	-		µg/Kg																	<	0.81	<	0.81
c-1,2-Dichloroethene	0.21	0.81	-		µg/Kg																	<	0.81	<	0.81
c-1,3-Dichloropropene	0.23	0.81	-		µg/Kg																	<	0.81	<	0.81
t-1,2-Dichloroethene	0.21	0.81	-		µg/Kg																	<	0.81	<	0.81
1,2-Dichloropropane	0.23	0.81	-		µg/Kg																	<	0.81	<	0.81
1,3-Dichloropropane	0.18	0.81	2200000		µg/Kg																	<	0.81	<	0.81
2,2-Dichloropropane	0.17	0.81	-		µg/Kg																	<	0.81	<	0.81
1,1-Dichloropropene	0.28	0.81	-		µg/Kg																	<	0.81	<	0.81
t-1,3-Dichloropropene	0.16	0.81	310000		µg/Kg																	<	0.81	<	0.81
Diethyl Ether	0.22	4	-		µg/Kg																	<	4	<	4
Diisopropyl Ether (DIPE)	0.11	0.81	-		µg/Kg																	<	0.81	<	0.81
Allyl Chloride	0.31	0.81	-		µg/Kg																	<	0.81	<	0.81
Ethylbenzene	0.11	0.81	-		µg/Kg																	<	0.81	<	0.81
Ethyl Methacrylate	0.15	0.81	-		µg/Kg																	<	0.81	<	0.81
Ethyl-tert-butyl-ether (ETBE)	0.12	0.81	-		µg/Kg																	<	0.81	<	0.81
Hexachloro-1,3-Butadiene	0.35	0.81	160000		µg/Kg																	<	0.81	<	0.81
2-Hexanone	0.78	4	-		µg/Kg																	<	4	<	4
Benzene	0.13	0.81	46000		µg/Kg																	<	0.81	<	0.81
Isopropylbenzene	0.16	0.81	-		µg/Kg																	<	0.81	<	0.81
p-Isopropyltoluene	0.23	0.81	-		µg/Kg																	<	0.81	<	0.81
Methacrylonitrile	0.33	4	-		µg/Kg																	<	4	<	4
Methylene Chloride	0.95	8.1	3200000		µg/Kg																	<	8.1	<	8.1
Methyl Methacrylate	0.28	0.81	-		µg/Kg																	<	0.81	<	0.81
4-Methyl-2-Pentanone	0.19	16	-		µg/Kg																	<	16	<	16
Methyl-t-Butyl Ether (MTBE)	0.13	0.81	-		µg/Kg																	<	0.81	<	0.81
Naphthalene	0.35	8.1	-		µg/Kg																	<	8.1	<	8.1
Bromobenzene	0.16	0.81	-		µg/Kg																	<	0.81	<	0.81
Propionitrile	1.3	16	-		µg/Kg																	<	16	<	16
n-Propylbenzene	0.17	0.81	-		µg/Kg																	<	0.81	<	0.81
sec-Butylbenzene	0.21	0.81	12000000		µg/Kg																	<	0.81	<	0.81
Styrene	0.15	0.81	-		µg/Kg																	<	0.81	<	0.81
Tert-amyl-Methyl Ether (TAME)	0.22	0.81	-		µg/Kg																	<	0.81	<	0.81
Tert-Butyl Alcohol (TBA)	3	20	-		µg/Kg																	<	20	<	20
tert-Butylbenzene	0.26	0.81	12000000		µg/Kg																	<	0.81	<	0.81
1,1,1,2-Tetrachloroethane	0.34	0.81	2700000		µg/Kg																	<	0.81	<	0.81
1,1,2,2-Tetrachloroethane	0.14	0.81	4300000		µg/Kg																	<	0.81	<	0.81
Bromochloromethane	0.33	0.81	-		µg/Kg																	<	0.81	<	0.81
Tetrachloroethene	0.27	0.81	390000		µg/Kg																	<	0.81	<	0.81
Tetrahydrofuran	0.59	6.4	-		µg/Kg																	<	6.4	<	6.4
Toluene	0.14	0.81	5300000		µg/Kg																	<	0.81	<	0.81
1,2,3-Trichlorobenzene	0.24	0.81	300000		µg/Kg																	<	0.81	<	0.81
1,2,4-Trichlorobenzene	0.25	0.81	-		µg/Kg																	<	0.81	<	0.81
1,1,1-Trichloroethane	0.22	0.81	7200000		µg/Kg																	<	0.81	<	0.81
1,1,2-Trichloroethane	0.31	0.81	-		µg/Kg																	<	0.81	<	0.81
Trichloroethene	0.16	0.81	-		µg/Kg																	<	0.81	<	0.81
Trichlorofluoromethane	0.28	0.81	5400000		µg/Kg																	<	0.81	<	0.81
Bromodichloromethane	0.21	0.81	1300000		µg/Kg																	<	0.81	<	0.81
1,2,3-Trichloropropane	0.43	0.81	21000		µg/Kg																	<	0.81	<	0.81

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	SW-3-1		SW-3-5		SW-11-1		SW-11-5		SW-12-1		SW-12-5		SW-20-1		SW-20-5		MAP-SG-3-5		MAP-SG-3-15	
					SAMPDATE	07/13/2018 08:55:00		07/13/2018 09:00:00		07/13/2018 10:20:00		07/13/2018 10:25:00		07/13/2018 14:00:00		07/13/2018 14:00:00		07/13/2018 12:20:00		07/13/2018 12:25:00		07/11/2018 14:10:00		07/11/2018 14:25:00	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**Former Agriculture Division**		**Former Agriculture Division**		**East of Former Fleet Truck Parking**		**East of Former Fleet Truck Parking**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**Former Material Yard**		**Former Material Yard**		**Former Diesel UST 1,000 Gallons**		**Former Diesel UST 1,000 Gallons**	
					Unit	<		<		<		<		<		<		<		<		<		<	
VOC 8260 Full by EPA Method 5035																									
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.25	0.81	-		µg/Kg																	<	0.81	<	0.81
1,2,4-Trimethylbenzene	0.17	0.81	-		µg/Kg																	<	0.81	<	0.81
1,3,5-Trimethylbenzene	0.18	0.81	-		µg/Kg																	<	0.81	<	0.81
Vinyl Chloride	0.19	0.81	370000		µg/Kg																	<	0.81	<	0.81
o-Xylene	0.13	0.81	-		µg/Kg																	<	0.81	<	0.81
p/m-Xylene	0.3	1.6	-		µg/Kg																	<	1.6	<	1.6
Total Xylenes	0.4	2.4	-		µg/Kg																	<	2.4	<	2.4
PAHs Method 8270CM_PAH_SIM																									
1-Methylnaphthalene	3.7	10	-		ug/Kg																				
2-Methylnaphthalene	3.8	10	-		ug/Kg																				
Acenaphthene	1.4	10	-		ug/Kg																				
Acenaphthylene	3.3	10	-		ug/Kg																				
Anthracene	1.2	10	-		ug/Kg																				
Benz(a)anthracene	1.1	10	-		ug/Kg																				
Benzo(a)pyrene	1.8	10	-		ug/Kg																				
Benzo(b)fluoranthene	1.7	10	-		ug/Kg																				
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg																				
Benzo(k)fluoranthene	1.7	10	-		ug/Kg																				
Chrysene	0.83	10	-		ug/Kg																				
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg																				
Fluoranthene	0.84	10	-		ug/Kg																				
Fluorene	1.3	10	-		ug/Kg																				
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg																				
Naphthalene	4	10	-		ug/Kg																				
Phenanthrene	1.4	10	-		ug/Kg																				
Pyrene	0.78	10	-		ug/Kg																				
SVOCs EPA Method 8270C																									
1,2,4-Trichlorobenzene	22	250	-		ug/Kg																				
1,2-Dichlorobenzene	37	250	-		ug/Kg																				
1,3-Dichlorobenzene	50	250	-		ug/Kg																				
1,4-Dichlorobenzene	31	250	-		ug/Kg																				
1-Methylnaphthalene	21	250	-		ug/Kg																				
2,4,5-Trichlorophenol	43	250	-		ug/Kg																				
2,4,6-Trichlorophenol	35	250	820000		ug/Kg																				
2,4-Dichlorophenol	23	250	-		ug/Kg																				
2,4-Dimethylphenol	100	250	-		ug/Kg																				
2,4-Dinitrophenol	23	1200	-		ug/Kg																				
2,4-Dinitrotoluene	14	250	-		ug/Kg																				
2,6-Dinitrotoluene	33	250	-		ug/Kg																				
2-Chloronaphthalene	15	250	-		ug/Kg																				
2-Chlorophenol	15	250	-		ug/Kg																				
2-Methyl-4,6-dinitrophenol	21	250	-		ug/Kg																				
2-Methylnaphthalene	21	250	-		ug/Kg																				
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg																				
2-Nitroaniline	31	250	-		ug/Kg																				
2-Nitrophenol	16	250	-		ug/Kg																				
3 and 4-Methylphenol (m and p-Cresc	19	400	-		ug/Kg																				
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg																				
3-Nitroaniline	37	250	-		ug/Kg																				
4-Bromophenyl phenyl ether	24	250	-		ug/Kg																				
4-Chloro-3-methylphenol	18	250	-		ug/Kg																				
4-Chloroaniline	73	250	-		ug/Kg																				
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg																				
4-Nitroaniline	148	250	-		ug/Kg																				
4-Nitrophenol	117	250	-		ug/Kg																				
SVOCs EPA Method 8270C																									
Acenaphthene	25	250	-		ug/Kg																				
Acenaphthylene	20	250	-		ug/Kg																				
Aniline	101	250	-		ug/Kg																				
Anthracene	23	250	-		ug/Kg																				
Azobenzene	67	250	-		ug/Kg																				

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	SW-3-1		SW-3-5		SW-11-1		SW-11-5		SW-12-1		SW-12-5		SW-20-1		SW-20-5		MAP-SG-3-5		MAP-SG-3-15	
					SAMPDATE	07/13/2018 08:55:00		07/13/2018 09:00:00		07/13/2018 10:20:00		07/13/2018 10:25:00		07/13/2018 14:00:00		07/13/2018 14:00:00		07/13/2018 12:20:00		07/13/2018 12:25:00		07/11/2018 14:10:00		07/11/2018 14:25:00	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**Former Agriculture Division**		**Former Agriculture Division**		**East of Former Fleet Truck Parking**		**East of Former Fleet Truck Parking**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**Former Material Yard**		**Former Material Yard**		**Former Diesel UST 1,000 Gallons**		**Former Diesel UST 1,000 Gallons**	
					Unit	<		<		<		<		<		<		<		<		<		<	
SVOCs EPA Method 8270C																									
Benz(a)anthracene	22	250	-		ug/Kg																				
Benzidine	23	1200	2500000		ug/Kg																				
Benzo(a)pyrene	25	250	-		ug/Kg																				
Benzo(b)fluoranthene	27	250	-		ug/Kg																				
Benzo(g,h,i)perylene	29	250	-		ug/Kg																				
Benzo(k)fluoranthene	32	250	-		ug/Kg																				
Benzoic acid	36	1200	-		ug/Kg																				
Benzyl alcohol	36	250	-		ug/Kg																				
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg																				
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg																				
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg																				
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg																				
Butylbenzyl Phthalate	44	250	-		ug/Kg																				
Carbazole	23	250	-		ug/Kg																				
Chrysene	20	250	-		ug/Kg																				
Dibenz(a,h)anthracene	21	250	-		ug/Kg																				
Dibenzofuran	14	250	-		ug/Kg																				
Diethyl phthalate	24	250	-		ug/Kg																				
Dimethyl phthalate	22	250	-		ug/Kg																				
Di-n-butyl phthalate	67	250	-		ug/Kg																				
Di-n-octyl phthalate	23	250	-		ug/Kg																				
Fluoranthene	21	250	-		ug/Kg																				
Fluorene	27	250	-		ug/Kg																				
Hexachlorobenzene	15	250	-		ug/Kg																				
Hexachlorobutadiene	39	250	160000		ug/Kg																				
Hexachlorocyclopentadiene	14	1200	-		ug/Kg																				
Hexachloroethane	43	250	-		ug/Kg																				
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg																				
Isophorone	25	250	-		ug/Kg																				
Naphthalene	25	250	-		ug/Kg																				
Nitrobenzene	21	1200	-		ug/Kg																				
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg																				
N-Nitrosodi-n-propylamine (NDPA)	26	250	-		ug/Kg																				
N-Nitrosodiphenylamine	24	250	-		ug/Kg																				
Pentachlorophenol	55	1200	-		ug/Kg																				
Phenanthrene	22	250	-		ug/Kg																				
Phenol	26	250	-		ug/Kg																				
Pyrene	23	250	-		ug/Kg																				
Pyridine	21	250	-		ug/Kg																				
Total Cresol	400	400	-		ug/Kg																				
Pesticides EPA Method 8081A/EPA 3545																									
4,4'-DDD	0.67	5																							
4,4'-DDE	0.57	5																							
4,4'-DDT	0.95	5																							
a-BHC	0.2	5																							
Aldrin	0.34	5																							
b-BHC	1.2	5																							
Chlordane (technical)	12	50																							
Dieldrin	0.63	5																							
Endosulfan I	0.28	5																							
Endosulfan II	0.8	5																							
Endosulfan sulfate	1.7	5																							
Endrin	0.62	5																							
Endrin aldehyde	0.9	5																							
Endrin Ketone	1.2	5																							
Heptachlor	0.44	5																							
Heptachlor epoxide	0.27	5																							
Lindane (Gamma-BHC)	0.3	5																							
Toxaphene	12	100																							

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	MAP-SB-1-15		MAP-SB-1-20		MAP-SB-2-1		MAP-SB-2-5		MAP-SB-2-10		MAP-SB-2-30		MAP-SB-2-50		MAP-SB-3-1		MAP-SB-3-5	
					SAMPDATE	07/18/2018 10:25:00		07/18/2018 10:30:00		07/16/2018 12:30:00		07/16/2018 12:45:00		07/16/2018 13:00:00		07/18/2018 08:50:00		07/18/2018 09:15:00		07/13/2018 15:10:00		07/13/2018 12:45:00	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**Former Waste Oil UST 550 Gallons**		**Former Waste Oil UST 550 Gallons**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**	
					Unit	<		<		<		<		<		<		<		<		<	
Method 6010 CAM 16 Metals																							
Antimony	0.37	3	-	4.54	mg/Kg									<	3		5.3	<	3				
Arsenic	0.36	1	4.2	4.60	mg/Kg										4.72		6.75		4.04				
Barium	0.23	1	-	44.51	mg/Kg										57.1		47		107				
Beryllium	0.17	0.5	210	0.50	mg/Kg									<	0.5	<	0.5	<	0.5				
Cadmium	0.21	0.5	7.3	0.50	mg/Kg									<	0.5	<	0.5	<	0.5				
Chromium	0.13	1	170000	13.95	mg/Kg										17.4		18.6		38.2				
Cobalt	0.19	0.5	-	6.33	mg/Kg										8.1		8.59		9.95				
Copper	0.31	1	-	11.84	mg/Kg										13.3		14.4		13.2				
Lead	0.32	1	320	9.43	mg/Kg										8.91		5.5		6.28				
Molybdenum	0.13	1	-	1.00	mg/Kg									<	1	<	1	<	1				
Nickel	0.2	1.5	3100	10.03	mg/Kg										14		14.1		13.8				
Selenium	0.72	3	-	7.11	mg/Kg										4.43	<	3	<	3				
Silver	0.13	0.5	1500	0.50	mg/Kg									<	0.5	<	0.5	<	0.5				
Thallium	0.42	3	-	3.00	mg/Kg									<	3	<	3	<	3				
Vanadium	0.37	0.5	1000	24.05	mg/Kg										29.5		33.3		40.4				
Zinc	0.28	5	-	36.75	mg/Kg										38.4		39.4		37.3				
EPA 7199 Hexavalent Chromium																							
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg																		
EPA Method 7471A Mercury																							
Mercury	0.02	0.14	4.4	0.14	mg/Kg									<	0.14	<	0.14	<	0.14				
PCBs EPA Method 8082																							
PCB-1016	0.03	0.05	-	0.05	mg/Kg																		
PCB-1221	0.14	0.05	-	0.05	mg/Kg																		
PCB-1232	0.10	0.05	-	0.05	mg/Kg																		
PCB-1242	0.14	0.05	-	0.05	mg/Kg																		
PCB-1248	0.19	0.05	-	0.05	mg/Kg																		
PCB-1254	0.20	0.05	-	0.05	mg/Kg																		
PCB-1260	0.07	0.05	-	0.05	mg/Kg																		
PCB-1262	0.17	0.05	-	0.05	mg/Kg																		
PCB-1268	0.09	0.05	-	0.05	mg/Kg																		
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																							
C7-C8	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48	<	2.48				
C9-C10	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48	<	2.48				
C11-C12	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48	<	2.48				
C13-C14	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48	<	2.48				
C15-C16	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48	<	2.48				
C17-C18	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48	<	2.48				
C19-C20	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48		6.73	<	2.48				
C21-C22	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48		11.9	<	2.48				
C23-C24	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48		20.4	<	2.48				
C25-C27	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48		29	<	2.48				
C28-C33	1.56	2.48	-	5.08	mg/kg	<	2.48							<	2.48		134	<	2.48				
C34-C40	1.56	2.48	-	2.71	mg/kg	<	2.48							<	2.48		103	<	2.48				
pH EPA Method 9045																							
pH				7.55	pH Units										9.06		8.98		9.02				
Temperature				23.02	°C																		
VOC 8260 Full by EPA Method 5035																							
Acetone	2	16	-		µg/Kg			<	16						120	<	16	<	16				
Bromoform	0.33	0.81	3000000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Bromomethane	0.92	4	-		µg/Kg			<	4					<	4	<	4	<	4				
2-Butanone (Methyl Ethyl Ketone - MEK)	0.56	16	-		µg/Kg			<	16					<	16	<	16	<	16				
n-Butylbenzene	0.25	0.81	18000000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Carbon Disulfide	0.18	4	-		µg/Kg			<	4					<	4	<	4	<	4				
Carbon Tetrachloride	0.21	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Chlorobenzene	0.086	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Chloroethane	0.35	4	-		µg/Kg			<	4					<	4	<	4	<	4				
Acetonitrile	2.7	40	-		µg/Kg			<	40					<	40	<	40	<	40				
Chloroform	0.16	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Chloromethane	0.29	4	-		µg/Kg			<	4					<	4	<	4	<	4				
Chloroprene	0.26	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
2-Chlorotoluene	0.15	0.81	2500000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	MAP-SB-1-15		MAP-SB-1-20		MAP-SB-2-1		MAP-SB-2-5		MAP-SB-2-10		MAP-SB-2-30		MAP-SB-2-50		MAP-SB-3-1		MAP-SB-3-5	
					SAMPDATE	07/18/2018 10:25:00		07/18/2018 10:30:00		07/16/2018 12:30:00		07/16/2018 12:45:00		07/16/2018 13:00:00		07/18/2018 08:50:00		07/18/2018 09:15:00		07/13/2018 15:10:00		07/13/2018 12:45:00	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**Former Waste Oil UST 550 Gallons**		**Former Waste Oil UST 550 Gallons**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**	
					Unit	<		<		<		<		<		<		<		<		<	
VOC 8260 Full by EPA Method 5035																							
4-Chlorotoluene	0.17	0.81	2300000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,2-Dibromo-3-Chloropropane	0.76	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Dibromochloromethane	0.31	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,2-Dibromoethane (EDB)	0.26	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Dibromomethane	0.26	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
cis-1,4-dichloro-2-butene	0.36	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
t-1,4-Dichloro-2-Butene	0.27	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,2-Dichlorobenzene	0.15	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,3-Dichlorobenzene	0.13	0.81	100000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,4-Dichlorobenzene	0.18	0.81	2900000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Dichlorodifluoromethane (Freon 12)	0.16	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,1-Dichloroethane	0.13	0.81	7100000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,2-Dichloroethane	0.26	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,1-Dichloroethene	0.18	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
c-1,2-Dichloroethene	0.21	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
c-1,3-Dichloropropene	0.23	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
t-1,2-Dichloroethene	0.21	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,2-Dichloropropane	0.23	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,3-Dichloropropane	0.18	0.81	2200000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
2,2-Dichloropropane	0.17	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,1-Dichloropropene	0.28	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
t-1,3-Dichloropropene	0.16	0.81	310000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Diethyl Ether	0.22	4	-		µg/Kg			<	4					<	4	<	4	<	4				
Diisopropyl Ether (DIPE)	0.11	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Allyl Chloride	0.31	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Ethylbenzene	0.11	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Ethyl Methacrylate	0.15	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Ethyl-tert-butyl-ether (ETBE)	0.12	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Hexachloro-1,3-Butadiene	0.35	0.81	160000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
2-Hexanone	0.78	4	-		µg/Kg			<	4					<	4	<	4	<	4				
Benzene	0.13	0.81	46000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Isopropylbenzene	0.16	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
p-Isopropyltoluene	0.23	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Methacrylonitrile	0.33	4	-		µg/Kg			<	4					<	4	<	4	<	4				
Methylene Chloride	0.95	8.1	3200000		µg/Kg			<	8.1					<	8.1	<	8.1	<	8.1				
Methyl Methacrylate	0.28	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
4-Methyl-2-Pentanone	0.19	16	-		µg/Kg			<	16					<	16	<	16	<	16				
Methyl-t-Butyl Ether (MTBE)	0.13	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Naphthalene	0.35	8.1	-		µg/Kg			<	8.1					<	8.1	<	8.1	<	8.1				
Bromobenzene	0.16	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Propionitrile	1.3	16	-		µg/Kg			<	16					<	16	<	16	<	16				
n-Propylbenzene	0.17	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
sec-Butylbenzene	0.21	0.81	12000000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Styrene	0.15	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Tert-amyl-Methyl Ether (TAME)	0.22	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Tert-Butyl Alcohol (TBA)	3	20	-		µg/Kg			<	20					<	20	<	20	<	20				
tert-Butylbenzene	0.26	0.81	12000000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,1,1,2-Tetrachloroethane	0.34	0.81	2700000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,1,2,2-Tetrachloroethane	0.14	0.81	4300000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Bromochloromethane	0.33	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Tetrachloroethene	0.27	0.81	390000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Tetrahydrofuran	0.59	6.4	-		µg/Kg			<	6.4					<	6.4	<	6.4	<	6.4				
Toluene	0.14	0.81	5300000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,2,3-Trichlorobenzene	0.24	0.81	300000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,2,4-Trichlorobenzene	0.25	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,1,1-Trichloroethane	0.22	0.81	7200000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,1,2-Trichloroethane	0.31	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Trichloroethene	0.16	0.81	-		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Trichlorofluoromethane	0.28	0.81	5400000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
Bromodichloromethane	0.21	0.81	1300000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				
1,2,3-Trichloropropane	0.43	0.81	21000		µg/Kg			<	0.81					<	0.81	<	0.81	<	0.81				

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	MAP-SB-1-15	MAP-SB-1-20	MAP-SB-2-1	MAP-SB-2-5	MAP-SB-2-10	MAP-SB-2-30	MAP-SB-2-50	MAP-SB-3-1	MAP-SB-3-5
					SAMPDATE	07/18/2018 10:25:00	07/18/2018 10:30:00	07/16/2018 12:30:00	07/16/2018 12:45:00	07/16/2018 13:00:00	07/18/2018 08:50:00	07/18/2018 09:15:00	07/13/2018 15:10:00	07/13/2018 12:45:00
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**Former Waste Oil UST 550 Gallons**	**Former Waste Oil UST 550 Gallons**	**6,000,000 Gallon Bunker C Fuel Oil UST**	**6,000,000 Gallon Bunker C Fuel Oil UST**	**6,000,000 Gallon Bunker C Fuel Oil UST**	**6,000,000 Gallon Bunker C Fuel Oil UST**	**6,000,000 Gallon Bunker C Fuel Oil UST**	**6,000,000 Gallon Bunker C Fuel Oil UST**	**6,000,000 Gallon Bunker C Fuel Oil UST**
					Unit	<	<	<	<	<	<	<	<	<
VOC 8260 Full by EPA Method 5035														
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.25	0.81	-		µg/Kg		< 0.81			< 0.81	< 0.81	< 0.81		
1,2,4-Trimethylbenzene	0.17	0.81	-		µg/Kg		< 0.81			< 0.81	< 0.81	< 0.81		
1,3,5-Trimethylbenzene	0.18	0.81	-		µg/Kg		< 0.81			< 0.81	< 0.81	< 0.81		
Vinyl Chloride	0.19	0.81	370000		µg/Kg		< 0.81			< 0.81	< 0.81	< 0.81		
o-Xylene	0.13	0.81	-		µg/Kg		< 0.81			< 0.81	< 0.81	< 0.81		
p/m-Xylene	0.3	1.6	-		µg/Kg		< 1.6			< 1.6	< 1.6	< 1.6		
Total Xylenes	0.4	2.4	-		µg/Kg		< 2.4			< 2.4	< 2.4	< 2.4		
PAHs Method 8270CM_PAH_SIM														
1-Methylnaphthalene	3.7	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
2-Methylnaphthalene	3.8	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Acenaphthene	1.4	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Acenaphthylene	3.3	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Anthracene	1.2	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Benz(a)anthracene	1.1	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Benzo(a)pyrene	1.8	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Benzo(b)fluoranthene	1.7	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Benzo(k)fluoranthene	1.7	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Chrysene	0.83	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Fluoranthene	0.84	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Fluorene	1.3	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Naphthalene	4	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Phenanthrene	1.4	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
Pyrene	0.78	10	-		ug/Kg			< 10	< 10	< 10			< 10	< 10
SVOCs EPA Method 8270C														
1,2,4-Trichlorobenzene	22	250	-		ug/Kg					< 250	< 250	< 250		
1,2-Dichlorobenzene	37	250	-		ug/Kg					< 250	< 250	< 250		
1,3-Dichlorobenzene	50	250	-		ug/Kg					< 250	< 250	< 250		
1,4-Dichlorobenzene	31	250	-		ug/Kg					< 250	< 250	< 250		
1-Methylnaphthalene	21	250	-		ug/Kg					< 250	< 250	< 250		
2,4,5-Trichlorophenol	43	250	-		ug/Kg					< 250	< 250	< 250		
2,4,6-Trichlorophenol	35	250	820000		ug/Kg					< 250	< 250	< 250		
2,4-Dichlorophenol	23	250	-		ug/Kg					< 250	< 250	< 250		
2,4-Dimethylphenol	100	250	-		ug/Kg					< 250	< 250	< 250		
2,4-Dinitrophenol	23	1200	-		ug/Kg					< 1200	< 1200	< 1200		
2,4-Dinitrotoluene	14	250	-		ug/Kg					< 250	< 250	< 250		
2,6-Dinitrotoluene	33	250	-		ug/Kg					< 250	< 250	< 250		
2-Chloronaphthalene	15	250	-		ug/Kg					< 250	< 250	< 250		
2-Chlorophenol	15	250	-		ug/Kg					< 250	< 250	< 250		
2-Methyl-4,6-dinitrophenol	21	250	-		ug/Kg					< 250	< 250	< 250		
2-Methylnaphthalene	21	250	-		ug/Kg					< 250	< 250	< 250		
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg					< 250	< 250	< 250		
2-Nitroaniline	31	250	-		ug/Kg					< 250	< 250	< 250		
2-Nitrophenol	16	250	-		ug/Kg					< 250	< 250	< 250		
3 and 4-Methylphenol (m and p-Cresc	19	400	-		ug/Kg					< 400	< 400	< 400		
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg					< 1200	< 1200	< 1200		
3-Nitroaniline	37	250	-		ug/Kg					< 250	< 250	< 250		
4-Bromophenyl phenyl ether	24	250	-		ug/Kg					< 250	< 250	< 250		
4-Chloro-3-methylphenol	18	250	-		ug/Kg					< 250	< 250	< 250		
4-Chloroaniline	73	250	-		ug/Kg					< 250	< 250	< 250		
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg					< 250	< 250	< 250		
4-Nitroaniline	148	250	-		ug/Kg					< 250	< 250	< 250		
4-Nitrophenol	117	250	-		ug/Kg					< 250	< 250	< 250		
SVOCs EPA Method 8270C														
Acenaphthene	25	250	-		ug/Kg					< 250	< 250	< 250		
Acenaphthylene	20	250	-		ug/Kg					< 250	< 250	< 250		
Aniline	101	250	-		ug/Kg					< 250	< 250	< 250		
Anthracene	23	250	-		ug/Kg					< 250	< 250	< 250		
Azobenzene	67	250	-		ug/Kg					< 250	< 250	< 250		

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	MAP-SB-1-15		MAP-SB-1-20		MAP-SB-2-1		MAP-SB-2-5		MAP-SB-2-10		MAP-SB-2-30		MAP-SB-2-50		MAP-SB-3-1		MAP-SB-3-5	
					SAMPDATE	07/18/2018 10:25:00		07/18/2018 10:30:00		07/16/2018 12:30:00		07/16/2018 12:45:00		07/16/2018 13:00:00		07/18/2018 08:50:00		07/18/2018 09:15:00		07/13/2018 15:10:00		07/13/2018 12:45:00	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**Former Waste Oil UST 550 Gallons**		**Former Waste Oil UST 550 Gallons**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**	
					Unit	<		<		<		<		<		<		<		<		<	
SVOCs EPA Method 8270C																							
Benz(a)anthracene	22	250	-		ug/Kg									<	250	<	250	<	250				
Benzidine	23	1200	2500000		ug/Kg									<	1200	<	1200	<	1200				
Benzo(a)pyrene	25	250	-		ug/Kg									<	250	<	250	<	250				
Benzo(b)fluoranthene	27	250	-		ug/Kg									<	250	<	250	<	250				
Benzo(g,h,i)perylene	29	250	-		ug/Kg									<	250	<	250	<	250				
Benzo(k)fluoranthene	32	250	-		ug/Kg									<	250	<	250	<	250				
Benzoic acid	36	1200	-		ug/Kg									<	1200	<	1200	<	1200				
Benzyl alcohol	36	250	-		ug/Kg									<	250	<	250	<	250				
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg									<	250	<	250	<	250				
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg									<	1200	<	1200	<	1200				
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg									<	250	<	250	<	250				
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg									<	250	<	250	<	250				
Butylbenzyl Phthalate	44	250	-		ug/Kg									<	250	<	250	<	250				
Carbazole	23	250	-		ug/Kg									<	250	<	250	<	250				
Chrysene	20	250	-		ug/Kg									<	250	<	250	<	250				
Dibenz(a,h)anthracene	21	250	-		ug/Kg									<	250	<	250	<	250				
Dibenzofuran	14	250	-		ug/Kg									<	250	<	250	<	250				
Diethyl phthalate	24	250	-		ug/Kg									<	250	<	250	<	250				
Dimethyl phthalate	22	250	-		ug/Kg									<	250	<	250	<	250				
Di-n-butyl phthalate	67	250	-		ug/Kg									<	250	<	250	<	250				
Di-n-octyl phthalate	23	250	-		ug/Kg									<	250	<	250	<	250				
Fluoranthene	21	250	-		ug/Kg									<	250	<	250	<	250				
Fluorene	27	250	-		ug/Kg									<	250	<	250	<	250				
Hexachlorobenzene	15	250	-		ug/Kg									<	250	<	250	<	250				
Hexachlorobutadiene	39	250	160000		ug/Kg									<	250	<	250	<	250				
Hexachlorocyclopentadiene	14	1200	-		ug/Kg									<	1200	<	1200	<	1200				
Hexachloroethane	43	250	-		ug/Kg									<	250	<	250	<	250				
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg									<	250	<	250	<	250				
Isophorone	25	250	-		ug/Kg									<	250	<	250	<	250				
Naphthalene	25	250	-		ug/Kg									<	250	<	250	<	250				
Nitrobenzene	21	1200	-		ug/Kg									<	1200	<	1200	<	1200				
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg									<	250	<	250	<	250				
N-Nitrosodi-n-propylamine (NDPA)	26	250	-		ug/Kg									<	250	<	250	<	250				
N-Nitrosodiphenylamine	24	250	-		ug/Kg									<	250	<	250	<	250				
Pentachlorophenol	55	1200	-		ug/Kg									<	1200	<	1200	<	1200				
Phenanthrene	22	250	-		ug/Kg									<	250	<	250	<	250				
Phenol	26	250	-		ug/Kg									<	250	<	250	<	250				
Pyrene	23	250	-		ug/Kg									<	250	<	250	<	250				
Pyridine	21	250	-		ug/Kg									<	250	<	250	<	250				
Total Cresol	400	400	-		ug/Kg									<	400	<	400	<	400				
Pesticides EPA Method 8081A/EPA 3545																							
4,4'-DDD	0.67	5																					
4,4'-DDE	0.57	5																					
4,4'-DDT	0.95	5																					
a-BHC	0.2	5																					
Aldrin	0.34	5																					
b-BHC	1.2	5																					
Chlordane (technical)	12	50																					
Dieldrin	0.63	5																					
Endosulfan I	0.28	5																					
Endosulfan II	0.8	5																					
Endosulfan sulfate	1.7	5																					
Endrin	0.62	5																					
Endrin aldehyde	0.9	5																					
Endrin Ketone	1.2	5																					
Heptachlor	0.44	5																					
Heptachlor epoxide	0.27	5																					
Lindane (Gamma-BHC)	0.3	5																					
Toxaphene	12	100																					

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	MAP-SB-3-10		MAP-SB-3-30		MAP-SB-3-50		MAP-LT-1-1		MAP-LT-1-5		MAP-LT-1-10		MAP-LT-1-15		MAP-LT-2-1		MAP-LT-2-5	
					SAMPDATE	07/13/2018 13:00:00		07/13/2018 14:40:00		07/13/2018 14:50:00		07/20/2018 09:15:00		07/20/2018 09:25:00		07/20/2018 09:30:00		07/20/2018 09:35:00		07/20/2018 10:25:00		07/20/2018 10:27:00	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**Former Parking (Northwest)**		**Former Parking (Northwest)**		**Former Parking (Northwest)**		**Former Parking (Northwest)**		**Former Fleet Truck Parking**		**Former Fleet Truck Parking**	
					Unit	<		<		<		<		<		<		<		<		<	
Method 6010 CAM 16 Metals																							
Antimony	0.37	3	-	4.54	mg/Kg	<	3		3.89		3.49										6.02		6.13
Arsenic	0.36	1	4.2	4.60	mg/Kg		18.8		24.2		7.07										5.95		2.86
Barium	0.23	1	-	44.51	mg/Kg		85.2		140		137										42.5		23.1
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5									<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg		0.93	<	0.5	<	0.5									<	0.5	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		24.7		24		21.7										14.8		9.01
Cobalt	0.19	0.5	-	6.33	mg/Kg		11.1		13.1		11.4										7.72		5.36
Copper	0.31	1	-	11.84	mg/Kg		20		19.2		14										11.2		8.74
Lead	0.32	1	320	9.43	mg/Kg		18.6		5.8		3.55										5.81		5.2
Molybdenum	0.13	1	-	1.00	mg/Kg		2.05	<	1		1.17									<	1	<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		21.7		15		11.2										10.1		5.93
Selenium	0.72	3	-	7.11	mg/Kg	<	3	<	3	<	3									<	3		5.38
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5									<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	<	3									<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		39.4		51.1		41.1										29.5		21.2
Zinc	0.28	5	-	36.75	mg/Kg		63		63.1		43.2										38.9		26.3
EPA 7199 Hexavalent Chromium																							
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg							<	0.4	<	0.4	<	0.4			<	0.4	<	0.4
EPA Method 7471A Mercury																							
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14									<	0.14	<	0.14
PCBs EPA Method 8082																							
PCB-1016	0.03	0.05	-	0.05	mg/Kg																		
PCB-1221	0.14	0.05	-	0.05	mg/Kg																		
PCB-1232	0.10	0.05	-	0.05	mg/Kg																		
PCB-1242	0.14	0.05	-	0.05	mg/Kg																		
PCB-1248	0.19	0.05	-	0.05	mg/Kg																		
PCB-1254	0.20	0.05	-	0.05	mg/Kg																		
PCB-1260	0.07	0.05	-	0.05	mg/Kg																		
PCB-1262	0.17	0.05	-	0.05	mg/Kg																		
PCB-1268	0.09	0.05	-	0.05	mg/Kg																		
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																							
C7-C8	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			<	2.48
C9-C10	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			<	2.48
C11-C12	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			<	2.48
C13-C14	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			<	2.48
C15-C16	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			<	2.48
C17-C18	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			<	2.48
C19-C20	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			<	2.48
C21-C22	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			<	2.48
C23-C24	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			<	2.48
C25-C27	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			<	2.48
C28-C33	1.56	2.48	-	5.08	mg/kg		2.98	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48				13.7
C34-C40	1.56	2.48	-	2.71	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48				10.4
pH EPA Method 9045																							
pH				7.55	pH Units																6.18		8.73
Temperature				23.02	°C																		
VOC 8260 Full by EPA Method 5035																							
Acetone	2	16	-		µg/Kg	<	16	<	16	<	16												
Bromoform	0.33	0.81	3000000		µg/Kg	<	0.81	<	0.81	<	0.81												
Bromomethane	0.92	4	-		µg/Kg	<	4	<	4	<	4												
2-Butanone (Methyl Ethyl Ketone - MEK)	0.56	16	-		µg/Kg	<	16	<	16	<	16												
n-Butylbenzene	0.25	0.81	18000000		µg/Kg	<	0.81	<	0.81	<	0.81												
Carbon Disulfide	0.18	4	-		µg/Kg	<	4	<	4	<	4												
Carbon Tetrachloride	0.21	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Chlorobenzene	0.086	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Chloroethane	0.35	4	-		µg/Kg	<	4	<	4	<	4												
Acetonitrile	2.7	40	-		µg/Kg	<	40	<	40	<	40												
Chloroform	0.16	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Chloromethane	0.29	4	-		µg/Kg	<	4	<	4	<	4												
Chloroprene	0.26	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
2-Chlorotoluene	0.15	0.81	2500000		µg/Kg	<	0.81	<	0.81	<	0.81												

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	MAP-SB-3-10		MAP-SB-3-30		MAP-SB-3-50		MAP-LT-1-1		MAP-LT-1-5		MAP-LT-1-10		MAP-LT-1-15		MAP-LT-2-1		MAP-LT-2-5	
					SAMPDATE	07/13/2018 13:00:00		07/13/2018 14:40:00		07/13/2018 14:50:00		07/20/2018 09:15:00		07/20/2018 09:25:00		07/20/2018 09:30:00		07/20/2018 09:35:00		07/20/2018 10:25:00		07/20/2018 10:27:00	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**Former Parking (Northwest)**		**Former Parking (Northwest)**		**Former Parking (Northwest)**		**Former Parking (Northwest)**		**Former Fleet Truck Parking**		**Former Fleet Truck Parking**	
					Unit	<		<		<		<		<		<		<		<		<	
VOC 8260 Full by EPA Method 5035																							
4-Chlorotoluene	0.17	0.81	2300000		µg/Kg	<	0.81	<	0.81	<	0.81												
1,2-Dibromo-3-Chloropropane	0.76	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Dibromochloromethane	0.31	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
1,2-Dibromoethane (EDB)	0.26	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Dibromomethane	0.26	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
cis-1,4-dichloro-2-butene	0.36	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
t-1,4-Dichloro-2-Butene	0.27	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
1,2-Dichlorobenzene	0.15	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
1,3-Dichlorobenzene	0.13	0.81	100000		µg/Kg	<	0.81	<	0.81	<	0.81												
1,4-Dichlorobenzene	0.18	0.81	2900000		µg/Kg	<	0.81	<	0.81	<	0.81												
Dichlorodifluoromethane (Freon 12)	0.16	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
1,1-Dichloroethane	0.13	0.81	7100000		µg/Kg	<	0.81	<	0.81	<	0.81												
1,2-Dichloroethane	0.26	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
1,1-Dichloroethene	0.18	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
c-1,2-Dichloroethene	0.21	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
c-1,3-Dichloropropene	0.23	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
t-1,2-Dichloroethene	0.21	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
1,2-Dichloropropane	0.23	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
1,3-Dichloropropane	0.18	0.81	2200000		µg/Kg	<	0.81	<	0.81	<	0.81												
2,2-Dichloropropane	0.17	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
1,1-Dichloropropene	0.28	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
t-1,3-Dichloropropene	0.16	0.81	310000		µg/Kg	<	0.81	<	0.81	<	0.81												
Diethyl Ether	0.22	4	-		µg/Kg	<	4	<	4	<	4												
Diisopropyl Ether (DIPE)	0.11	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Allyl Chloride	0.31	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Ethylbenzene	0.11	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Ethyl Methacrylate	0.15	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Ethyl-tert-butyl-ether (ETBE)	0.12	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Hexachloro-1,3-Butadiene	0.35	0.81	160000		µg/Kg	<	0.81	<	0.81	<	0.81												
2-Hexanone	0.78	4	-		µg/Kg	<	4	<	4	<	4												
Benzene	0.13	0.81	46000		µg/Kg	<	0.81	<	0.81	<	0.81												
Isopropylbenzene	0.16	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
p-Isopropyltoluene	0.23	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Methacrylonitrile	0.33	4	-		µg/Kg	<	4	<	4	<	4												
Methylene Chloride	0.95	8.1	3200000		µg/Kg	<	8.1	<	8.1	<	8.1												
Methyl Methacrylate	0.28	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
4-Methyl-2-Pentanone	0.19	16	-		µg/Kg	<	16	<	16	<	16												
Methyl-t-Butyl Ether (MTBE)	0.13	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Naphthalene	0.35	8.1	-		µg/Kg	<	8.1	<	8.1	<	8.1												
Bromobenzene	0.16	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Propionitrile	1.3	16	-		µg/Kg	<	16	<	16	<	16												
n-Propylbenzene	0.17	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
sec-Butylbenzene	0.21	0.81	12000000		µg/Kg	<	0.81	<	0.81	<	0.81												
Styrene	0.15	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Tert-amyl-Methyl Ether (TAME)	0.22	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Tert-Butyl Alcohol (TBA)	3	20	-		µg/Kg	<	20	<	20	<	20												
tert-Butylbenzene	0.26	0.81	12000000		µg/Kg	<	0.81	<	0.81	<	0.81												
1,1,1,2-Tetrachloroethane	0.34	0.81	2700000		µg/Kg	<	0.81	<	0.81	<	0.81												
1,1,2,2-Tetrachloroethane	0.14	0.81	4300000		µg/Kg	<	0.81	<	0.81	<	0.81												
Bromochloromethane	0.33	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Tetrachloroethene	0.27	0.81	390000		µg/Kg	<	0.81	<	0.81	<	0.81												
Tetrahydrofuran	0.59	6.4	-		µg/Kg	<	6.4	<	6.4	<	6.4												
Toluene	0.14	0.81	5300000		µg/Kg	<	0.81	<	0.81	<	0.81												
1,2,3-Trichlorobenzene	0.24	0.81	300000		µg/Kg	<	0.81	<	0.81	<	0.81												
1,2,4-Trichlorobenzene	0.25	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
1,1,1-Trichloroethane	0.22	0.81	7200000		µg/Kg	<	0.81	<	0.81	<	0.81												
1,1,2-Trichloroethane	0.31	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Trichloroethene	0.16	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Trichlorofluoromethane	0.28	0.81	5400000		µg/Kg	<	0.81	<	0.81	<	0.81												
Bromodichloromethane	0.21	0.81	1300000		µg/Kg	<	0.81	<	0.81	<	0.81												
1,2,3-Trichloropropane	0.43	0.81	21000		µg/Kg	<	0.81	<	0.81	<	0.81												

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	MAP-SB-3-10		MAP-SB-3-30		MAP-SB-3-50		MAP-LT-1-1		MAP-LT-1-5		MAP-LT-1-10		MAP-LT-1-15		MAP-LT-2-1		MAP-LT-2-5	
					SAMPDATE	07/13/2018 13:00:00		07/13/2018 14:40:00		07/13/2018 14:50:00		07/20/2018 09:15:00		07/20/2018 09:25:00		07/20/2018 09:30:00		07/20/2018 09:35:00		07/20/2018 10:25:00		07/20/2018 10:27:00	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**6,000,000 Gallon Bunker C Fuel Oil UST**		**Former Parking (Northwest)**		**Former Parking (Northwest)**		**Former Parking (Northwest)**		**Former Parking (Northwest)**		**Former Fleet Truck Parking**		**Former Fleet Truck Parking**	
					Unit	<		<		<		<		<		<		<		<		<	
VOC 8260 Full by EPA Method 5035																							
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.25	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
1,2,4-Trimethylbenzene	0.17	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
1,3,5-Trimethylbenzene	0.18	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
Vinyl Chloride	0.19	0.81	370000		µg/Kg	<	0.81	<	0.81	<	0.81												
o-Xylene	0.13	0.81	-		µg/Kg	<	0.81	<	0.81	<	0.81												
p/m-Xylene	0.3	1.6	-		µg/Kg	<	1.6	<	1.6	<	1.6												
Total Xylenes	0.4	2.4	-		µg/Kg	<	2.4	<	2.4	<	2.4												
PAHs Method 8270CM_PAH_SIM																							
1-Methylnaphthalene	3.7	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
2-Methylnaphthalene	3.8	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Acenaphthene	1.4	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Acenaphthylene	3.3	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Anthracene	1.2	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Benz(a)anthracene	1.1	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Benzo(a)pyrene	1.8	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Benzo(b)fluoranthene	1.7	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Benzo(k)fluoranthene	1.7	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Chrysene	0.83	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Fluoranthene	0.84	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Fluorene	1.3	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Naphthalene	4	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Phenanthrene	1.4	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
Pyrene	0.78	10	-		ug/Kg	<	10	<	10	<	10									<	10	<	10
SVOCs EPA Method 8270C																							
1,2,4-Trichlorobenzene	22	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
1,2-Dichlorobenzene	37	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
1,3-Dichlorobenzene	50	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
1,4-Dichlorobenzene	31	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
1-Methylnaphthalene	21	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
2,4,5-Trichlorophenol	43	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
2,4,6-Trichlorophenol	35	250	820000		ug/Kg	<	250	<	250	<	250									<	250	<	250
2,4-Dichlorophenol	23	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
2,4-Dimethylphenol	100	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
2,4-Dinitrophenol	23	1200	-		ug/Kg	<	1200	<	1200	<	1200									<	1200	<	1200
2,4-Dinitrotoluene	14	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
2,6-Dinitrotoluene	33	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
2-Chloronaphthalene	15	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
2-Chlorophenol	15	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
2-Methyl-4,6-dinitrophenol	21	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
2-Methylnaphthalene	21	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
2-Nitroaniline	31	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
2-Nitrophenol	16	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
3 and 4-Methylphenol (m and p-Cresc	19	400	-		ug/Kg	<	400	<	400	<	400									<	400	<	400
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg	<	1200	<	1200	<	1200									<	1200	<	1200
3-Nitroaniline	37	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
4-Bromophenyl phenyl ether	24	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
4-Chloro-3-methylphenol	18	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
4-Chloroaniline	73	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
4-Nitroaniline	148	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
4-Nitrophenol	117	250	_		ug/Kg	<	250	<	250	<	250									<	250	<	250
SVOCs EPA Method 8270C																							
Acenaphthene	25	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
Acenaphthylene	20	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
Aniline	101	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
Anthracene	23	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250
Azobenzene	67	250	-		ug/Kg	<	250	<	250	<	250									<	250	<	250

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	MAP-SB-3-10	MAP-SB-3-30	MAP-SB-3-50	MAP-LT-1-1	MAP-LT-1-5	MAP-LT-1-10	MAP-LT-1-15	MAP-LT-2-1	MAP-LT-2-5
					SAMPDATE	07/13/2018 13:00:00	07/13/2018 14:40:00	07/13/2018 14:50:00	07/20/2018 09:15:00	07/20/2018 09:25:00	07/20/2018 09:30:00	07/20/2018 09:35:00	07/20/2018 10:25:00	07/20/2018 10:27:00
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**6,000,000 Gallon Bunker C Fuel Oil UST**	**6,000,000 Gallon Bunker C Fuel Oil UST**	**6,000,000 Gallon Bunker C Fuel Oil UST**	**Former Parking (Northwest)**	**Former Parking (Northwest)**	**Former Parking (Northwest)**	**Former Parking (Northwest)**	**Former Fleet Truck Parking**	**Former Fleet Truck Parking**
					Unit	<	<	<	<	<	<	<	<	<
SVOCs EPA Method 8270C														
Benz(a)anthracene	22	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Benzidine	23	1200	2500000		ug/Kg	< 1200	< 1200	< 1200					< 1200	< 1200
Benzo(a)pyrene	25	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Benzo(b)fluoranthene	27	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Benzo(g,h,i)perylene	29	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Benzo(k)fluoranthene	32	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Benzoic acid	36	1200	-		ug/Kg	< 1200	< 1200	< 1200					< 1200	< 1200
Benzyl alcohol	36	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg	< 1200	< 1200	< 1200					< 1200	< 1200
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Butylbenzyl Phthalate	44	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Carbazole	23	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Chrysene	20	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Dibenz(a,h)anthracene	21	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Dibenzofuran	14	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Diethyl phthalate	24	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Dimethyl phthalate	22	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Di-n-butyl phthalate	67	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Di-n-octyl phthalate	23	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Fluoranthene	21	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Fluorene	27	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Hexachlorobenzene	15	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Hexachlorobutadiene	39	250	160000		ug/Kg	< 250	< 250	< 250					< 250	< 250
Hexachlorocyclopentadiene	14	1200	-		ug/Kg	< 1200	< 1200	< 1200					< 1200	< 1200
Hexachloroethane	43	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Isophorone	25	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Naphthalene	25	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Nitrobenzene	21	1200	-		ug/Kg	< 1200	< 1200	< 1200					< 1200	< 1200
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
N-Nitrosodi-n-propylamine (NDPA)	26	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
N-Nitrosodiphenylamine	24	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Pentachlorophenol	55	1200	-		ug/Kg	< 1200	< 1200	< 1200					< 1200	< 1200
Phenanthrene	22	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Phenol	26	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Pyrene	23	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Pyridine	21	250	-		ug/Kg	< 250	< 250	< 250					< 250	< 250
Total Cresol	400	400	-		ug/Kg	< 400	< 400	< 400					< 400	< 400
Pesticides EPA Method 8081A/EPA 3545														
4,4'-DDD	0.67	5							< 5	< 5				
4,4'-DDE	0.57	5							< 5	< 5				
4,4'-DDT	0.95	5							< 5	< 5				
a-BHC	0.2	5							< 5	< 5				
Aldrin	0.34	5							< 5	< 5				
b-BHC	1.2	5							< 5	< 5				
Chlordane (technical)	12	50							< 50	< 50				
Dieldrin	0.63	5							< 5	< 5				
Endosulfan I	0.28	5							< 5	< 5				
Endosulfan II	0.8	5							< 5	< 5				
Endosulfan sulfate	1.7	5							< 5	< 5				
Endrin	0.62	5							< 5	< 5				
Endrin aldehyde	0.9	5							< 5	< 5				
Endrin Ketone	1.2	5							< 5	< 5				
Heptachlor	0.44	5							< 5	< 5				
Heptachlor epoxide	0.27	5							< 5	< 5				
Lindane (Gamma-BHC)	0.3	5							< 5	< 5				
Toxaphene	12	100							< 100	< 100				

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	MAP-LT-2-10		MAP-LT-2-15		MAP-LT-3-1		MAP-LT-3-5		MAP-LT-3-10		MAP-LT-3-15		MAP-LT-3-20		MAP-LT-4-1
					SAMPDATE	07/20/2018 10:30:00		07/20/2018 10:40:00		07/20/2018 08:20:00		07/20/2018 08:25:00		07/20/2018 08:30:00		07/20/2018 08:35:00		07/20/2018 08:45:00		07/18/2018 12:20:00
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**Former Fleet Truck Parking**		**Former Fleet Truck Parking**		**Washrack Discharge Point**		**Washrack Discharge Point**		**Washrack Discharge Point**		**Washrack Discharge Point**		**Washrack Discharge Point**		**Former Power House**
					Unit	<		<		<		<		<		<		<		<	
Method 6010 CAM 16 Metals																				
Antimony	0.37	3	-	4.54	mg/Kg		4.22				13.4	<	3		4.25					5.85
Arsenic	0.36	1	4.2	4.60	mg/Kg		8.84				7.46		4.93		3.54					7.84
Barium	0.23	1	-	44.51	mg/Kg		36.6				60.1		21.3		26.2					59.4
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5			<	0.5	<	0.5	<	0.5				<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5			<	0.5	<	0.5	<	0.5					0.76
Chromium	0.13	1	170000	13.95	mg/Kg		15.6				20.5		9.05		11.2					11.4
Cobalt	0.19	0.5	-	6.33	mg/Kg		7.7				10.3		5.5		6.41					4.97
Copper	0.31	1	-	11.84	mg/Kg		11.5				25		10.1		12.2					16
Lead	0.32	1	320	9.43	mg/Kg		6.81				7.99		4.66		5.08					43.2
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1			<	1	<	1	<	1				<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		10.5				14.8		6.88		7.91					9.85
Selenium	0.72	3	-	7.11	mg/Kg		7.12			<	3		3		3					9.94
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5			<	0.5		0.5		0.5				<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3			<	3	<	3	<	3				<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		28.9				38.1		22.2		21.9					15.3
Zinc	0.28	5	-	36.75	mg/Kg		35.7				52.5		30.3		36.2					69.3
EPA 7199 Hexavalent Chromium																				
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	<	0.4			<	0.4	<	0.4	<	0.4				<	0.4
EPA Method 7471A Mercury																				
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14			<	0.14	<	0.14	<	0.14				<	0.14
PCBs EPA Method 8082																				
PCB-1016	0.03	0.05	-	0.05	mg/Kg															
PCB-1221	0.14	0.05	-	0.05	mg/Kg															
PCB-1232	0.10	0.05	-	0.05	mg/Kg															
PCB-1242	0.14	0.05	-	0.05	mg/Kg															
PCB-1248	0.19	0.05	-	0.05	mg/Kg															
PCB-1254	0.20	0.05	-	0.05	mg/Kg															
PCB-1260	0.07	0.05	-	0.05	mg/Kg															
PCB-1262	0.17	0.05	-	0.05	mg/Kg															
PCB-1268	0.09	0.05	-	0.05	mg/Kg															
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																				
C7-C8	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			
C9-C10	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			
C11-C12	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			
C13-C14	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			
C15-C16	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			
C17-C18	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			
C19-C20	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			
C21-C22	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48			
C23-C24	1.56	2.48	-	2.48	mg/kg	<	2.48		3.3	<	2.48	<	2.48	<	2.48	<	2.48			
C25-C27	1.56	2.48	-	2.48	mg/kg	<	2.48		4.74	<	2.48	<	2.48	<	2.48	<	2.48			
C28-C33	1.56	2.48	-	5.08	mg/kg	<	2.48		24	<	2.48	<	2.48	<	2.48		5			
C34-C40	1.56	2.48	-	2.71	mg/kg	<	2.48		17.6	<	2.48	<	2.48	<	2.48	<	2.48			
pH EPA Method 9045																				
pH				7.55	pH Units		6.64				9.48		7.86		7.07					9.65
Temperature				23.02	°C															
VOC 8260 Full by EPA Method 5035																				
Acetone	2	16	-		µg/Kg						19		19	<	16					
Bromoform	0.33	0.81	3000000		µg/Kg					<	0.81	<	0.81	<	0.81			<		0.81
Bromomethane	0.92	4	-		µg/Kg					<	4	<	4	<	4			<		4
2-Butanone (Methyl Ethyl Ketone - MEK)	0.56	16	-		µg/Kg					<	16	<	16	<	16			<		16
n-Butylbenzene	0.25	0.81	18000000		µg/Kg					<	0.81	<	0.81	<	0.81			<		0.81
Carbon Disulfide	0.18	4	-		µg/Kg					<	4	<	4	<	4			<		4
Carbon Tetrachloride	0.21	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<		0.81
Chlorobenzene	0.086	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<		0.81
Chloroethane	0.35	4	-		µg/Kg					<	4	<	4	<	4			<		4
Acetonitrile	2.7	40	-		µg/Kg					<	40	<	40	<	40			<		40
Chloroform	0.16	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<		0.81
Chloromethane	0.29	4	-		µg/Kg					<	4	<	4	<	4			<		4
Chloroprene	0.26	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<		0.81
2-Chlorotoluene	0.15	0.81	2500000		µg/Kg					<	0.81	<	0.81	<	0.81			<		0.81

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	MAP-LT-2-10		MAP-LT-2-15		MAP-LT-3-1		MAP-LT-3-5		MAP-LT-3-10		MAP-LT-3-15		MAP-LT-3-20		MAP-LT-4-1	
					SAMPDATE	07/20/2018 10:30:00		07/20/2018 10:40:00		07/20/2018 08:20:00		07/20/2018 08:25:00		07/20/2018 08:30:00		07/20/2018 08:35:00		07/20/2018 08:45:00		07/18/2018 12:20:00	
Analyte	DL	RL	SL	Background Averages	Feature	Former Fleet Truck Parking		Former Fleet Truck Parking		Washrack Discharge Point		Washrack Discharge Point		Washrack Discharge Point		Washrack Discharge Point		Washrack Discharge Point		Former Power House	
					Unit	<		<		<		<		<		<		<		<	
VOC 8260 Full by EPA Method 5035																					
4-Chlorotoluene	0.17	0.81	2300000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,2-Dibromo-3-Chloropropane	0.76	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Dibromochloromethane	0.31	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,2-Dibromoethane (EDB)	0.26	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Dibromomethane	0.26	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
cis-1,4-dichloro-2-butene	0.36	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
t-1,4-Dichloro-2-Butene	0.27	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,2-Dichlorobenzene	0.15	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,3-Dichlorobenzene	0.13	0.81	100000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,4-Dichlorobenzene	0.18	0.81	2900000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Dichlorodifluoromethane (Freon 12)	0.16	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,1-Dichloroethane	0.13	0.81	7100000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,2-Dichloroethane	0.26	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,1-Dichloroethene	0.18	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
c-1,2-Dichloroethene	0.21	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
c-1,3-Dichloropropene	0.23	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
t-1,2-Dichloroethene	0.21	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,2-Dichloropropane	0.23	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,3-Dichloropropane	0.18	0.81	2200000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
2,2-Dichloropropane	0.17	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,1-Dichloropropene	0.28	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
t-1,3-Dichloropropene	0.16	0.81	310000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Diethyl Ether	0.22	4	-		µg/Kg					<	4	<	4	<	4			<	4		
Diisopropyl Ether (DIPE)	0.11	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Allyl Chloride	0.31	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Ethylbenzene	0.11	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Ethyl Methacrylate	0.15	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Ethyl-tert-butyl-ether (ETBE)	0.12	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Hexachloro-1,3-Butadiene	0.35	0.81	160000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
2-Hexanone	0.78	4	-		µg/Kg					<	4	<	4	<	4			<	4		
Benzene	0.13	0.81	46000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Isopropylbenzene	0.16	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
p-Isopropyltoluene	0.23	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Methacrylonitrile	0.33	4	-		µg/Kg					<	4	<	4	<	4			<	4		
Methylene Chloride	0.95	8.1	3200000		µg/Kg					<	8.1	<	8.1	<	8.1			<	8.1		
Methyl Methacrylate	0.28	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
4-Methyl-2-Pentanone	0.19	16	-		µg/Kg					<	16	<	16	<	16			<	16		
Methyl-t-Butyl Ether (MTBE)	0.13	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Naphthalene	0.35	8.1	-		µg/Kg					<	8.1	<	8.1	<	8.1			<	8.1		
Bromobenzene	0.16	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Propionitrile	1.3	16	-		µg/Kg					<	16	<	16	<	16			<	16		
n-Propylbenzene	0.17	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
sec-Butylbenzene	0.21	0.81	12000000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Styrene	0.15	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Tert-amyl-Methyl Ether (TAME)	0.22	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Tert-Butyl Alcohol (TBA)	3	20	-		µg/Kg					<	20	<	20	<	20			<	20		
tert-Butylbenzene	0.26	0.81	12000000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,1,1,2-Tetrachloroethane	0.34	0.81	2700000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,1,2,2-Tetrachloroethane	0.14	0.81	4300000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Bromochloromethane	0.33	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Tetrachloroethene	0.27	0.81	390000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Tetrahydrofuran	0.59	6.4	-		µg/Kg					<	6.4	<	6.4	<	6.4			<	6.4		
Toluene	0.14	0.81	5300000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,2,3-Trichlorobenzene	0.24	0.81	300000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,2,4-Trichlorobenzene	0.25	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,1,1-Trichloroethane	0.22	0.81	7200000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,1,2-Trichloroethane	0.31	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Trichloroethene	0.16	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Trichlorofluoromethane	0.28	0.81	5400000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Bromodichloromethane	0.21	0.81	1300000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,2,3-Trichloropropane	0.43	0.81	21000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	MAP-LT-2-10		MAP-LT-2-15		MAP-LT-3-1		MAP-LT-3-5		MAP-LT-3-10		MAP-LT-3-15		MAP-LT-3-20		MAP-LT-4-1	
					SAMPDATE	07/20/2018 10:30:00		07/20/2018 10:40:00		07/20/2018 08:20:00		07/20/2018 08:25:00		07/20/2018 08:30:00		07/20/2018 08:35:00		07/20/2018 08:45:00		07/18/2018 12:20:00	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**Former Fleet Truck Parking**		**Former Fleet Truck Parking**		**Washrack Discharge Point**		**Washrack Discharge Point**		**Washrack Discharge Point**		**Washrack Discharge Point**		**Washrack Discharge Point**		**Former Power House**	
					Unit	<		<		<		<		<		<		<		<	
VOC 8260 Full by EPA Method 5035																					
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.25	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,2,4-Trimethylbenzene	0.17	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
1,3,5-Trimethylbenzene	0.18	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
Vinyl Chloride	0.19	0.81	370000		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
o-Xylene	0.13	0.81	-		µg/Kg					<	0.81	<	0.81	<	0.81			<	0.81		
p/m-Xylene	0.3	1.6	-		µg/Kg					<	1.6	<	1.6	<	1.6			<	1.6		
Total Xylenes	0.4	2.4	-		µg/Kg					<	2.4	<	2.4	<	2.4			<	2.4		
PAHs Method 8270CM_PAH_SIM																					
1-Methylnaphthalene	3.7	10	-		ug/Kg	<	10														
2-Methylnaphthalene	3.8	10	-		ug/Kg		15														
Acenaphthene	1.4	10	-		ug/Kg	<	10														
Acenaphthylene	3.3	10	-		ug/Kg	<	10														
Anthracene	1.2	10	-		ug/Kg	<	10														
Benz(a)anthracene	1.1	10	-		ug/Kg		13														
Benzo(a)pyrene	1.8	10	-		ug/Kg	<	10														
Benzo(b)fluoranthene	1.7	10	-		ug/Kg	<	10														
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg	<	10														
Benzo(k)fluoranthene	1.7	10	-		ug/Kg	<	10														
Chrysene	0.83	10	-		ug/Kg		24														
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg	<	10														
Fluoranthene	0.84	10	-		ug/Kg	<	10														
Fluorene	1.3	10	-		ug/Kg	<	10														
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg	<	10														
Naphthalene	4	10	-		ug/Kg	<	10														
Phenanthrene	1.4	10	-		ug/Kg		31														
Pyrene	0.78	10	-		ug/Kg		24														
SVOCs EPA Method 8270C																					
1,2,4-Trichlorobenzene	22	250	-		ug/Kg	<	250														
1,2-Dichlorobenzene	37	250	-		ug/Kg	<	250														
1,3-Dichlorobenzene	50	250	-		ug/Kg	<	250														
1,4-Dichlorobenzene	31	250	-		ug/Kg	<	250														
1-Methylnaphthalene	21	250	-		ug/Kg	<	250														
2,4,5-Trichlorophenol	43	250	-		ug/Kg	<	250														
2,4,6-Trichlorophenol	35	250	820000		ug/Kg	<	250														
2,4-Dichlorophenol	23	250	-		ug/Kg	<	250														
2,4-Dimethylphenol	100	250	-		ug/Kg	<	250														
2,4-Dinitrophenol	23	1200	-		ug/Kg	<	1200														
2,4-Dinitrotoluene	14	250	-		ug/Kg	<	250														
2,6-Dinitrotoluene	33	250	-		ug/Kg	<	250														
2-Chloronaphthalene	15	250	-		ug/Kg	<	250														
2-Chlorophenol	15	250	-		ug/Kg	<	250														
2-Methyl-4,6-dinitrophenol	21	250	-		ug/Kg	<	250														
2-Methylnaphthalene	21	250	-		ug/Kg	<	250														
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg	<	250														
2-Nitroaniline	31	250	-		ug/Kg	<	250														
2-Nitrophenol	16	250	-		ug/Kg	<	250														
3 and 4-Methylphenol (m and p-Cresc	19	400	-		ug/Kg	<	400														
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg	<	1200														
3-Nitroaniline	37	250	-		ug/Kg	<	250														
4-Bromophenyl phenyl ether	24	250	-		ug/Kg	<	250														
4-Chloro-3-methylphenol	18	250	-		ug/Kg	<	250														
4-Chloroaniline	73	250	-		ug/Kg	<	250														
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg	<	250														
4-Nitroaniline	148	250	-		ug/Kg	<	250														
4-Nitrophenol	117	250	-		ug/Kg	<	250														
SVOCs EPA Method 8270C																					
Acenaphthene	25	250	-		ug/Kg	<	250														
Acenaphthylene	20	250	-		ug/Kg	<	250														
Aniline	101	250	-		ug/Kg	<	250														
Anthracene	23	250	-		ug/Kg	<	250														
Azobenzene	67	250	-		ug/Kg	<	250														

Table 6: Laboratory Analytical Data - Maintenance, Administration, and Packaging
Agua Mansa Commerce Park

					SAMPLENAME	MAP-LT-2-10		MAP-LT-2-15		MAP-LT-3-1		MAP-LT-3-5		MAP-LT-3-10		MAP-LT-3-15		MAP-LT-3-20		MAP-LT-4-1	
					SAMPDATE	07/20/2018 10:30:00		07/20/2018 10:40:00		07/20/2018 08:20:00		07/20/2018 08:25:00		07/20/2018 08:30:00		07/20/2018 08:35:00		07/20/2018 08:45:00		07/18/2018 12:20:00	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**Former Fleet Truck Parking**		**Former Fleet Truck Parking**		**Washrack Discharge Point**		**Washrack Discharge Point**		**Washrack Discharge Point**		**Washrack Discharge Point**		**Washrack Discharge Point**		**Former Power House**	
					Unit	<		<		<		<		<		<		<		<	
SVOCs EPA Method 8270C																					
Benz(a)anthracene	22	250	-		ug/Kg	<	250														
Benzidine	23	1200	2500000		ug/Kg	<	1200														
Benzo(a)pyrene	25	250	-		ug/Kg	<	250														
Benzo(b)fluoranthene	27	250	-		ug/Kg	<	250														
Benzo(g,h,i)perylene	29	250	-		ug/Kg	<	250														
Benzo(k)fluoranthene	32	250	-		ug/Kg	<	250														
Benzoic acid	36	1200	-		ug/Kg	<	1200														
Benzyl alcohol	36	250	-		ug/Kg	<	250														
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg	<	250														
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg	<	1200														
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg	<	250														
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg	<	250														
Butylbenzyl Phthalate	44	250	-		ug/Kg	<	250														
Carbazole	23	250	-		ug/Kg	<	250														
Chrysene	20	250	-		ug/Kg	<	250														
Dibenz(a,h)anthracene	21	250	-		ug/Kg	<	250														
Dibenzofuran	14	250	-		ug/Kg	<	250														
Diethyl phthalate	24	250	-		ug/Kg	<	250														
Dimethyl phthalate	22	250	-		ug/Kg	<	250														
Di-n-butyl phthalate	67	250	-		ug/Kg	<	250														
Di-n-octyl phthalate	23	250	-		ug/Kg	<	250														
Fluoranthene	21	250	-		ug/Kg	<	250														
Fluorene	27	250	-		ug/Kg	<	250														
Hexachlorobenzene	15	250	-		ug/Kg	<	250														
Hexachlorobutadiene	39	250	160000		ug/Kg	<	250														
Hexachlorocyclopentadiene	14	1200	-		ug/Kg	<	1200														
Hexachloroethane	43	250	-		ug/Kg	<	250														
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg	<	250														
Isophorone	25	250	-		ug/Kg	<	250														
Naphthalene	25	250	-		ug/Kg	<	250														
Nitrobenzene	21	1200	-		ug/Kg	<	1200														
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg	<	250														
N-Nitrosodi-n-propylamine (NDPA)	26	250	-		ug/Kg	<	250														
N-Nitrosodiphenylamine	24	250	-		ug/Kg	<	250														
Pentachlorophenol	55	1200	-		ug/Kg	<	1200														
Phenanthrene	22	250	-		ug/Kg	<	250														
Phenol	26	250	-		ug/Kg	<	250														
Pyrene	23	250	-		ug/Kg	<	250														
Pyridine	21	250	-		ug/Kg	<	250														
Total Cresol	400	400	-		ug/Kg	<	400														
Pesticides EPA Method 8081A/EPA 3545																					
4,4'-DDD	0.67	5																			
4,4'-DDE	0.57	5																			
4,4'-DDT	0.95	5																			
a-BHC	0.2	5																			
Aldrin	0.34	5																			
b-BHC	1.2	5																			
Chlordane (technical)	12	50																			
Dieldrin	0.63	5																			
Endosulfan I	0.28	5																			
Endosulfan II	0.8	5																			
Endosulfan sulfate	1.7	5																			
Endrin	0.62	5																			
Endrin aldehyde	0.9	5																			
Endrin Ketone	1.2	5																			
Heptachlor	0.44	5																			
Heptachlor epoxide	0.27	5																			
Lindane (Gamma-BHC)	0.3	5																			
Toxaphene	12	100																			

Table 7: Laboratory Analytical Data - Surface, Mining, and Crushing
Agua Mansa Commerce Park

					SAMPLENAME	SW-19-1		SW-19-5		SMC-LT-1-1		SMC-LT-1-5		SMC-LT-1-10		SMC-LT-2-1		SMC-LT-2-5		SMC-LT-2-iron	
					SAMPDATE	07/16/2018 16:25:00		07/16/2018 16:30:00		07/18/2018 15:45:00		07/18/2018 15:50:00		07/18/2018 16:00:00		07/18/2018 16:15:00		07/19/2018 09:00:00		07/19/2018 09:05:00	
					Feature	Northwest of Wet Weather Quarry		Northwest of Wet Weather Quarry		Former Iron Ore Storage		Former Iron Ore Storage		Former Iron Ore Storage		South of Secondary Reduction		South of Secondary Reduction		South of Secondary Reduction	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**																
Method 6010 CAM 16 Metals																					
Antimony	0.37	3	-	4.54	mg/Kg		10.4	<	3		6.55		4.39		6.08	<	3	<	3	<	3
Arsenic	0.36	1	4.2	4.60	mg/Kg		5.03		5.1		7.2		3.14		5.49		14.4		12		41.8
Barium	0.23	1	-	44.51	mg/Kg		68.4		63.5		51.5		28.5		53.3		37.1		45.4		18.7
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5		6.04	<	0.5	<	0.5		2.33		7.34		4.1		15.4
Chromium	0.13	1	170000	13.95	mg/Kg		18.9		25		21.4		10.2		10.9		98.9		27.1		123
Cobalt	0.19	0.5	-	6.33	mg/Kg		6.25		5.44		7.26		4.79		4.96		35.1		15.7		85.5
Copper	0.31	1	-	11.84	mg/Kg		15.1		12.4		17.2		9.69		18.9		143		65.7		377
Lead	0.32	1	320	9.43	mg/Kg		33.4		118		14.1		6.87		45.9		97.3		**125**		48.9
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1	<	1	<	1		10.1		1.22		10.2
Nickel	0.2	1.5	3100	10.03	mg/Kg		12.1		11.9		14		7.15		7.9		40.5		17.5		80
Selenium	0.72	3	-	7.11	mg/Kg		8.21		10.8		7.41	<	3		4.16		9.84		13.8	<	3
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	<	3	<	3	<	3	<	3		5.18	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		26.4		24.8		28.1		18.4		22.3		47.6		35.6		61.6
Zinc	0.28	5	-	36.75	mg/Kg		47.7		38.4		37.6		22.7		53.7		197		62.5		9.3
EPA 7199 Hexavalent Chromium																					
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	<	0.4		1.87	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4		1.38
EPA Method 7471A Mercury																					
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																					
PCB-1016	0.03	0.05	-	0.05	mg/Kg	<	0.05	<	0.05												
PCB-1232	0.10	0.05	-	0.05	mg/Kg	<	0.05	<	0.05												
PCB-1242	0.14	0.05	-	0.05	mg/Kg	<	0.05	<	0.05												
PCB-1248	0.19	0.05	-	0.05	mg/Kg	<	0.05	<	0.05												
PCB-1254	0.20	0.05	-	0.05	mg/Kg	<	0.05	<	0.05												
PCB-1260	0.07	0.05	-	0.05	mg/Kg	<	0.05	<	0.05												
PCB-1262	0.17	0.05	-	0.05	mg/Kg	<	0.05	<	0.05												
PCB-1268	0.09	0.05	-	0.05	mg/Kg	<	0.05	<	0.05												
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																					
C7-C8	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48												
C9-C10	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48												
C11-C12	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48												
C13-C14	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48												
C17-C18	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48												
C19-C20	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48												
C21-C22	1.56	2.48	-	2.48	mg/kg	<	2.48		3.23												
C23-C24	1.56	2.48	-	2.48	mg/kg	<	2.48		6.93												
C25-C27	1.56	2.48	-	2.48	mg/kg	<	2.48		5.73												
C28-C33	1.56	2.48	-	5.08	mg/kg		29.2		42.2												
C34-C40	1.56	2.48	-	2.71	mg/kg		13.4		31.9												
pH EPA Method 9045																					
pH				7.55	pH Units		8.35		12.1		8.19		11		12.5		12		10.9		12
Temperature				23.02	°C																
PAHs Method 8270CM_PAH_SIM																					
1-Methylnaphthalene	3.7	10	-		ug/Kg																
2-Methylnaphthalene	3.8	10	-		ug/Kg																
Acenaphthylene	3.3	10	-		ug/Kg																
Anthracene	1.2	10	-		ug/Kg																
Benz(a)anthracene	1.1	10	-		ug/Kg																
Benzo(a)pyrene	1.8	10	-		ug/Kg																
Benzo(b)fluoranthene	1.7	10	-		ug/Kg																
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg																
Benzo(k)fluoranthene	1.7	10	-		ug/Kg																
Chrysene	0.83	10	-		ug/Kg																
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg																
Fluoranthene	0.84	10	-		ug/Kg																
Fluorene	1.3	10	-		ug/Kg																
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg																
Naphthalene	4	10	-		ug/Kg																

Table 7: Laboratory Analytical Data - Surface, Mining, and Crushing
Agua Mansa Commerce Park

					SAMPLENAME	SW-19-1		SW-19-5		SMC-LT-1-1		SMC-LT-1-5		SMC-LT-1-10		SMC-LT-2-1		SMC-LT-2-5		SMC-LT-2-iron	
					SAMPDATE	07/16/2018 16:25:00		07/16/2018 16:30:00		07/18/2018 15:45:00		07/18/2018 15:50:00		07/18/2018 16:00:00		07/18/2018 16:15:00		07/19/2018 09:00:00		07/19/2018 09:05:00	
					Feature	Northwest of Wet Weather Quarry		Northwest of Wet Weather Quarry		Former Iron Ore Storage		Former Iron Ore Storage		Former Iron Ore Storage		South of Secondary Reduction		South of Secondary Reduction		South of Secondary Reduction	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
PAHs Method 8270CM_PAH_SIM																					
Phenanthrene	1.4	10	-		ug/Kg																
Pyrene	0.78	10	-		ug/Kg																
SVOCs EPA Method 8270C																					
1,2,4-Trichlorobenzene	22	250	-		ug/Kg																
1,2-Dichlorobenzene	37	250	-		ug/Kg																
1,3-Dichlorobenzene	50	250	-		ug/Kg																
1,4-Dichlorobenzene	31	250	-		ug/Kg																
1-Methylnaphthalene	21	250	-		ug/Kg																
2,4,5-Trichlorophenol	43	250	-		ug/Kg																
2,4,6-Trichlorophenol	35	250	820000		ug/Kg																
2,4-Dimethylphenol	100	250	-		ug/Kg																
2,4-Dinitrophenol	23	1200	-		ug/Kg																
2,4-Dinitrotoluene	14	250	-		ug/Kg																
2,6-Dinitrotoluene	33	250	-		ug/Kg																
2-Chloronaphthalene	15	250	-		ug/Kg																
2-Chlorophenol	15	250	-		ug/Kg																
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg																
2-Nitroaniline	31	250	-		ug/Kg																
2-Nitrophenol	16	250	-		ug/Kg																
3 and 4-Methylphenol (m and p-Cresol)	19	400	-		ug/Kg																
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg																
3-Nitroaniline	37	250	-		ug/Kg																
4-Bromophenyl phenyl ether	24	250	-		ug/Kg																
4-Chloro-3-methylphenol	18	250	-		ug/Kg																
4-Chloroaniline	73	250	-		ug/Kg																
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg																
4-Nitroaniline	148	250	-		ug/Kg																
4-Nitrophenol	117	250	-		ug/Kg																
Acenaphthene	25	250	-		ug/Kg																
Acenaphthylene	20	250	-		ug/Kg																
Aniline	101	250	-		ug/Kg																
Anthracene	23	250	-		ug/Kg																
Azobenzene	67	250	-		ug/Kg																
Benz(a)anthracene	22	250	-		ug/Kg																
Benzidine	23	1200	2500000		ug/Kg																
Benzo(a)pyrene	25	250	-		ug/Kg																
Benzo(b)fluoranthene	27	250	-		ug/Kg																
Benzo(g,h,i)perylene	29	250	-		ug/Kg																
Benzo(k)fluoranthene	32	250	-		ug/Kg																
Benzoic acid	36	1200	-		ug/Kg																
Benzyl alcohol	36	250	-		ug/Kg																
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg																
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg																
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg																
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg																
Butylbenzyl Phthalate	44	250	-		ug/Kg																
Carbazole	23	250	-		ug/Kg																
Chrysene	20	250	-		ug/Kg																
Dibenz(a,h)anthracene	21	250	-		ug/Kg																
Dibenzofuran	14	250	-		ug/Kg																
Diethyl phthalate	24	250	-		ug/Kg																
Dimethyl phthalate	22	250	-		ug/Kg																
Di-n-butyl phthalate	67	250	-		ug/Kg																
Di-n-octyl phthalate	23	250	-		ug/Kg																
Fluoranthene	21	250	-		ug/Kg																

Table 7: Laboratory Analytical Data - Surface, Mining, and Crushing
Agua Mansa Commerce Park

					SAMPLENAME	SW-19-1		SW-19-5		SMC-LT-1-1		SMC-LT-1-5		SMC-LT-1-10		SMC-LT-2-1		SMC-LT-2-5		SMC-LT-2-iron	
					SAMPDATE	07/16/2018 16:25:00		07/16/2018 16:30:00		07/18/2018 15:45:00		07/18/2018 15:50:00		07/18/2018 16:00:00		07/18/2018 16:15:00		07/19/2018 09:00:00		07/19/2018 09:05:00	
					Feature	Northwest of Wet Weather Quarry		Northwest of Wet Weather Quarry		Former Iron Ore Storage		Former Iron Ore Storage		Former Iron Ore Storage		South of Secondary Reduction		South of Secondary Reduction		South of Secondary Reduction	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
SVOCs EPA Method 8270C																					
Fluorene	27	250	-		ug/Kg																
Hexachlorobenzene	15	250	-		ug/Kg																
Hexachlorobutadiene	39	250	160000		ug/Kg																
Hexachlorocyclopentadiene	14	1200	-		ug/Kg																
Hexachloroethane	43	250	-		ug/Kg																
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg																
Isophorone	25	250	-		ug/Kg																
Naphthalene	25	250	-		ug/Kg																
Nitrobenzene	21	1200	-		ug/Kg																
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg																
N-Nitrosodiphenylamine	24	250	-		ug/Kg																
Pentachlorophenol	55	1200	-		ug/Kg																
Phenanthrene	22	250	-		ug/Kg																
Phenol	26	250	-		ug/Kg																
Total Cresol	400	400	-		ug/Kg																
EPA Method 8290 Dioxins																					
2,3,7,8-TCDD					ng/kg													ND			
1,2,3,7,8-PeCDD					ng/kg													ND			
1,2,3,4,7,8-HxCDD					ng/kg													ND			
1,2,3,6,7,8-HxCDD					ng/kg													2.86			
1,2,3,7,8,9-HxCDD					ng/kg													1.06			
1,2,3,4,6,7,8-HpCDD					ng/kg													6.37			
OCDD					ng/kg													15			
2,3,7,8-TCDF					ng/kg													ND			
1,2,3,7,8-PeCDF					ng/kg													ND			
2,3,4,7,8-PeCDF					ng/kg													ND			
1,2,3,4,7,8-HxCDF					ng/kg													ND			
1,2,3,6,7,8-HxCDF					ng/kg													ND			
2,3,4,6,7,8-HxCDF					ng/kg													ND			
1,2,3,7,8,9-HxCDF					ng/kg													ND			
1,2,3,4,6,7,8-HpCDF					ng/kg													1.83			
1,2,3,4,7,8,9-HpCDF					ng/kg													ND			
OCDF					ng/kg													EMPC			
Total TCDDs					ng/kg													0.189			
Total PeCDDs					ng/kg													0.184			
Total HxCDDs					ng/kg													15.9			
Total HpCDDs					ng/kg													12.6			
Total TCDFs					ng/kg													ND			
Total PeCDFs					ng/kg													0.647			
Total HxCDFs					ng/kg													3.27			
Total HpCDFs					ng/kg													5.33			
ES 2,3,7,8-TCDD					%													89.9			
ES 1,2,3,7,8-PeCDD					%													88.5			
ES 1,2,3,4,7,8-HxCDD					%													90.4			
ES 1,2,3,6,7,8-HxCDD					%													86.7			
ES 1,2,3,7,8,9-HxCDD					%													80.4			
ES 1,2,3,4,6,7,8-HpCDD					%													80.7			
ES OCDD					%													65.6			
ES 2,3,7,8-TCDF					%													101			
ES 1,2,3,7,8-PeCDF					%													99.7			
ES 2,3,4,7,8-PeCDF					%													98.7			
ES 1,2,3,4,7,8-HxCDF					%													85.6			
ES 1,2,3,6,7,8-HxCDF					%													84.1			
ES 2,3,4,6,7,8-HxCDF					%													80.7			
ES 1,2,3,7,8,9-HxCDF					%													85.5			
ES 1,2,3,4,6,7,8-HpCDF					%													80			
ES 1,2,3,4,7,8,9-HpCDF					%													82.6			
ES OCDF					%													70.5			
SS 37Cl-2378-TCDD					%													103			
SS 12347-PeCDD					%													98.5			
SS 12346-PeCDF					%													107			

Table 7: Laboratory Analytical Data - Surface, Mining, and Crushing
Agua Mansa Commerce Park

					SAMPLENAME	SW-19-1		SW-19-5		SMC-LT-1-1		SMC-LT-1-5		SMC-LT-1-10		SMC-LT-2-1		SMC-LT-2-5		SMC-LT-2-iron	
					SAMPDATE	07/16/2018 16:25:00		07/16/2018 16:30:00		07/18/2018 15:45:00		07/18/2018 15:50:00		07/18/2018 16:00:00		07/18/2018 16:15:00		07/19/2018 09:00:00		07/19/2018 09:05:00	
					Feature	Northwest of Wet Weather Quarry		Northwest of Wet Weather Quarry		Former Iron Ore Storage		Former Iron Ore Storage		Former Iron Ore Storage		South of Secondary Reduction		South of Secondary Reduction		South of Secondary Reduction	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
EPA Method 8290 Dioxins																					
SS 123469-HxCDF					%														102		
SS 1234689-HpCDF					%														85.9		
AS 1368-TCDD					%														100		
AS 1368-TCDF					%														112		
ITEF TEQ (ND=0; EMPC=0)					ng/kg														0.489		
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg														0.491		
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg														0.549		
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg														0.551		
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg														0.611		
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg														0.489		
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg														0.491		
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg														0.553		
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg														0.553		
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg														0.628		

Table 7: Laboratory Analytical Data - Surface, Mining, and Crushing
Agua Mansa Commerce Park

					SAMPLENAME	SMC-LT-3-1		SMC-LT-3-5		SMC-LT-3-10		SMC-SB-1-5		SMC-SB-1-10		SMC-SB-1-30		SMC-SB-2-1		SMC-SB-2-5		SMC-SB-2-10
					SAMPDATE	07/19/2018 09:55:00		07/19/2018 10:00:00		07/19/2018 10:10:00		07/18/2018 14:45:00		07/18/2018 14:55:00		07/18/2018 15:15:00		07/18/2018 11:40:00		07/18/2018 11:50:00		07/18/2018 12:00:00
					Feature	Southeast of Secondary Reduction		Southeast of Secondary Reduction		Southeast of Secondary Reduction		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
Method 6010 CAM 16 Metals																							
Antimony	0.37	3	-	4.54	mg/Kg	<	3	<	3	<	3		4.01		5.13		10.5		6.68	<	3		9.84
Arsenic	0.36	1	4.2	4.60	mg/Kg		8.15		7.18		7.36		12.2		9.46		13		3.45		13.8		9.97
Barium	0.23	1	-	44.51	mg/Kg		307		235		145		91.7		79.9		102		44.2		109		49
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5	<	0.5	<	0.5		1.01		0.69		1.82	<	0.5		2.32		2.1
Chromium	0.13	1	170000	13.95	mg/Kg		11.6		3.67		3.66		52.3		28.9		36.4		16.8		27.4		14.4
Cobalt	0.19	0.5	-	6.33	mg/Kg		0.92		0.53		0.59		3.62		3.2		3.42		6.53		4.09		5.49
Copper	0.31	1	-	11.84	mg/Kg		5.9		5.02		4.94		15.9		14.3		17.7		12.5		10.4		12.4
Lead	0.32	1	320	9.43	mg/Kg		19.7		7.86		17		47.8		31		49.5		14.2		63.1		39.7
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1	<	1	<	1	<	1	<	1		2.74	<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		3.39		1.59	<	1.5		7.38		6.52		10.5		9.41		8.5		8.72
Selenium	0.72	3	-	7.11	mg/Kg		**22.6**		11.7		15.4		15.5		11.5		16.4	<	3	<	3		9.44
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5		0.96	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3		3.39	<	3	<	3	<	3	<	3	<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		4.2		3.9		2.98		27.4		28.4		31.6		27.5		23.4		26.5
Zinc	0.28	5	-	36.75	mg/Kg		45.3		34.2		26.8		39.9		31.5		36.5		40		39.7		30
EPA 7199 Hexavalent Chromium																							
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg		3.31		0.651		0.580		9.24		8.66		5.32	<	0.4		7.79		0.459
EPA Method 7471A Mercury																							
Mercury	0.02	0.14	4.4	0.14	mg/Kg		0.5		0.5		0.36	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																							
PCB-1016	0.03	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1232	0.10	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1242	0.14	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1248	0.19	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1254	0.20	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1260	0.07	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1262	0.17	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1268	0.09	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																							
C7-C8	1.56	2.48	-	2.48	mg/kg													<	2.48				
C9-C10	1.56	2.48	-	2.48	mg/kg													<	2.48				
C11-C12	1.56	2.48	-	2.48	mg/kg													<	2.48				
C13-C14	1.56	2.48	-	2.48	mg/kg													<	2.48				
C17-C18	1.56	2.48	-	2.48	mg/kg													<	2.48				
C19-C20	1.56	2.48	-	2.48	mg/kg													<	2.48				
C21-C22	1.56	2.48	-	2.48	mg/kg													<	2.48				
C23-C24	1.56	2.48	-	2.48	mg/kg													<	2.48				
C25-C27	1.56	2.48	-	2.48	mg/kg													<	2.48				
C28-C33	1.56	2.48	-	5.08	mg/kg														4.94				
C34-C40	1.56	2.48	-	2.71	mg/kg													<	2.48				
pH EPA Method 9045																							
pH				7.55	pH Units		11.6		11.2		11.2		12.5		12.2		12.5		9.16				11
Temperature				23.02	°C																		
PAHs Method 8270CM_PAH_SIM																							
1-Methylnaphthalene	3.7	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
2-Methylnaphthalene	3.8	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Acenaphthylene	3.3	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Anthracene	1.2	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Benz(a)anthracene	1.1	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Benzo(a)pyrene	1.8	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Benzo(b)fluoranthene	1.7	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Benzo(k)fluoranthene	1.7	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Chrysene	0.83	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Fluoranthene	0.84	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Fluorene	1.3	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
Naphthalene	4	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10

Table 7: Laboratory Analytical Data - Surface, Mining, and Crushing
Agua Mansa Commerce Park

					SAMPLENAME	SMC-LT-3-1		SMC-LT-3-5		SMC-LT-3-10		SMC-SB-1-5		SMC-SB-1-10		SMC-SB-1-30		SMC-SB-2-1		SMC-SB-2-5		SMC-SB-2-10	
					SAMPDATE	07/19/2018 09:55:00		07/19/2018 10:00:00		07/19/2018 10:10:00		07/18/2018 14:45:00		07/18/2018 14:55:00		07/18/2018 15:15:00		07/18/2018 11:40:00		07/18/2018 11:50:00		07/18/2018 12:00:00	
					Feature	Southeast of Secondary Reduction		Southeast of Secondary Reduction		Southeast of Secondary Reduction		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
PAHs Method 8270CM_PAH_SIM																							
Phenanthrene	1.4	10	-		ug/Kg								12	<	10	<	10	<	10			<	10
Pyrene	0.78	10	-		ug/Kg							<	10	<	10	<	10	<	10			<	10
SVOCs EPA Method 8270C																							
1,2,4-Trichlorobenzene	22	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
1,2-Dichlorobenzene	37	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
1,3-Dichlorobenzene	50	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
1,4-Dichlorobenzene	31	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
1-Methylnaphthalene	21	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
2,4,5-Trichlorophenol	43	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
2,4,6-Trichlorophenol	35	250	820000		ug/Kg							<	250	<	250	<	250	<	250			<	250
2,4-Dimethylphenol	100	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
2,4-Dinitrophenol	23	1200	-		ug/Kg							<	1200	<	1200	<	1200	<	1200			<	1200
2,4-Dinitrotoluene	14	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
2,6-Dinitrotoluene	33	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
2-Chloronaphthalene	15	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
2-Chlorophenol	15	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
2-Nitroaniline	31	250	_		ug/Kg							<	250	<	250	<	250	<	250			<	250
2-Nitrophenol	16	250	_		ug/Kg							<	250	<	250	<	250	<	250			<	250
3 and 4-Methylphenol (m and p-Cresol)	19	400	-		ug/Kg							<	400	<	400	<	400	<	400			<	400
3,3'-Dichlorobenzidine	54	1200	_		ug/Kg							<	1200	<	1200	<	1200	<	1200			<	1200
3-Nitroaniline	37	250	_		ug/Kg							<	250	<	250	<	250	<	250			<	250
4-Bromophenyl phenyl ether	24	250	_		ug/Kg							<	250	<	250	<	250	<	250			<	250
4-Chloro-3-methylphenol	18	250	_		ug/Kg							<	250	<	250	<	250	<	250			<	250
4-Chloroaniline	73	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
4-Nitroaniline	148	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
4-Nitrophenol	117	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Acenaphthene	25	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Acenaphthylene	20	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Aniline	101	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Anthracene	23	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Azobenzene	67	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Benz(a)anthracene	22	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Benzidine	23	1200	2500000		ug/Kg							<	1200	<	1200	<	1200	<	1200			<	1200
Benzo(a)pyrene	25	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Benzo(b)fluoranthene	27	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Benzo(g,h,i)perylene	29	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Benzo(k)fluoranthene	32	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Benzoic acid	36	1200	-		ug/Kg							<	1200	<	1200	<	1200	<	1200			<	1200
Benzyl alcohol	36	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg							<	1200	<	1200	<	1200	<	1200			<	1200
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Butylbenzyl Phthalate	44	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Carbazole	23	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Chrysene	20	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Dibenz(a,h)anthracene	21	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Dibenzofuran	14	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Diethyl phthalate	24	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Dimethyl phthalate	22	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Di-n-butyl phthalate	67	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Di-n-octyl phthalate	23	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250
Fluoranthene	21	250	-		ug/Kg							<	250	<	250	<	250	<	250			<	250

Table 7: Laboratory Analytical Data - Surface, Mining, and Crushing
Agua Mansa Commerce Park

					SAMPLENAME	SMC-LT-3-1	SMC-LT-3-5	SMC-LT-3-10	SMC-SB-1-5	SMC-SB-1-10	SMC-SB-1-30	SMC-SB-2-1	SMC-SB-2-5	SMC-SB-2-10
					SAMPDATE	07/19/2018 09:55:00	07/19/2018 10:00:00	07/19/2018 10:10:00	07/18/2018 14:45:00	07/18/2018 14:55:00	07/18/2018 15:15:00	07/18/2018 11:40:00	07/18/2018 11:50:00	07/18/2018 12:00:00
					Feature	Southeast of Secondary Reduction	Southeast of Secondary Reduction	Southeast of Secondary Reduction	Wet Weather Quarry	Wet Weather Quarry	Wet Weather Quarry	Wet Weather Quarry	Wet Weather Quarry	Wet Weather Quarry
Analyte	DL	RL	SL	Background Averages	Unit	<	<	<	<	<	<	<	<	<
SVOCs EPA Method 8270C														
Fluorene	27	250	-		ug/Kg				< 250	< 250	< 250	< 250		< 250
Hexachlorobenzene	15	250	-		ug/Kg				< 250	< 250	< 250	< 250		< 250
Hexachlorobutadiene	39	250	160000		ug/Kg				< 250	< 250	< 250	< 250		< 250
Hexachlorocyclopentadiene	14	1200	-		ug/Kg				< 1200	< 1200	< 1200	< 1200		< 1200
Hexachloroethane	43	250	-		ug/Kg				< 250	< 250	< 250	< 250		< 250
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg				< 250	< 250	< 250	< 250		< 250
Isophorone	25	250	-		ug/Kg				< 250	< 250	< 250	< 250		< 250
Naphthalene	25	250	-		ug/Kg				< 250	< 250	< 250	< 250		< 250
Nitrobenzene	21	1200	-		ug/Kg				< 1200	< 1200	< 1200	< 1200		< 1200
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg				< 250	< 250	< 250	< 250		< 250
N-Nitrosodiphenylamine	24	250	-		ug/Kg				< 250	< 250	< 250	< 250		< 250
Pentachlorophenol	55	1200	-		ug/Kg				< 1200	< 1200	< 1200	< 1200		< 1200
Phenanthrene	22	250	-		ug/Kg				< 250	< 250	< 250	< 250		< 250
Phenol	26	250	-		ug/Kg				< 250	< 250	< 250	< 250		< 250
Total Cresol	400	400	-		ug/Kg				< 400	< 400	< 400	< 400		< 400
EPA Method 8290 Dioxins														
2,3,7,8-TCDD					ng/kg	ND	ND	ND	ND	ND	ND		ND	ND
1,2,3,7,8-PeCDD					ng/kg	ND	ND	ND	ND	ND	ND		ND	ND
1,2,3,4,7,8-HxCDD					ng/kg	ND	ND	ND	ND	ND	ND		ND	ND
1,2,3,6,7,8-HxCDD					ng/kg	ND	ND	ND	ND	ND	EMPC		2.86	ND
1,2,3,7,8,9-HxCDD					ng/kg	ND	ND	ND	ND	ND	2.73		1.06	ND
1,2,3,4,6,7,8-HpCDD					ng/kg	EMPC	0.839	EMPC	6.73	7.76	22.6		6.37	1.43
OCDD					ng/kg	8.33	6.41	4.32	45.7	36.9	120		15	9.31
2,3,7,8-TCDF					ng/kg	ND	ND	ND	ND	ND	ND		ND	ND
1,2,3,7,8-PeCDF					ng/kg	ND	ND	ND	ND	ND	ND		ND	ND
2,3,4,7,8-PeCDF					ng/kg	ND	ND	ND	ND	ND	ND		ND	ND
1,2,3,4,7,8-HxCDF					ng/kg	ND	ND	ND	ND	ND	ND		ND	ND
1,2,3,6,7,8-HxCDF					ng/kg	ND	ND	ND	ND	ND	ND		ND	ND
2,3,4,6,7,8-HxCDF					ng/kg	ND	ND	ND	ND	ND	ND		ND	ND
1,2,3,7,8,9-HxCDF					ng/kg	ND	ND	ND	ND	ND	ND		ND	ND
1,2,3,4,6,7,8-HpCDF					ng/kg	ND	0.201	ND	0.865	1.36	3.13		1.83	ND
1,2,3,4,7,8,9-HpCDF					ng/kg	ND	ND	ND	ND	ND	ND		ND	ND
OCDF					ng/kg	ND	ND	ND	3.63	ND	EMPC		EMPC	ND
Total TCDDs					ng/kg	ND	ND	ND	ND	ND	1.13		0.189	ND
Total PeCDDs					ng/kg	ND	ND	ND	ND	ND	3.48		0.184	ND
Total HxCDDs					ng/kg	ND	ND	ND	4.22	8.24	42.9		15.9	1.05
Total HpCDDs					ng/kg	2.51	2.13	1.61	19.3	14.3	46.7		12.6	2.75
Total TCDFs					ng/kg	0.0224	0.0232	0.0232	ND	ND	0.415		ND	ND
Total PeCDFs					ng/kg	0.0132	0.0102	0.0133	0.746	ND	ND		0.647	ND
Total HxCDFs					ng/kg	0.0367	0.0404	0.0357	1.22	0.879	3.54		3.27	ND
Total HpCDFs					ng/kg	0.0276	0	0.0384	3.87	3.56	8.33		5.33	ND
ES 2,3,7,8-TCDD					%	92.8	91.9	88.4	88.2	93.1	99.9		89.9	ND
ES 1,2,3,7,8-PeCDD					%	90.4	92.5	84.6	86.8	88.6	92.8		88.5	ND
ES 1,2,3,4,7,8-HxCDD					%	84	86.6	78.4	71.1	70.9	84.4		90.4	ND
ES 1,2,3,6,7,8-HxCDD					%	85.2	85	79.9	73.7	74.5	81.9		86.7	ND
ES 1,2,3,7,8,9-HxCDD					%	81.3	81.1	78.7	77.3	72.8	87.3		80.4	ND
ES 1,2,3,4,6,7,8-HpCDD					%	84.2	77.4	78.8	77.7	70.9	83.5		80.7	ND
ES OCDD					%	73	69.4	71.6	66.2	62.8	76		65.6	ND
ES 2,3,7,8-TCDF					%	101	99.4	101	100	100	99		101	ND
ES 1,2,3,7,8-PeCDF					%	97.3	98.6	97.6	108	99.2	103		99.7	ND
ES 2,3,4,7,8-PeCDF					%	101	99.6	94.9	101	99.3	99.5		98.7	ND
ES 1,2,3,4,7,8-HxCDF					%	88.1	81.7	78.9	74.2	69.9	82.5		85.6	ND
ES 1,2,3,6,7,8-HxCDF					%	86.8	80.6	77.3	79.7	68.1	83.6		84.1	ND
ES 2,3,4,6,7,8-HxCDF					%	82.2	79	76.7	72.4	68.6	77.6		80.7	ND
ES 1,2,3,7,8,9-HxCDF					%	87.8	84.4	83.4	81.1	77.4	83.6		85.5	ND
ES 1,2,3,4,6,7,8-HpCDF					%	81.5	77	77	75.5	70.9	80		80	ND
ES 1,2,3,4,7,8,9-HpCDF					%	85	79.4	82.4	73.8	65.2	78.3		82.6	ND
ES OCDF					%	74.5	73.8	75.4	67.1	62.8	63		70.5	ND
SS 37Cl-2378-TCDD					%	105	106	109	108	107	112		103	ND
SS 12347-PeCDD					%	104	104	103	101	101	108		98.5	ND
SS 12346-PeCDF					%	105	102	113	117	117	111		107	ND

Table 7: Laboratory Analytical Data - Surface, Mining, and Crushing
Agua Mansa Commerce Park

					SAMPLENAME	SMC-LT-3-1		SMC-LT-3-5		SMC-LT-3-10		SMC-SB-1-5		SMC-SB-1-10		SMC-SB-1-30		SMC-SB-2-1		SMC-SB-2-5		SMC-SB-2-10	
					SAMPDATE	07/19/2018 09:55:00		07/19/2018 10:00:00		07/19/2018 10:10:00		07/18/2018 14:45:00		07/18/2018 14:55:00		07/18/2018 15:15:00		07/18/2018 11:40:00		07/18/2018 11:50:00		07/18/2018 12:00:00	
					Feature	Southeast of Secondary Reduction		Southeast of Secondary Reduction		Southeast of Secondary Reduction		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
EPA Method 8290 Dioxins																							
SS 123469-HxCDF					%		102		95.8		101		102		92		108				102		ND
SS 1234689-HpCDF					%		91.3		81.9		87.7		92.3		83.4		99.9				85.9		ND
AS 1368-TCDD					%		97.2		95.6		95		102		100		107				100		ND
AS 1368-TCDF					%		104		102		111		115		114		108				112		ND
ITEF TEQ (ND=0; EMPC=0)					ng/kg		0.00937		0.0168		0.00511		0.125		0.128		0.665				0.489		0.0237
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg		0.0182		0.0168		0.0112		0.125		0.128		1.4				0.491		0.0237
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg		0.0722		0.0713		0.0629		0.247		0.264		0.856				0.549		0.132
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg		0.081		0.0713		0.069		0.247		0.264		1.59				0.551		0.132
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg		0.144		0.126		0.127		0.369		0.399		1.78				0.611		0.241
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg		0.00937		0.0168		0.00511		0.125		0.128		0.665				0.489		0.0237
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg		0.0182		0.0168		0.0112		0.125		0.128		1.4				0.491		0.0237
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg		0.0782		0.0784		0.0725		0.237		0.257		0.809				0.553		0.145
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg		0.087		0.0784		0.0786		0.237		0.257		1.54				0.553		0.145
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg		0.162		0.145		0.149		0.383		0.412		1.77				0.628		0.274

Table 7: Laboratory Analytical Data - Surface, Mining, and Crushing
Agua Mansa Commerce Park

					SAMPLENAME	SMC-SB-2-30		SMC-SB-3-10		SMC-SB-3-20		SMC-SB-3-30		SMC-SB-3-40	
					SAMPDATE	07/18/2018 14:00:00		07/19/2018 09:30:00		07/19/2018 09:45:00		07/19/2018 10:15:00		07/19/2018 10:30:00	
					Feature	Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**	
Method 6010 CAM 16 Metals															
Antimony	0.37	3	-	4.54	mg/Kg		4.47		11.3	<	3		15		7.34
Arsenic	0.36	1	4.2	4.60	mg/Kg		4.96		15.6		13.6		6.88		2.69
Barium	0.23	1	-	44.51	mg/Kg		40.7		83.4		228		208		284
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg		1.28		0.55		1.19	<	0.5	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		13.4		39.4		27.8		17.7		17.3
Cobalt	0.19	0.5	-	6.33	mg/Kg		5.13		2.99		2.85		11.6		13.5
Copper	0.31	1	-	11.84	mg/Kg		11.4		13.1		14.6		16.9		10.6
Lead	0.32	1	320	9.43	mg/Kg		31.7		25.8		43.9		9.77		3.14
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1	<	1	<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		8.99		6.63		6.21		5.54		6.53
Selenium	0.72	3	-	7.11	mg/Kg		9.86		18.8		14.6		7.54		4.78
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	<	3	<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		24.9		23		21.1		39.7		49.6
Zinc	0.28	5	-	36.75	mg/Kg		27.6		29		40.4		41.9		45.5
EPA 7199 Hexavalent Chromium															
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg		0.411		3.89		4.23	<	0.4	<	0.4
EPA Method 7471A Mercury															
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082															
PCB-1016	0.03	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1232	0.10	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1242	0.14	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1248	0.19	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1254	0.20	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1260	0.07	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1262	0.17	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
PCB-1268	0.09	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05	<	0.05
TPH Carbon Chain C7-C40 EPA Method 8015B (M)															
C7-C8	1.56	2.48	-	2.48	mg/kg										
C9-C10	1.56	2.48	-	2.48	mg/kg										
C11-C12	1.56	2.48	-	2.48	mg/kg										
C13-C14	1.56	2.48	-	2.48	mg/kg										
C17-C18	1.56	2.48	-	2.48	mg/kg										
C19-C20	1.56	2.48	-	2.48	mg/kg										
C21-C22	1.56	2.48	-	2.48	mg/kg										
C23-C24	1.56	2.48	-	2.48	mg/kg										
C25-C27	1.56	2.48	-	2.48	mg/kg										
C28-C33	1.56	2.48	-	5.08	mg/kg										
C34-C40	1.56	2.48	-	2.71	mg/kg										
pH EPA Method 9045															
pH				7.55	pH Units		10.8		12.4		11.5		7.57		7.67
Temperature				23.02	°C										
PAHs Method 8270CM_PAH_SIM															
1-Methylnaphthalene	3.7	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10
2-Methylnaphthalene	3.8	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10
Acenaphthylene	3.3	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10
Anthracene	1.2	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10
Benz(a)anthracene	1.1	10	-		ug/Kg	<	10	<	10		10	<	10	<	10
Benzo(a)pyrene	1.8	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10
Benzo(b)fluoranthene	1.7	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10
Benzo(k)fluoranthene	1.7	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10
Chrysene	0.83	10	-		ug/Kg	<	10	<	10		11	<	10	<	10
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10
Fluoranthene	0.84	10	-		ug/Kg	<	10	<	10		12	<	10	<	10
Fluorene	1.3	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10
Naphthalene	4	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10

Table 7: Laboratory Analytical Data - Surface, Mining, and Crushing
Agua Mansa Commerce Park

					SAMPLENAME	SMC-SB-2-30		SMC-SB-3-10		SMC-SB-3-20		SMC-SB-3-30		SMC-SB-3-40	
					SAMPDATE	07/18/2018 14:00:00		07/19/2018 09:30:00		07/19/2018 09:45:00		07/19/2018 10:15:00		07/19/2018 10:30:00	
					Feature	Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**	
PAHs Method 8270CM_PAH_SIM															
Phenanthrene	1.4	10	-		ug/Kg	<	10	<	10		17	<	10	<	10
Pyrene	0.78	10	-		ug/Kg	<	10	<	10		12	<	10	<	10
SVOCs EPA Method 8270C															
1,2,4-Trichlorobenzene	22	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
1,2-Dichlorobenzene	37	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
1,3-Dichlorobenzene	50	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
1,4-Dichlorobenzene	31	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
1-Methylnaphthalene	21	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
2,4,5-Trichlorophenol	43	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
2,4,6-Trichlorophenol	35	250	820000		ug/Kg	<	250	<	250	<	250	<	250	<	250
2,4-Dimethylphenol	100	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
2,4-Dinitrophenol	23	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200
2,4-Dinitrotoluene	14	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
2,6-Dinitrotoluene	33	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
2-Chloronaphthalene	15	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
2-Chlorophenol	15	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
2-Nitroaniline	31	250	_		ug/Kg	<	250	<	250	<	250	<	250	<	250
2-Nitrophenol	16	250	_		ug/Kg	<	250	<	250	<	250	<	250	<	250
3 and 4-Methylphenol (m and p-Cresol)	19	400	-		ug/Kg	<	400	<	400	<	400	<	400	<	400
3,3'-Dichlorobenzidine	54	1200	_		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200
3-Nitroaniline	37	250	_		ug/Kg	<	250	<	250	<	250	<	250	<	250
4-Bromophenyl phenyl ether	24	250	_		ug/Kg	<	250	<	250	<	250	<	250	<	250
4-Chloro-3-methylphenol	18	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
4-Chloroaniline	73	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
4-Nitroaniline	148	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
4-Nitrophenol	117	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Acenaphthene	25	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Acenaphthylene	20	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Aniline	101	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Anthracene	23	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Azobenzene	67	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Benz(a)anthracene	22	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Benzidine	23	1200	2500000		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200
Benzo(a)pyrene	25	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Benzo(b)fluoranthene	27	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Benzo(g,h,i)perylene	29	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Benzo(k)fluoranthene	32	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Benzoic acid	36	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200
Benzyl alcohol	36	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Butylbenzyl Phthalate	44	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Carbazole	23	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Chrysene	20	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Dibenz(a,h)anthracene	21	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Dibenzofuran	14	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Diethyl phthalate	24	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Dimethyl phthalate	22	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Di-n-butyl phthalate	67	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Di-n-octyl phthalate	23	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Fluoranthene	21	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250

Table 7: Laboratory Analytical Data - Surface, Mining, and Crushing
Agua Mansa Commerce Park

					SAMPLENAME	SMC-SB-2-30		SMC-SB-3-10		SMC-SB-3-20		SMC-SB-3-30		SMC-SB-3-40	
					SAMPDATE	07/18/2018 14:00:00		07/19/2018 09:30:00		07/19/2018 09:45:00		07/19/2018 10:15:00		07/19/2018 10:30:00	
					Feature	Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**	
SVOCs EPA Method 8270C															
Fluorene	27	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Hexachlorobenzene	15	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Hexachlorobutadiene	39	250	160000		ug/Kg	<	250	<	250	<	250	<	250	<	250
Hexachlorocyclopentadiene	14	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200
Hexachloroethane	43	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Isophorone	25	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Naphthalene	25	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Nitrobenzene	21	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
N-Nitrosodiphenylamine	24	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Pentachlorophenol	55	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200
Phenanthrene	22	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Phenol	26	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250
Total Cresol	400	400	-		ug/Kg	<	400	<	400	<	400	<	400	<	400
EPA Method 8290 Dioxins															
2,3,7,8-TCDD					ng/kg		ND		ND		ND		ND		ND
1,2,3,7,8-PeCDD					ng/kg		ND		ND		ND		ND		ND
1,2,3,4,7,8-HxCDD					ng/kg		ND		ND		ND		ND		ND
1,2,3,6,7,8-HxCDD					ng/kg		ND		0.925		1.35		ND		ND
1,2,3,7,8,9-HxCDD					ng/kg		ND		ND		ND		ND		ND
1,2,3,4,6,7,8-HpCDD					ng/kg		ND		7.15		13.3		ND		ND
OCDD					ng/kg		2.17		31.8		94.6		EMPC		3.65
2,3,7,8-TCDF					ng/kg		ND		ND		ND		ND		ND
1,2,3,7,8-PeCDF					ng/kg		ND		ND		ND		ND		ND
2,3,4,7,8-PeCDF					ng/kg		ND		ND		ND		ND		ND
1,2,3,4,7,8-HxCDF					ng/kg		ND		ND		ND		ND		ND
1,2,3,6,7,8-HxCDF					ng/kg		ND		ND		ND		ND		ND
2,3,4,6,7,8-HxCDF					ng/kg		ND		ND		ND		ND		ND
1,2,3,7,8,9-HxCDF					ng/kg		ND		ND		ND		ND		ND
1,2,3,4,6,7,8-HpCDF					ng/kg		ND		0.354		ND		ND		ND
1,2,3,4,7,8,9-HpCDF					ng/kg		ND		ND		ND		ND		ND
OCDF					ng/kg		ND		ND		ND		ND		ND
Total TCDDs					ng/kg		ND		ND		ND		ND		ND
Total PeCDDs					ng/kg		ND		ND		0.328		ND		ND
Total HxCDDs					ng/kg		ND		5.99		9.05		ND		ND
Total HpCDDs					ng/kg		ND		13.3		30.4		0.323		1.88
Total TCDFs					ng/kg		ND		ND		1.01		ND		ND
Total PeCDFs					ng/kg		ND		ND		1.74		ND		ND
Total HxCDFs					ng/kg		ND		1.01		2.28		ND		ND
Total HpCDFs					ng/kg		ND		1.28		2.07		ND		ND
ES 2,3,7,8-TCDD					%		87.9		94.4		99.1		85.8		85.7
ES 1,2,3,7,8-PeCDD					%		83.1		87.6		91.1		81.8		77.4
ES 1,2,3,4,7,8-HxCDD					%		80.8		74.8		80.6		76.6		75.6
ES 1,2,3,6,7,8-HxCDD					%		81.6		75.6		80.8		76.9		78.6
ES 1,2,3,7,8,9-HxCDD					%		78.6		78.8		80.1		81.5		79.5
ES 1,2,3,4,6,7,8-HpCDD					%		79.5		79		85.3		78.7		82.8
ES OCDD					%		69.5		95.7		76.4		76.5		76.8
ES 2,3,7,8-TCDF					%		100		100		101		101		100
ES 1,2,3,7,8-PeCDF					%		108		102		108		105		106
ES 2,3,4,7,8-PeCDF					%		103		97.3		103		98.7		99.3
ES 1,2,3,4,7,8-HxCDF					%		76.7		74		84		74.3		74.9
ES 1,2,3,6,7,8-HxCDF					%		77.4		75.7		81.2		75.7		79.6
ES 2,3,4,6,7,8-HxCDF					%		79.8		78.2		86.1		76.7		74.3
ES 1,2,3,7,8,9-HxCDF					%		87		90.2		82.3		80.1		85.4
ES 1,2,3,4,6,7,8-HpCDF					%		81.8		78.1		80.9		80.6		82.3
ES 1,2,3,4,7,8,9-HpCDF					%		74.2		81.2		81.9		78.6		82
ES OCDF					%		71.2		86.2		79.9		77.7		81.4
SS 37Cl-2378-TCDD					%		108		107		111		107		106
SS 12347-PeCDD					%		100		102		104		98.4		98.6
SS 12346-PeCDF					%		119		110		117		121		132

Table 7: Laboratory Analytical Data - Surface, Mining, and Crushing
Agua Mansa Commerce Park

					SAMPLENAME	SMC-SB-2-30		SMC-SB-3-10		SMC-SB-3-20		SMC-SB-3-30		SMC-SB-3-40	
					SAMPDATE	07/18/2018 14:00:00		07/19/2018 09:30:00		07/19/2018 09:45:00		07/19/2018 10:15:00		07/19/2018 10:30:00	
					Feature	Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry		Wet Weather Quarry	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**	
EPA Method 8290 Dioxins															
SS 123469-HxCDF					%		106		95.8		107		103		113
SS 1234689-HpCDF					%		94.7		90.9		93.2		95.9		107
AS 1368-TCDD					%		94.6		95.7		103		99.3		101
AS 1368-TCDF					%		112		101		110		116		127
ITEF TEQ (ND=0; EMPC=0)					ng/kg		0.00217		0.199		0.363		0.0001		0.00365
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg		0.00217		0.199		0.363		0.00282		0.00365
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg		0.116		0.301		0.509		0.0849		0.0949
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg		0.116		0.301		0.509		0.0876		0.0949
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg		0.231		0.402		0.655		0.172		0.186
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg		0.00217		0.199		0.363		0.0001		0.00365
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg		0.00217		0.199		0.363		0.00282		0.00365
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg		0.134		0.302		0.465		0.0956		0.108
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg		0.134		0.302		0.465		0.0964		0.108
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg		0.268		0.427		0.633		0.192		0.215

Table 8: Laboratory Analytical Results - White Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	WCP-LT-1-1		WCP-LT-1-5		WCP-LT-1-10		WCP-LT-1-15		WCP-LT-2-1		WCP-LT-2-5		WCP-LT-2-10		WCP-LT-2-15		WCP-LT-3-1		WCP-LT-3-5		WCP-LT-3-10	
					SAMPDATE	07/18/2018 11:40:00		07/18/2018 11:45:00		07/18/2018 11:50:00		07/18/2018 12:00:00		07/18/2018 15:10:00		07/18/2018 15:15:00		07/18/2018 15:20:00		07/18/2018 15:25:00		07/18/2018 14:30:00		07/18/2018 14:32:00		07/18/2018 14:35:00	
					Feature	Kilns		Kilns		Kilns		Kilns		Kilns		Kilns		Kilns		Kilns		Kilns		Kilns		Kilns	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	<		<		<		<		<		<		<		<		<		<		<	
Method 6010 CAM 16 Metals																											
Antimony	0.37	3	-	4.54	mg/Kg		5.54		7		3.18				3.55		3.45		7.87				5.91	<	3		3.33
Arsenic	0.36	1	4.2	4.60	mg/Kg		10.4		15.20		2.87				6.15		28.9		14.1				5.41		8.52		5.24
Barium	0.23	1	-	44.51	mg/Kg		71.7		106		18.7				46.3		90.6		68				32.6		40.4		31.6
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg		1.05		8.95	<	0.5			<	0.5		7.78	<	0.5			<	0.5	<	0.5	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		31.5		20.3		6.7				11.5		14.9		22.6				11.9		13.9		12.6
Cobalt	0.19	0.5	-	6.33	mg/Kg		4.79		3.62		4.65				5.46		3.84		12.4				5.7		8.14		7.3
Copper	0.31	1	-	11.84	mg/Kg		10.9		14.1		9.6				13.9		16.5		22.9				11.2		11.2		11.8
Lead	0.32	1	320	9.43	mg/Kg		37.6		71.20		3.54				12.2		83.7		8.87				11.1		5.39		6.12
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1			<	1	<	1	<	1			<	1	<	1	<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		7.84		40.5		4.64				7.51		48.7		15.7				8.2		9.05		8.76
Selenium	0.72	3	-	7.11	mg/Kg		8.15		18.3	<	3				8.14		15.5	<	3				8.46		4.46		4.75
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	<	3			<	3	<	3	<	3			<	3		3.19	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		24.1		51		14.8				25		48.5		42.3				24.8		31.2		25
Zinc	0.28	5	-	36.75	mg/Kg		110		190		27.7				27.7		204		59.4				35.1		44.1		38.7
EPA 7199 Hexavalent Chromium																											
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg		4.63		1.83	<	0.4			<	0.4		0.405	<	0.4			<	0.4	<	0.4	<	0.4
EPA Method 7471A Mercury																											
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14			<	0.14	<	0.14	<	0.14			<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																											
PCB-1016	0.03	0.05	-	0.05	mg/Kg	<	0.05	<	0.05																		
PCB-1232	0.10	0.05	-	0.05	mg/Kg	<	0.05	<	0.05																		
PCB-1242	0.14	0.05	-	0.05	mg/Kg	<	0.05	<	0.05																		
PCB-1248	0.19	0.05	-	0.05	mg/Kg	<	0.05	<	0.05																		
PCB-1254	0.20	0.05	-	0.05	mg/Kg	<	0.05	<	0.05																		
PCB-1260	0.07	0.05	-	0.05	mg/Kg	<	0.05	<	0.05																		
PCB-1262	0.17	0.05	-	0.05	mg/Kg	<	0.05	<	0.05																		
PCB-1268	0.09	0.05	-	0.05	mg/Kg	<	0.05	<	0.05																		
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																											
C7-C8	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C9-C10	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C11-C12	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C13-C14	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C17-C18	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C19-C20	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C21-C22	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C23-C24	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C25-C27	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C28-C33	1.56	2.48	-	5.08	mg/kg				29.7	<	2.48	<	2.48				9.77	<	2.48	<	2.48			<	2.48	<	2.48
C34-C40	1.56	2.48	-	2.71	mg/kg				62.3	<	2.48	<	2.48				5.16	<	2.48	<	2.48			<	2.48	<	2.48
pH EPA Method 9045																											
pH				7.55	pH Units		10.8		11		9.51				8.91		8.34		9.83				9.05		9.12		8.89
Temperature				23.02	°C																						
PAHs Method 8270CM_PAH_SIM																											
1-Methylnaphthalene	3.7	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
2-Methylnaphthalene	3.8	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Acenaphthylene	3.3	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Anthracene	1.2	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Benz(a)anthracene	1.1	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Benzo(a)pyrene	1.8	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Benzo(b)fluoranthene	1.7	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Benzo(k)fluoranthene	1.7	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Chrysene	0.83	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Fluoranthene	0.84	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Fluorene	1.3	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Naphthalene	4	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Phenanthrene	1.4	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10
Pyrene	0.78	10	-		ug/Kg	<	10	<	10	<	10			<	10	<	10	<	10			<	10	<	10	<	10

Table 8: Laboratory Analytical Results - White Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	WCP-LT-1-1		WCP-LT-1-5		WCP-LT-1-10		WCP-LT-1-15		WCP-LT-2-1		WCP-LT-2-5		WCP-LT-2-10		WCP-LT-2-15		WCP-LT-3-1		WCP-LT-3-5		WCP-LT-3-10	
					SAMPDATE	07/18/2018 11:40:00		07/18/2018 11:45:00		07/18/2018 11:50:00		07/18/2018 12:00:00		07/18/2018 15:10:00		07/18/2018 15:15:00		07/18/2018 15:20:00		07/18/2018 15:25:00		07/18/2018 14:30:00		07/18/2018 14:32:00		07/18/2018 14:35:00	
					Feature	Kilns		Kilns		Kilns		Kilns		Kilns		Kilns		Kilns		Kilns		Kilns		Kilns		Kilns	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	<		<		<		<		<		<		<		<		<		<		<	
SVOCs EPA Method 8270C																											
1,2,4-Trichlorobenzene	22	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
1,2-Dichlorobenzene	37	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
1,3-Dichlorobenzene	50	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
1,4-Dichlorobenzene	31	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
1-Methylnaphthalene	21	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
2,4,5-Trichlorophenol	43	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
2,4,6-Trichlorophenol	35	250	820000		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
2,4-Dimethylphenol	100	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
2,4-Dinitrophenol	23	1200	-		ug/Kg	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
2,4-Dinitrotoluene	14	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
2,6-Dinitrotoluene	33	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
2-Chloronaphthalene	15	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
2-Chlorophenol	15	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
2-Nitroaniline	31	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
2-Nitrophenol	16	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
3 and 4-Methylphenol (m and p-Cresol	19	400	-		ug/Kg	<	400	<	400	<	400			<	400	<	400	<	400			<	400	<	400	<	400
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
3-Nitroaniline	37	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
4-Bromophenyl phenyl ether	24	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
4-Chloro-3-methylphenol	18	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
4-Chloroaniline	73	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
4-Nitroaniline	148	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
4-Nitrophenol	117	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Acenaphthene	25	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Acenaphthylene	20	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Aniline	101	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Anthracene	23	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Azobenzene	67	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Benz(a)anthracene	22	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Benzidine	23	1200	2500000		ug/Kg	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
Benzo(a)pyrene	25	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Benzo(b)fluoranthene	27	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Benzo(g,h,i)perylene	29	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Benzo(k)fluoranthene	32	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Benzoic acid	36	1200	-		ug/Kg	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
Benzyl alcohol	36	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Butylbenzyl Phthalate	44	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Carbazole	23	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Chrysene	20	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Dibenz(a,h)anthracene	21	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Dibenzofuran	14	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Diethyl phthalate	24	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Dimethyl phthalate	22	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Di-n-butyl phthalate	67	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Di-n-octyl phthalate	23	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Fluoranthene	21	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Fluorene	27	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Hexachlorobenzene	15	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Hexachlorobutadiene	39	250	160000		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Hexachlorocyclopentadiene	14	1200	-		ug/Kg	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
Hexachloroethane	43	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Isophorone	25	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Naphthalene	25	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Nitrobenzene	21	1200	-		ug/Kg	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
N-Nitrosodiphenylamine	24	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Pentachlorophenol	55	1200	-		ug/Kg	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
Phenanthrene	22	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Phenol	26	250	-		ug/Kg	<	250	<	250	<	250			<	250	<	250	<	250			<	250	<	250	<	250
Total Cresol	400	400	-		ug/Kg	<	400	<	400	<	400			<	400	<	400	<	400			<	400	<	400	<	400

Table 8: Laboratory Analytical Results - White Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	WCP-LT-1-1	WCP-LT-1-5	WCP-LT-1-10	WCP-LT-1-15	WCP-LT-2-1	WCP-LT-2-5	WCP-LT-2-10	WCP-LT-2-15	WCP-LT-3-1	WCP-LT-3-5	WCP-LT-3-10
					SAMPDATE	07/18/2018 11:40:00	07/18/2018 11:45:00	07/18/2018 11:50:00	07/18/2018 12:00:00	07/18/2018 15:10:00	07/18/2018 15:15:00	07/18/2018 15:20:00	07/18/2018 15:25:00	07/18/2018 14:30:00	07/18/2018 14:32:00	07/18/2018 14:35:00
					Feature	Kilns	Kilns	Kilns	Kilns	Kilns	Kilns	Kilns	Kilns	Kilns	Kilns	Kilns
Analyte	DL	RL	SL	Background Averages	Unit	<	<	<	<	<	<	<	<	<	<	<
EPA Method 8290 Dioxins																
2,3,7,8-TCDD					ng/kg	EMPC	ND	ND		ND	ND	ND		ND	ND	ND
1,2,3,7,8-PeCDD					ng/kg	EMPC	ND	ND		ND	ND	ND		ND	ND	ND
1,2,3,4,7,8-HxCDD					ng/kg	ND	ND	ND		ND	ND	ND		ND	ND	ND
1,2,3,6,7,8-HxCDD					ng/kg	7.96	ND	ND		ND	ND	ND		ND	ND	ND
1,2,3,7,8,9-HxCDD					ng/kg	3.35	ND	ND		ND	ND	ND		ND	ND	ND
1,2,3,4,6,7,8-HpCDD					ng/kg	166	EMPC	ND		EMPC	ND	ND		ND	ND	ND
OCDD					ng/kg	1110	4.41	ND		3.40	ND	ND		ND	ND	ND
2,3,7,8-TCDF					ng/kg	0.437	ND	ND		ND	ND	ND		ND	ND	ND
1,2,3,7,8-PeCDF					ng/kg	ND	ND	ND		ND	ND	ND		ND	ND	ND
2,3,4,7,8-PeCDF					ng/kg	1.21	ND	ND		ND	ND	ND		ND	ND	ND
1,2,3,4,7,8-HxCDF					ng/kg	0.464	ND	ND		ND	ND	ND		ND	ND	ND
1,2,3,6,7,8-HxCDF					ng/kg	0.4	ND	ND		ND	ND	ND		ND	ND	ND
2,3,4,6,7,8-HxCDF					ng/kg	EMPC	ND	ND		ND	ND	ND		ND	ND	ND
1,2,3,7,8,9-HxCDF					ng/kg	ND	ND	ND		ND	ND	ND		ND	ND	ND
1,2,3,4,6,7,8-HpCDF					ng/kg	6.24	ND	ND		ND	ND	ND		ND	ND	ND
1,2,3,4,7,8,9-HpCDF					ng/kg	ND	ND	ND		ND	ND	ND		ND	ND	ND
OCDF					ng/kg	12.9	ND	ND		ND	ND	ND		ND	ND	ND
Total TCDDs					ng/kg	1.56	0.349	ND		0.152	ND	ND		ND	ND	ND
Total PeCDDs					ng/kg	4.5	ND	ND		ND	ND	ND		ND	ND	ND
Total HxCDDs					ng/kg	46.7	ND	ND		ND	ND	ND		ND	ND	ND
Total HpCDDs					ng/kg	281	1.38	ND		0.491	ND	ND		ND	ND	ND
Total TCDFs					ng/kg	9.93	0.268	ND		ND	ND	ND		0.131	ND	ND
Total PeCDFs					ng/kg	19.1	ND	ND		0.822	ND	ND		ND	ND	ND
Total HxCDFs					ng/kg	15.2	ND	ND		0.203	ND	ND		ND	ND	ND
Total HpCDFs					ng/kg	24.8	0.166	ND		ND	ND	ND		ND	ND	ND
ES 2,3,7,8-TCDD					%	95.3	89.2	86.1		96.1	112	94.8		91.6	90.6	79.8
ES 1,2,3,7,8-PeCDD					%	93.3	87.7	86.5		94.8	108	92.6		84.7	91	76.4
ES 1,2,3,4,7,8-HxCDD					%	82.5	85	80.3		82.4	86.6	84.5		73.4	78.4	71.7
ES 1,2,3,6,7,8-HxCDD					%	76.4	82.5	76.2		84.8	85.4	80.6		68.5	76.7	71.6
ES 1,2,3,7,8,9-HxCDD					%	76.2	83.1	76.2		85.8	84.3	80.9		69	74.3	72.1
ES 1,2,3,4,6,7,8-HpCDD					%	86.6	89.7	77.6		84.2	89.1	86.5		71.2	75.6	71.4
ES OCDD					%	90.1	89.7	73.7		83.5	86.4	87.4		69.3	75.6	70.8
ES 2,3,7,8-TCDF					%	94.7	85.4	83.5		92.4	122	89.8		96.1	94.4	78.2
ES 1,2,3,7,8-PeCDF					%	96.5	86.5	86.6		94.9	123	87		96.5	95.4	76.6
ES 2,3,4,7,8-PeCDF					%	99.7	86.2	86.1		91.7	122	88.9		98.2	92.9	77
ES 1,2,3,4,7,8-HxCDF					%	78.1	84.3	74.5		86.3	87.4	81.5		68.8	78.1	72.5
ES 1,2,3,6,7,8-HxCDF					%	76	81	75.6		84	86.6	81.7		69.8	77	71.6
ES 2,3,4,6,7,8-HxCDF					%	78.3	83.6	74.9		84.4	87	80.3		70.3	78	71.9
ES 1,2,3,7,8,9-HxCDF					%	84.8	94	81.4		89	91.3	90.3		73.4	83.4	78.7
ES 1,2,3,4,6,7,8-HpCDF					%	84.1	88.9	76.7		85.1	90.2	88		71.5	77.6	73.3
ES 1,2,3,4,7,8,9-HpCDF					%	87.1	93.9	80.8		91.7	92.8	88.9		75.1	84.3	78
ES OCDF					%	80.6	85.6	73.6		84.9	89.8	86.5		71	78.6	72.8
SS 37Cl-2378-TCDD					%	115	106	106		97.9	121	101		116	100	98.4
SS 12347-PeCDD					%	110	103	102		97.1	117	96		109	99.2	95.6
SS 12346-PeCDF					%	115	103	101		93.7	127	93.8		119	104	94.2
SS 123469-HxCDF					%	106	112	102		100	106	96		100	98	100
SS 1234689-HpCDF					%	97.3	103	88.3		96.4	101	99.1		88.8	91.1	97.4
AS 1368-TCDD					%	105	98.4	94.4		83.3	117	94.4		107	102	90.6
AS 1368-TCDF					%	110	97	93.1		81.3	127	90.9		116	101	90.4
ITEF TEQ (ND=0; EMPC=0)					ng/kg	4.81	0.00582	0		0	0	0		0	0	0
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg	5.42	0.0113	0		0	0	0		0	0	0
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg	4.83	0.0794	0.0289		0.0494	0.0494	0.0494		0.0386	0.0494	0.0494
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg	5.43	0.0849	0.0289		0.0494	0.0494	0.0494		0.0386	0.0494	0.0494
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg	5.45	0.159	0.0579		0.0989	0.0989	0.0989		0.0773	0.0989	0.0989
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg	3.82	0.00273	0		0	0	0		0	0	0
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg	4.64	0.00823	0		0	0	0		0	0	0
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg	3.84	0.0859	0.0341		0.0594	0.0594	0.0594		0.0492	0.0594	0.0594
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg	4.66	0.0914	0.0341		0.0594	0.0594	0.0594		0.0492	0.0594	0.0594
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg	4.67	0.175	0.0681		0.119	0.119	0.119		0.0984	0.119	0.119
													0		0	

Table 8: Laboratory Analytical Results - White Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	WCP-LT-3-15		WCP-LT-4-1		WCP-LT-4-5		WCP-LT-4-10		WCP-LT-4-15	
					SAMPDATE	07/18/2018 14:45:00		07/18/2018 10:55:00		07/18/2018 11:03:00		07/18/2018 11:10:00		07/18/2018 11:15:00	
					Feature	Kilns		Kilns		Kilns		Kilns		Kilns	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**	
Method 6010 CAM 16 Metals															
Antimony	0.37	3	-	4.54	mg/Kg				4.17		5.57		6.74		
Arsenic	0.36	1	4.2	4.60	mg/Kg				5.52		5.59		6.03		
Barium	0.23	1	-	44.51	mg/Kg				102		76.6		31.4		
Beryllium	0.17	0.5	210	0.50	mg/Kg			<	0.5	<	0.5	<	0.5		
Cadmium	0.21	0.5	7.3	0.50	mg/Kg			<	0.5	<	0.5	<	0.5		
Chromium	0.13	1	170000	13.95	mg/Kg				17		19.1		9.82		
Cobalt	0.19	0.5	-	6.33	mg/Kg				8.55		9.81		6.02		
Copper	0.31	1	-	11.84	mg/Kg				19		14.7		8.34		
Lead	0.32	1	320	9.43	mg/Kg				16.2		5.51		5.84		
Molybdenum	0.13	1	-	1.00	mg/Kg			<	1	<	1	<	1		
Nickel	0.2	1.5	3100	10.03	mg/Kg				12.7		9.58		6.26		
Selenium	0.72	3	-	7.11	mg/Kg				12.9		7.61		3.49		
Silver	0.13	0.5	1500	0.50	mg/Kg			<	0.5	<	0.5	<	0.5		
Thallium	0.42	3	-	3.00	mg/Kg			<	3	<	3	<	3		
Vanadium	0.37	0.5	1000	24.05	mg/Kg				36.5		38.1		22.3		
Zinc	0.28	5	-	36.75	mg/Kg				55.4		43.6		29.4		
EPA 7199 Hexavalent Chromium															
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg			<	0.4	<	0.4	<	0.4		
EPA Method 7471A Mercury															
Mercury	0.02	0.14	4.4	0.14	mg/Kg			<	0.14	<	0.14	<	0.14		
PCBs EPA Method 8082															
PCB-1016	0.03	0.05	-	0.05	mg/Kg			<	0.05	<	0.05				
PCB-1232	0.10	0.05	-	0.05	mg/Kg			<	0.05	<	0.05				
PCB-1242	0.14	0.05	-	0.05	mg/Kg			<	0.05	<	0.05				
PCB-1248	0.19	0.05	-	0.05	mg/Kg			<	0.05	<	0.05				
PCB-1254	0.20	0.05	-	0.05	mg/Kg			<	0.05	<	0.05				
PCB-1260	0.07	0.05	-	0.05	mg/Kg			<	0.05	<	0.05				
PCB-1262	0.17	0.05	-	0.05	mg/Kg			<	0.05	<	0.05				
PCB-1268	0.09	0.05	-	0.05	mg/Kg			<	0.05	<	0.05				
TPH Carbon Chain C7-C40 EPA Method 8015B (M)															
C7-C8	1.56	2.48	-	2.48	mg/kg	<	2.48			<	2.48	<	2.48	<	2.48
C9-C10	1.56	2.48	-	2.48	mg/kg	<	2.48			<	2.48	<	2.48	<	2.48
C11-C12	1.56	2.48	-	2.48	mg/kg	<	2.48			<	2.48	<	2.48	<	2.48
C13-C14	1.56	2.48	-	2.48	mg/kg	<	2.48			<	2.48	<	2.48	<	2.48
C17-C18	1.56	2.48	-	2.48	mg/kg	<	2.48			<	2.48	<	2.48	<	2.48
C19-C20	1.56	2.48	-	2.48	mg/kg	<	2.48			<	2.48	<	2.48	<	2.48
C21-C22	1.56	2.48	-	2.48	mg/kg	<	2.48			<	2.48	<	2.48	<	2.48
C23-C24	1.56	2.48	-	2.48	mg/kg	<	2.48			<	2.48	<	2.48	<	2.48
C25-C27	1.56	2.48	-	2.48	mg/kg	<	2.48			<	2.48	<	2.48	<	2.48
C28-C33	1.56	2.48	-	5.08	mg/kg	<	2.48			<	2.48	<	2.48	<	2.48
C34-C40	1.56	2.48	-	2.71	mg/kg	<	2.48			<	2.48	<	2.48	<	2.48
pH EPA Method 9045															
pH				7.55	pH Units				9.54		9.4		8.83		
Temperature				23.02	°C										
PAHs Method 8270CM_PAH_SIM															
1-Methylnaphthalene	3.7	10	-		ug/Kg			<	10	<	10	<	10		
2-Methylnaphthalene	3.8	10	-		ug/Kg			<	10	<	10	<	10		
Acenaphthylene	3.3	10	-		ug/Kg			<	10	<	10	<	10		
Anthracene	1.2	10	-		ug/Kg			<	10	<	10	<	10		
Benz(a)anthracene	1.1	10	-		ug/Kg			<	10	<	10	<	10		
Benzo(a)pyrene	1.8	10	-		ug/Kg			<	10	<	10	<	10		
Benzo(b)fluoranthene	1.7	10	-		ug/Kg			<	10	<	10	<	10		
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg			<	10	<	10	<	10		
Benzo(k)fluoranthene	1.7	10	-		ug/Kg			<	10	<	10	<	10		
Chrysene	0.83	10	-		ug/Kg			<	10	<	10	<	10		
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg			<	10	<	10	<	10		
Fluoranthene	0.84	10	-		ug/Kg			<	10	<	10	<	10		
Fluorene	1.3	10	-		ug/Kg			<	10	<	10	<	10		
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg			<	10	<	10	<	10		
Naphthalene	4	10	-		ug/Kg			<	10	<	10	<	10		
Phenanthrene	1.4	10	-		ug/Kg			<	10	<	10	<	10		
Pyrene	0.78	10	-		ug/Kg			<	10	<	10	<	10		

Table 8: Laboratory Analytical Results - White Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	WCP-LT-3-15		WCP-LT-4-1		WCP-LT-4-5		WCP-LT-4-10		WCP-LT-4-15	
					SAMPDATE	07/18/2018 14:45:00		07/18/2018 10:55:00		07/18/2018 11:03:00		07/18/2018 11:10:00		07/18/2018 11:15:00	
					Feature	Kilns		Kilns		Kilns		Kilns		Kilns	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**	
SVOCs EPA Method 8270C															
1,2,4-Trichlorobenzene	22	250	-		ug/Kg			<	250	<	250	<	250		
1,2-Dichlorobenzene	37	250	-		ug/Kg			<	250	<	250	<	250		
1,3-Dichlorobenzene	50	250	-		ug/Kg			<	250	<	250	<	250		
1,4-Dichlorobenzene	31	250	-		ug/Kg			<	250	<	250	<	250		
1-Methylnaphthalene	21	250	-		ug/Kg			<	250	<	250	<	250		
2,4,5-Trichlorophenol	43	250	-		ug/Kg			<	250	<	250	<	250		
2,4,6-Trichlorophenol	35	250	820000		ug/Kg			<	250	<	250	<	250		
2,4-Dimethylphenol	100	250	-		ug/Kg			<	250	<	250	<	250		
2,4-Dinitrophenol	23	1200	-		ug/Kg			<	1200	<	1200	<	1200		
2,4-Dinitrotoluene	14	250	-		ug/Kg			<	250	<	250	<	250		
2,6-Dinitrotoluene	33	250	-		ug/Kg			<	250	<	250	<	250		
2-Chloronaphthalene	15	250	-		ug/Kg			<	250	<	250	<	250		
2-Chlorophenol	15	250	-		ug/Kg			<	250	<	250	<	250		
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg			<	250	<	250	<	250		
2-Nitroaniline	31	250	-		ug/Kg			<	250	<	250	<	250		
2-Nitrophenol	16	250	-		ug/Kg			<	250	<	250	<	250		
3 and 4-Methylphenol (m and p-Cresol	19	400	-		ug/Kg			<	400	<	400	<	400		
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg			<	1200	<	1200	<	1200		
3-Nitroaniline	37	250	-		ug/Kg			<	250	<	250	<	250		
4-Bromophenyl phenyl ether	24	250	-		ug/Kg			<	250	<	250	<	250		
4-Chloro-3-methylphenol	18	250	-		ug/Kg			<	250	<	250	<	250		
4-Chloroaniline	73	250	-		ug/Kg			<	250	<	250	<	250		
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg			<	250	<	250	<	250		
4-Nitroaniline	148	250	-		ug/Kg			<	250	<	250	<	250		
4-Nitrophenol	117	250	-		ug/Kg			<	250	<	250	<	250		
Acenaphthene	25	250	-		ug/Kg			<	250	<	250	<	250		
Acenaphthylene	20	250	-		ug/Kg			<	250	<	250	<	250		
Aniline	101	250	-		ug/Kg			<	250	<	250	<	250		
Anthracene	23	250	-		ug/Kg			<	250	<	250	<	250		
Azobenzene	67	250	-		ug/Kg			<	250	<	250	<	250		
Benz(a)anthracene	22	250	-		ug/Kg			<	250	<	250	<	250		
Benzidine	23	1200	2500000		ug/Kg			<	1200	<	1200	<	1200		
Benzo(a)pyrene	25	250	-		ug/Kg			<	250	<	250	<	250		
Benzo(b)fluoranthene	27	250	-		ug/Kg			<	250	<	250	<	250		
Benzo(g,h,i)perylene	29	250	-		ug/Kg			<	250	<	250	<	250		
Benzo(k)fluoranthene	32	250	-		ug/Kg			<	250	<	250	<	250		
Benzoic acid	36	1200	-		ug/Kg			<	1200	<	1200	<	1200		
Benzyl alcohol	36	250	-		ug/Kg			<	250	<	250	<	250		
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg			<	250	<	250	<	250		
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg			<	1200	<	1200	<	1200		
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg			<	250	<	250	<	250		
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg			<	250	<	250	<	250		
Butylbenzyl Phthalate	44	250	-		ug/Kg			<	250	<	250	<	250		
Carbazole	23	250	-		ug/Kg			<	250	<	250	<	250		
Chrysene	20	250	-		ug/Kg			<	250	<	250	<	250		
Dibenz(a,h)anthracene	21	250	-		ug/Kg			<	250	<	250	<	250		
Dibenzofuran	14	250	-		ug/Kg			<	250	<	250	<	250		
Diethyl phthalate	24	250	-		ug/Kg			<	250	<	250	<	250		
Dimethyl phthalate	22	250	-		ug/Kg			<	250	<	250	<	250		
Di-n-butyl phthalate	67	250	-		ug/Kg			<	250	<	250	<	250		
Di-n-octyl phthalate	23	250	-		ug/Kg			<	250	<	250	<	250		
Fluoranthene	21	250	-		ug/Kg			<	250	<	250	<	250		
Fluorene	27	250	-		ug/Kg			<	250	<	250	<	250		
Hexachlorobenzene	15	250	-		ug/Kg			<	250	<	250	<	250		
Hexachlorobutadiene	39	250	160000		ug/Kg			<	250	<	250	<	250		
Hexachlorocyclopentadiene	14	1200	-		ug/Kg			<	1200	<	1200	<	1200		
Hexachloroethane	43	250	-		ug/Kg			<	250	<	250	<	250		
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg			<	250	<	250	<	250		
Isophorone	25	250	-		ug/Kg			<	250	<	250	<	250		
Naphthalene	25	250	-		ug/Kg			<	250	<	250	<	250		
Nitrobenzene	21	1200	-		ug/Kg			<	1200	<	1200	<	1200		
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg			<	250	<	250	<	250		
N-Nitrosodiphenylamine	24	250	-		ug/Kg			<	250	<	250	<	250		
Pentachlorophenol	55	1200	-		ug/Kg			<	1200	<	1200	<	1200		
Phenanthrene	22	250	-		ug/Kg			<	250	<	250	<	250		
Phenol	26	250	-		ug/Kg			<	250	<	250	<	250		
Total Cresol	400	400	-		ug/Kg			<	400	<	400	<	400		

Table 8: Laboratory Analytical Results - White Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	WCP-LT-3-15		WCP-LT-4-1		WCP-LT-4-5		WCP-LT-4-10		WCP-LT-4-15	
					SAMPDATE	07/18/2018 14:45:00		07/18/2018 10:55:00		07/18/2018 11:03:00		07/18/2018 11:10:00		07/18/2018 11:15:00	
					Feature	Kilns		Kilns		Kilns		Kilns		Kilns	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**	
EPA Method 8290 Dioxins															
2,3,7,8-TCDD					ng/kg				ND		ND		ND		
1,2,3,7,8-PeCDD					ng/kg				ND		ND		ND		
1,2,3,4,7,8-HxCDD					ng/kg				ND		ND		ND		
1,2,3,6,7,8-HxCDD					ng/kg				ND		ND		ND		
1,2,3,7,8,9-HxCDD					ng/kg				ND		ND		ND		
1,2,3,4,6,7,8-HpCDD					ng/kg				0.989		ND		ND		
OCDD					ng/kg				6.97		ND		ND		
2,3,7,8-TCDF					ng/kg				ND		ND		ND		
1,2,3,7,8-PeCDF					ng/kg				ND		ND		ND		
2,3,4,7,8-PeCDF					ng/kg				ND		ND		ND		
1,2,3,4,7,8-HxCDF					ng/kg				ND		ND		ND		
1,2,3,6,7,8-HxCDF					ng/kg				ND		ND		ND		
2,3,4,6,7,8-HxCDF					ng/kg				ND		ND		ND		
1,2,3,7,8,9-HxCDF					ng/kg				ND		ND		ND		
1,2,3,4,6,7,8-HpCDF					ng/kg				0.136		ND		ND		
1,2,3,4,7,8,9-HpCDF					ng/kg				ND		ND		ND		
OCDF					ng/kg				ND		ND		ND		
Total TCDDs					ng/kg				0.3		ND		ND		
Total PeCDDs					ng/kg				ND		ND		ND		
Total HxCDDs					ng/kg				0.742		ND		ND		
Total HpCDDs					ng/kg				1.91		ND		ND		
Total TCDFs					ng/kg				0.266		ND		ND		
Total PeCDFs					ng/kg				1.1		ND		ND		
Total HxCDFs					ng/kg				0.606		ND		ND		
Total HpCDFs					ng/kg				0.384		ND		ND		
ES 2,3,7,8-TCDD					%				103		85.1		104		
ES 1,2,3,7,8-PeCDD					%				99.4		83.3		98.9		
ES 1,2,3,4,7,8-HxCDD					%				89.3		68.5		80.3		
ES 1,2,3,6,7,8-HxCDD					%				84.1		66.6		70.9		
ES 1,2,3,7,8,9-HxCDD					%				85		72.3		72.9		
ES 1,2,3,4,6,7,8-HpCDD					%				86		68.4		74		
ES OCDD					%				82.2		65.6		77.1		
ES 2,3,7,8-TCDF					%				108		86.8		113		
ES 1,2,3,7,8-PeCDF					%				105		89.1		115		
ES 2,3,4,7,8-PeCDF					%				108		89.5		116		
ES 1,2,3,4,7,8-HxCDF					%				83.6		66.2		73.3		
ES 1,2,3,6,7,8-HxCDF					%				85.6		65.7		73.6		
ES 2,3,4,6,7,8-HxCDF					%				84.2		67.7		71.9		
ES 1,2,3,7,8,9-HxCDF					%				91.3		69.3		81.3		
ES 1,2,3,4,6,7,8-HpCDF					%				84.9		67.7		75.3		
ES 1,2,3,4,7,8,9-HpCDF					%				87.6		70.1		80.3		
ES OCDF					%				82.9		65.8		74.3		
SS 37Cl-2378-TCDD					%				119		104		122		
SS 12347-PeCDD					%				108		98.8		116		
SS 12346-PeCDF					%				116		103		128		
SS 123469-HxCDF					%				104		89.6		95.5		
SS 1234689-HpCDF					%				94.4		82.6		86		
AS 1368-TCDD					%				110		97.2		115		
AS 1368-TCDF					%				114		102		127		
ITEF TEQ (ND=0; EMPC=0)					ng/kg				0.0182		0		0		
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg				0.0182		0		0		
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg				0.0782		0.0375		0.0422		
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg				0.0782		0.0375		0.0422		
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg				0.138		0.0751		0.0844		
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg				0.0133		0		0		
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg				0.0133		0		0		
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg				0.0864		0.0461		0.0499		
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg				0.0864		0.0461		0.0499		
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg				0.159		0.0921		0.0999		

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME		SW-16-1		SW-16-5		SW-17-1		SW-17-5		GCP-LT-1-1		GCP-LT-2-1		GCP-LT-2-5		GCP-LT-2-10		GCP-LT-3-1
					LABSAMPID		P807011-01		P807011-02		P807007-09		P807007-10		P807020-18		P807014-09		P807014-10		P807014-11		P807014-16
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**<**	**East Berm**	**<**	**East Berm**	**<**	**Former Diesel UST 10,000 Gallons**	**<**	**Former Diesel UST 10,000 Gallons**	**<**	**Former Water Coolers**	**<**	**Former Grey Kiln 1 & 2**	**<**	**Former Grey Kiln 1 & 2**	**<**	**Former Grey Kiln 1 & 2**	**<**	**Former Grey Kiln 1 & 2**
Method 6010 CAM 16 Metals					Unit																		
Antimony	0.37	3	-	4.54	mg/Kg	<	3	<	3	<	3	<	3		6.12	<	3	<	3	<	3	<	3
Arsenic	0.36	1	4.2	4.60	mg/Kg		3.04		8.55		3.15		4.25	<	1		2.47	<	1	<	1		3.89
Barium	0.23	1	-	44.51	mg/Kg		61.4		65.5		35.1		38		51.4		19.9		20.5		18.5		32
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg		0.83		1.37	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		26.3		26.8		10.5		12.6		13		5.55		5.87		3.97		13.6
Cobalt	0.19	0.5	-	6.33	mg/Kg		8.72		8.8		4.48		5.72		6.16		3.03		2.99		2.11		5.64
Copper	0.31	1	-	11.84	mg/Kg		17.7		19		9.17		7.81		96.4		6.52		7.07		5.66		10.2
Lead	0.32	1	320	9.43	mg/Kg		30.6		30.7		5.88		2.92		18.1		2.5		1.79		1.71		5.36
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1		2.48	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		16.4		16.2		7.98		9.45		8.47		4.74		5.34		3.49		8.7
Selenium	0.72	3	-	7.11	mg/Kg		13.9		9.61	<	3	<	3		7.68	<	3		3.81	<	3	<	3
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	<	3	<	3	<	3	<	3	<	3	<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		32.1		34.4		18.1		22.4		26.8		11.3		11.2		7.48		22.1
Zinc	0.28	5	-	36.75	mg/Kg		40.9		37.5		24.7		23.6		36.4		15.2		16		11		25.2
EPA 7199 Hexavalent Chromium																							
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg		0.533		1.47	<	0.4	<	0.4		0.622	<	0.4	<	0.4	<	0.4	<	0.4
EPA Method 7471A Mercury																							
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																							
PCB-1016	0.03	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1232	0.10	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1242	0.14	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1248	0.19	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1254	0.20	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1260	0.07	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1262	0.17	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1268	0.09	0.05	-	0.05	mg/Kg	<	0.05	<	0.05	<	0.05	<	0.05			<	0.05	<	0.05				
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																							
C7-C8	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48					<	2.48	<	2.48		
C9-C10	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48					<	2.48	<	2.48		
C11-C12	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48					<	2.48	<	2.48		
C13-C14	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48					<	2.48	<	2.48		
C17-C18	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48					<	2.48	<	2.48		
C19-C20	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48					<	2.48	<	2.48		
C21-C22	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48					<	2.48	<	2.48		
C23-C24	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48		7.6	<	2.48					<	2.48	<	2.48		
C25-C27	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48		6.28	<	2.48					<	2.48	<	2.48		
C28-C33	1.56	2.48	-	5.08	mg/kg		5.14		2.98		64.9		6.09					<	2.48	<	2.48		
C34-C40	1.56	2.48	-	2.71	mg/kg		2.56	<	2.48		65.4		5.3					<	2.48	<	2.48		
pH EPA Method 9045																							
pH				7.55	pH Units		7.05		9.12		8.63		9.12		11.4		8.62		8.97		9.33		8.74
Temperature				23.02	°C						23.3		23.4										
Method 8270CM_PAH_SIM																							
1-Methylnaphthalene	3.7	10	-		ug/Kg											<	10	<	10	<	10	<	10
2-Methylnaphthalene	3.8	10	-		ug/Kg											<	10	<	10	<	10	<	10
Acenaphthylene	3.3	10	-		ug/Kg											<	10	<	10	<	10	<	10
Anthracene	1.2	10	-		ug/Kg											<	10	<	10	<	10	<	10
Benz(a)anthracene	1.1	10	-		ug/Kg											<	10	<	10	<	10	<	10
Benzo(a)pyrene	1.8	10	-		ug/Kg											<	10	<	10	<	10	<	10
Benzo(b)fluoranthene	1.7	10	-		ug/Kg											<	10	<	10	<	10	<	10
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg											<	10	<	10	<	10	<	10
Benzo(k)fluoranthene	1.7	10	-		ug/Kg											<	10	<	10	<	10	<	10
Chrysene	0.83	10	-		ug/Kg											<	10	<	10	<	10	<	10
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg											<	10	<	10	<	10	<	10
Fluoranthene	0.84	10	-		ug/Kg											<	10	<	10	<	10	<	10
Fluorene	1.3	10	-		ug/Kg											<	10	<	10	<	10	<	10
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg											<	10	<	10	<	10	<	10
Naphthalene	4	10	-		ug/Kg											<	10	<	10	<	10	<	10
Phenanthrene	1.4	10	-		ug/Kg											<	10	<	10	<	10	<	10
Pyrene	0.78	10	-		ug/Kg											<	10	<	10	<	10	<	10

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	SW-16-1		SW-16-5		SW-17-1		SW-17-5		GCP-LT-1-1		GCP-LT-2-1		GCP-LT-2-5		GCP-LT-2-10		GCP-LT-3-1
					LABSAMPID	P807011-01		P807011-02		P807007-09		P807007-10		P807020-18		P807014-09		P807014-10		P807014-11		P807014-16
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**<**	**East Berm**	**<**	**East Berm**	**<**	**Former Diesel UST 10,000 Gallons**	**<**	**Former Diesel UST 10,000 Gallons**	**<**	**Former Water Coolers**	**<**	**Former Grey Kiln 1 & 2**	**<**	**Former Grey Kiln 1 & 2**	**<**	**Former Grey Kiln 1 & 2**	**<**	**Former Grey Kiln 1 & 2**
SVOCs EPA Method 8270C																							
1,2,4-Trichlorobenzene	22	250	-		ug/Kg											<	250	<	250	<	250	<	250
1,2-Dichlorobenzene	37	250	-		ug/Kg											<	250	<	250	<	250	<	250
1,3-Dichlorobenzene	50	250	-		ug/Kg											<	250	<	250	<	250	<	250
1,4-Dichlorobenzene	31	250	-		ug/Kg											<	250	<	250	<	250	<	250
1-Methylnaphthalene	21	250	-		ug/Kg											<	250	<	250	<	250	<	250
2,4,5-Trichlorophenol	43	250	-		ug/Kg											<	250	<	250	<	250	<	250
2,4,6-Trichlorophenol	35	250	820000		ug/Kg											<	250	<	250	<	250	<	250
2,4-Dimethylphenol	100	250	-		ug/Kg											<	250	<	250	<	250	<	250
2,4-Dinitrophenol	23	1200	-		ug/Kg											<	1200	<	1200	<	1200	<	1200
2,4-Dinitrotoluene	14	250	-		ug/Kg											<	250	<	250	<	250	<	250
2,6-Dinitrotoluene	33	250	-		ug/Kg											<	250	<	250	<	250	<	250
2-Chloronaphthalene	15	250	-		ug/Kg											<	250	<	250	<	250	<	250
2-Chlorophenol	15	250	-		ug/Kg											<	250	<	250	<	250	<	250
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg											<	250	<	250	<	250	<	250
2-Nitroaniline	31	250	-		ug/Kg											<	250	<	250	<	250	<	250
2-Nitrophenol	16	250	-		ug/Kg											<	250	<	250	<	250	<	250
3 and 4-Methylphenol (m and p-Cresol)	19	400	-		ug/Kg											<	400	<	400	<	400	<	400
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg											<	1200	<	1200	<	1200	<	1200
3-Nitroaniline	37	250	-		ug/Kg											<	250	<	250	<	250	<	250
4-Bromophenyl phenyl ether	24	250	-		ug/Kg											<	250	<	250	<	250	<	250
4-Chloro-3-methylphenol	18	250	-		ug/Kg											<	250	<	250	<	250	<	250
4-Chloroaniline	73	250	-		ug/Kg											<	250	<	250	<	250	<	250
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg											<	250	<	250	<	250	<	250
4-Nitroaniline	148	250	-		ug/Kg											<	250	<	250	<	250	<	250
4-Nitrophenol	117	250	-		ug/Kg											<	250	<	250	<	250	<	250
Acenaphthene	25	250	-		ug/Kg											<	250	<	250	<	250	<	250
Acenaphthylene	20	250	-		ug/Kg											<	250	<	250	<	250	<	250
Aniline	101	250	-		ug/Kg											<	250	<	250	<	250	<	250
Anthracene	23	250	-		ug/Kg											<	250	<	250	<	250	<	250
Azobenzene	67	250	-		ug/Kg											<	250	<	250	<	250	<	250
Benz(a)anthracene	22	250	-		ug/Kg											<	250	<	250	<	250	<	250
Benzidine	23	1200	2500000		ug/Kg											<	1200	<	1200	<	1200	<	1200
Benzo(a)pyrene	25	250	-		ug/Kg											<	250	<	250	<	250	<	250
Benzo(b)fluoranthene	27	250	-		ug/Kg											<	250	<	250	<	250	<	250
Benzo(g,h,i)perylene	29	250	-		ug/Kg											<	250	<	250	<	250	<	250
Benzo(k)fluoranthene	32	250	-		ug/Kg											<	250	<	250	<	250	<	250
Benzoic acid	36	1200	-		ug/Kg											<	1200	<	1200	<	1200	<	1200
Benzyl alcohol	36	250	-		ug/Kg											<	250	<	250	<	250	<	250
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg											<	250	<	250	<	250	<	250
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg											<	1200	<	1200	<	1200	<	1200
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg											<	250	<	250	<	250	<	250
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg											<	250	<	250	<	250	<	250
Butylbenzyl Phthalate	44	250	-		ug/Kg											<	250	<	250	<	250	<	250
Carbazole	23	250	-		ug/Kg											<	250	<	250	<	250	<	250
Chrysene	20	250	-		ug/Kg											<	250	<	250	<	250	<	250
Dibenz(a,h)anthracene	21	250	-		ug/Kg											<	250	<	250	<	250	<	250
Dibenzofuran	14	250	-		ug/Kg											<	250	<	250	<	250	<	250
Diethyl phthalate	24	250	-		ug/Kg											<	250	<	250	<	250	<	250
Dimethyl phthalate	22	250	-		ug/Kg											<	250	<	250	<	250	<	250
Di-n-butyl phthalate	67	250	-		ug/Kg											<	250	<	250	<	250	<	250
Di-n-octyl phthalate	23	250	-		ug/Kg											<	250	<	250	<	250	<	250
Fluoranthene	21	250	-		ug/Kg											<	250	<	250	<	250	<	250
Fluorene	27	250	-		ug/Kg											<	250	<	250	<	250	<	250
Hexachlorobenzene	15	250	-		ug/Kg											<	250	<	250	<	250	<	250
Hexachlorobutadiene	39	250	160000		ug/Kg											<	250	<	250	<	250	<	250
Hexachlorocyclopentadiene	14	1200	-		ug/Kg											<	1200	<	1200	<	1200	<	1200
Hexachloroethane	43	250	-		ug/Kg											<	250	<	250	<	250	<	250
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg											<	250	<	250	<	250	<	250
Isophorone	25	250	-		ug/Kg											<	250	<	250	<	250	<	250
Naphthalene	25	250	-		ug/Kg											<	250	<	250	<	250	<	250
Nitrobenzene	21	1200	-		ug/Kg											<	1200	<	1200	<	1200	<	1200
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg											<	250	<	250	<	250	<	250
N-Nitrosodiphenylamine	24	250	-		ug/Kg											<	250	<	250	<	250	<	250
Pentachlorophenol	55	1200	-		ug/Kg											<	1200	<	1200	<	1200	<	1200

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	SW-16-1		SW-16-5		SW-17-1		SW-17-5		GCP-LT-1-1		GCP-LT-2-1		GCP-LT-2-5		GCP-LT-2-10		GCP-LT-3-1
					LABSAMPID	P807011-01		P807011-02		P807007-09		P807007-10		P807020-18		P807014-09		P807014-10		P807014-11		P807014-16
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**<**	**East Berm**	**<**	**East Berm**	**<**	**Former Diesel UST 10,000 Gallons**	**<**	**Former Diesel UST 10,000 Gallons**	**<**	**Former Water Coolers**	**<**	**Former Grey Kiln 1 & 2**	**<**	**Former Grey Kiln 1 & 2**	**<**	**Former Grey Kiln 1 & 2**	**<**	**Former Grey Kiln 1 & 2**
SVOCs EPA Method 8270C																							
Phenanthrene	22	250	-		ug/Kg											<	250	<	250	<	250	<	250
Phenol	26	250	-		ug/Kg											<	250	<	250	<	250	<	250
Total Cresol	400	400	-		ug/Kg											<	400	<	400	<	400	<	400
EPA Method 8290 Dioxins																							
2,3,7,8-TCDD					ng/kg												ND		ND		ND		ND
1,2,3,7,8-PeCDD					ng/kg												ND		ND		ND		ND
1,2,3,4,7,8-HxCDD					ng/kg												ND		ND		ND		ND
1,2,3,6,7,8-HxCDD					ng/kg												ND		ND		ND		ND
1,2,3,7,8,9-HxCDD					ng/kg												ND		ND		ND		ND
1,2,3,4,6,7,8-HpCDD					ng/kg												0.577		ND		ND		0.591
OCDD					ng/kg												3.44		ND		ND		3
2,3,7,8-TCDF					ng/kg												ND		ND		ND		ND
1,2,3,7,8-PeCDF					ng/kg												ND		ND		ND		ND
2,3,4,7,8-PeCDF					ng/kg												ND		ND		ND		ND
1,2,3,4,7,8-HxCDF					ng/kg												ND		ND		ND		ND
1,2,3,6,7,8-HxCDF					ng/kg												ND		ND		ND		ND
2,3,4,6,7,8-HxCDF					ng/kg												ND		ND		ND		ND
1,2,3,7,8,9-HxCDF					ng/kg												ND		ND		ND		ND
1,2,3,4,6,7,8-HpCDF					ng/kg												ND		ND		ND		ND
1,2,3,4,7,8,9-HpCDF					ng/kg												ND		ND		ND		ND
OCDF					ng/kg												ND		ND		ND		ND
Total TCDDs					ng/kg												ND		ND		ND		ND
Total PeCDDs					ng/kg												ND		ND		ND		ND
Total HxCDDs					ng/kg												ND		ND		ND		ND
Total HpCDDs					ng/kg												1.24		ND		ND		1.24
Total TCDFs					ng/kg												0.143		ND		ND		ND
Total PeCDFs					ng/kg												ND		ND		ND		ND
Total HxCDFs					ng/kg												ND		ND		ND		0.138
Total HpCDFs					ng/kg												ND		ND		ND		ND
ES 2,3,7,8-TCDD					%												94.2		86.4		85.7		93
ES 1,2,3,7,8-PeCDD					%												95.1		86.3		84.2		95.1
ES 1,2,3,4,7,8-HxCDD					%												84.3		80.8		79.9		84.4
ES 1,2,3,6,7,8-HxCDD					%												87		79.2		74.7		87.4
ES 1,2,3,7,8,9-HxCDD					%												83.5		74.5		76.5		84.5
ES 1,2,3,4,6,7,8-HpCDD					%												85.1		74.3		74.2		83.2
ES OCDD					%												78.4		69.8		69.7		79.2
ES 2,3,7,8-TCDF					%												99.9		100		100		100
ES 1,2,3,7,8-PeCDF					%												103		98		95.4		101
ES 2,3,4,7,8-PeCDF					%												103		101		101		99.9
ES 1,2,3,4,7,8-HxCDF					%												83.9		74.8		75.3		85.5
ES 1,2,3,6,7,8-HxCDF					%												85.8		75.8		77.8		86.2
ES 2,3,4,6,7,8-HxCDF					%												81.8		73.3		72.6		87.1
ES 1,2,3,7,8,9-HxCDF					%												89.9		79		80.9		91.3
ES 1,2,3,4,6,7,8-HpCDF					%												85.3		72.8		73.5		83.7
ES 1,2,3,4,7,8,9-HpCDF					%												84.7		78.1		77.4		88.4
ES OCDF					%												79.7		72.2		74.6		80.5
SS 37Cl-2378-TCDD					%												101		104		102		105
SS 12347-PeCDD					%												105		102		101		106
SS 12346-PeCDF					%												109		114		114		105
SS 123469-HxCDF					%												102		103		97.6		104
SS 1234689-HpCDF					%												88.7		88.4		87.1		91.7
AS 1368-TCDD					%												97.5		96.9		101		101
AS 1368-TCDF					%												103		112		114		103
ITEF TEQ (ND=0; EMPC=0)					ng/kg												0.00921		0.00921		0.00921		0.00921
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg												0.00921		0.00921		0.00921		0.00921
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg												0.0544		0.0544		0.0544		0.0544
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg												0.0544		0.0544		0.0544		0.0544
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg												0.0996		0.0996		0.0996		0.0996
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg												0.00921		0.00921		0.00921		0.00921
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg												0.00921		0.00921		0.00921		0.00921
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg												0.0601		0.0601		0.0601		0.0601
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg												0.0601		0.0601		0.0601		0.0601
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg												0.113		0.113		0.113		0.113

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	GCP-LT-3-5		GCP-LT-3-10		GCP-LT-4-1		GCP-LT-4-5		GCP-LT-4-10		GCP-LT-4-15		GCP-LT-6-1		GCP-LT-6-5		GCP-LT-6-10
					LABSAMPID	P807014-17		P807014-18		P807014-12		P807014-13		P807014-14		P807014-15		P807014-06		P807014-07		P807014-08
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**		**Former Grey Kiln 1 & 2**		**Former Grey Kiln 1 & 2**		**Baghouses**		**Baghouses**		**Baghouses**		**Baghouses**		**Former Coal Storage**		**Former Coal Storage**		**Former Coal Storage**
Method 6010 CAM 16 Metals					Unit																		
Antimony	0.37	3	-	4.54	mg/Kg	<	3	<	3	<	3	<	3	<	3			<	3	<	3	<	3
Arsenic	0.36	1	4.2	4.60	mg/Kg	<	1		1.13		1.58		2.36	<	1				11		5.78		8.12
Barium	0.23	1	-	44.51	mg/Kg		24.3		24		31.1		27.8		27.6				32.6		40.2		46.4
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		7.07		6.22		10.2		9.19		8.92				13.9		13.2		17.3
Cobalt	0.19	0.5	-	6.33	mg/Kg		3.67		2.96		4.79		4.46		4.43				4.46		5.37		6.06
Copper	0.31	1	-	11.84	mg/Kg		6.98		6.26		7.14		6.17		8.7				10.7		11.4		12.7
Lead	0.32	1	320	9.43	mg/Kg		3.05		2.1		4.88		4.07		3.9				24.1		27.7		20.4
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1	<	1	<	1			<	1	<	1	<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		5.93		4.71		7.02		6.74		6.34				9.14		7.59		10.7
Selenium	0.72	3	-	7.11	mg/Kg	<	3	<	3	<	3	<	3		3.21				7.63		8.28		7.53
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	<	3	<	3	<	3			<	3	<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		13		10.9		23.2		20.8		18.7				17.9		24.1		24.4
Zinc	0.28	5	-	36.75	mg/Kg		17.8		15.4		19.5		19.7		17.4				43.7		25.1		35.8
EPA 7199 Hexavalent Chromium																							
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4			<	0.4	<	0.4	<	0.4
EPA Method 7471A Mercury																							
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14			<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																							
PCB-1016	0.03	0.05	-	0.05	mg/Kg																		
PCB-1232	0.10	0.05	-	0.05	mg/Kg																		
PCB-1242	0.14	0.05	-	0.05	mg/Kg																		
PCB-1248	0.19	0.05	-	0.05	mg/Kg																		
PCB-1254	0.20	0.05	-	0.05	mg/Kg																		
PCB-1260	0.07	0.05	-	0.05	mg/Kg																		
PCB-1262	0.17	0.05	-	0.05	mg/Kg																		
PCB-1268	0.09	0.05	-	0.05	mg/Kg																		
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																							
C7-C8	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48						
C9-C10	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48						
C11-C12	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48						
C13-C14	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48						
C17-C18	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48						
C19-C20	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48						
C21-C22	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48						
C23-C24	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48						
C25-C27	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48						
C28-C33	1.56	2.48	-	5.08	mg/kg							<	2.48	<	2.48		4.93						
C34-C40	1.56	2.48	-	2.71	mg/kg							<	2.48	<	2.48	<	2.48						
pH EPA Method 9045																							
pH				7.55	pH Units		7.68		7.46		8.89		9.22		8.93				9.37		8.91		9.12
Temperature				23.02	°C																		
Method 8270CM_PAH_SIM																							
1-Methylnaphthalene	3.7	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
2-Methylnaphthalene	3.8	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Acenaphthylene	3.3	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Anthracene	1.2	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Benz(a)anthracene	1.1	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Benzo(a)pyrene	1.8	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Benzo(b)fluoranthene	1.7	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Benzo(k)fluoranthene	1.7	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Chrysene	0.83	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Fluoranthene	0.84	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Fluorene	1.3	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Naphthalene	4	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Phenanthrene	1.4	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10
Pyrene	0.78	10	-		ug/Kg	<	10	<	10	<	10	<	10	<	10			<	10	<	10	<	10

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	GCP-LT-3-5		GCP-LT-3-10		GCP-LT-4-1		GCP-LT-4-5		GCP-LT-4-10		GCP-LT-4-15		GCP-LT-6-1		GCP-LT-6-5		GCP-LT-6-10
					LABSAMPID	P807014-17		P807014-18		P807014-12		P807014-13		P807014-14		P807014-15		P807014-06		P807014-07		P807014-08
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**		**Former Grey Kiln 1 & 2**		**Former Grey Kiln 1 & 2**		**Baghouses**		**Baghouses**		**Baghouses**		**Baghouses**		**Former Coal Storage**		**Former Coal Storage**		**Former Coal Storage**
SVOCs EPA Method 8270C																							
1,2,4-Trichlorobenzene	22	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
1,2-Dichlorobenzene	37	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
1,3-Dichlorobenzene	50	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
1,4-Dichlorobenzene	31	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
1-Methylnaphthalene	21	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
2,4,5-Trichlorophenol	43	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
2,4,6-Trichlorophenol	35	250	820000		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
2,4-Dimethylphenol	100	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
2,4-Dinitrophenol	23	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
2,4-Dinitrotoluene	14	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
2,6-Dinitrotoluene	33	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
2-Chloronaphthalene	15	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
2-Chlorophenol	15	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
2-Nitroaniline	31	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
2-Nitrophenol	16	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
3 and 4-Methylphenol (m and p-Cresol)	19	400	-		ug/Kg	<	400	<	400	<	400	<	400	<	400			<	400	<	400	<	400
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
3-Nitroaniline	37	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
4-Bromophenyl phenyl ether	24	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
4-Chloro-3-methylphenol	18	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
4-Chloroaniline	73	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
4-Nitroaniline	148	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
4-Nitrophenol	117	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Acenaphthene	25	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Acenaphthylene	20	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Aniline	101	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Anthracene	23	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Azobenzene	67	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Benz(a)anthracene	22	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Benzidine	23	1200	2500000		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
Benzo(a)pyrene	25	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Benzo(b)fluoranthene	27	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Benzo(g,h,i)perylene	29	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Benzo(k)fluoranthene	32	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Benzoic acid	36	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
Benzyl alcohol	36	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Butylbenzyl Phthalate	44	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Carbazole	23	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Chrysene	20	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Dibenz(a,h)anthracene	21	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Dibenzofuran	14	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Diethyl phthalate	24	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Dimethyl phthalate	22	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Di-n-butyl phthalate	67	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Di-n-octyl phthalate	23	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Fluoranthene	21	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Fluorene	27	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Hexachlorobenzene	15	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Hexachlorobutadiene	39	250	160000		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Hexachlorocyclopentadiene	14	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
Hexachloroethane	43	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Isophorone	25	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Naphthalene	25	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Nitrobenzene	21	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
N-Nitrosodiphenylamine	24	250	-		ug/Kg	<	250	<	250	<	250	<	250	<	250			<	250	<	250	<	250
Pentachlorophenol	55	1200	-		ug/Kg	<	1200	<	1200	<	1200	<	1200	<	1200			<	1200	<	1200	<	1200

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	GCP-LT-3-5	GCP-LT-3-10	GCP-LT-4-1	GCP-LT-4-5	GCP-LT-4-10	GCP-LT-4-15	GCP-LT-6-1	GCP-LT-6-5	GCP-LT-6-10
					LABSAMPID	P807014-17	P807014-18	P807014-12	P807014-13	P807014-14	P807014-15	P807014-06	P807014-07	P807014-08
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**Former Grey Kiln 1 & 2**	**Former Grey Kiln 1 & 2**	**Baghouses**	**Baghouses**	**Baghouses**	**Baghouses**	**Former Coal Storage**	**Former Coal Storage**	**Former Coal Storage**
SVOCs EPA Method 8270C														
Phenanthrene	22	250	-		ug/Kg	< 250	< 250	< 250	< 250	< 250		< 250	< 250	< 250
Phenol	26	250	-		ug/Kg	< 250	< 250	< 250	< 250	< 250		< 250	< 250	< 250
Total Cresol	400	400	-		ug/Kg	< 400	< 400	< 400	< 400	< 400		< 400	< 400	< 400
EPA Method 8290 Dioxins														
2,3,7,8-TCDD					ng/kg	ND	ND	ND	ND	ND		ND	ND	ND
1,2,3,7,8-PeCDD					ng/kg	ND	ND	ND	ND	ND		ND	ND	ND
1,2,3,4,7,8-HxCDD					ng/kg	ND	ND	ND	ND	ND		ND	ND	ND
1,2,3,6,7,8-HxCDD					ng/kg	ND	ND	ND	ND	ND		EMPC	EMPC	ND
1,2,3,7,8,9-HxCDD					ng/kg	ND	ND	ND	ND	ND		0.402	ND	ND
1,2,3,4,6,7,8-HpCDD					ng/kg	ND	ND	EMPC	ND	ND		8.81	EMPC	1.64
OCDD					ng/kg	ND	ND	4.46	ND	ND		54.7	2.17	9.8
2,3,7,8-TCDF					ng/kg	ND	ND	ND	ND	ND		ND	ND	ND
1,2,3,7,8-PeCDF					ng/kg	ND	ND	ND	ND	ND		ND	0.198	ND
2,3,4,7,8-PeCDF					ng/kg	ND	ND	ND	ND	ND		ND	ND	ND
1,2,3,4,7,8-HxCDF					ng/kg	ND	ND	ND	ND	ND		ND	0.219	ND
1,2,3,6,7,8-HxCDF					ng/kg	ND	ND	ND	ND	ND		ND	ND	ND
2,3,4,6,7,8-HxCDF					ng/kg	ND	ND	ND	ND	ND		ND	0.233	ND
1,2,3,7,8,9-HxCDF					ng/kg	ND	ND	ND	ND	ND		ND	ND	ND
1,2,3,4,6,7,8-HpCDF					ng/kg	ND	ND	ND	ND	ND		0.537	EMPC	0.217
1,2,3,4,7,8,9-HpCDF					ng/kg	ND	ND	ND	ND	ND		ND	ND	ND
OCDF					ng/kg	ND	ND	ND	ND	ND		0.965	ND	ND
Total TCDDs					ng/kg	ND	ND	ND	ND	ND		0.149	0.19	ND
Total PeCDDs					ng/kg	ND	ND	ND	ND	ND		0.516	ND	ND
Total HxCDDs					ng/kg	ND	ND	ND	ND	ND		7.15	1.15	0.89
Total HpCDDs					ng/kg	ND	ND	0.795	ND	ND		19.1	0.801	3.65
Total TCDFs					ng/kg	0.105	0.111	ND	ND	ND		0	ND	ND
Total PeCDFs					ng/kg	ND	ND	ND	ND	ND		0	0.198	0.22
Total HxCDFs					ng/kg	ND	ND	ND	ND	ND		0.0518	0.452	ND
Total HpCDFs					ng/kg	ND	ND	ND	ND	ND		0	ND	0.456
ES 2,3,7,8-TCDD					%	98.2	88.3	88.6	90.9	110		91.9	93.3	94.5
ES 1,2,3,7,8-PeCDD					%	101	88.8	92.4	90.6	108		92.6	93.9	93.6
ES 1,2,3,4,7,8-HxCDD					%	78.3	76.9	89.8	78.6	125		80.6	93.3	89.4
ES 1,2,3,6,7,8-HxCDD					%	81.4	74.3	91.7	79.5	116		81.6	95.1	94.1
ES 1,2,3,7,8,9-HxCDD					%	78.1	75.3	92.6	77.6	114		77.5	99.2	95.8
ES 1,2,3,4,6,7,8-HpCDD					%	75.2	75.9	85.4	74.4	113		67.3	95.6	89.4
ES OCDD					%	71.7	72.1	84.3	78.4	100		55.3	85.9	81.9
ES 2,3,7,8-TCDF					%	100	100	100	99.8	98.8		101	101	99.7
ES 1,2,3,7,8-PeCDF					%	104	104	102	102	99.9		101	101	99.2
ES 2,3,4,7,8-PeCDF					%	103	106	107	103	104		102	106	103
ES 1,2,3,4,7,8-HxCDF					%	78.6	75.2	89.3	79.9	116		80.4	95.9	91
ES 1,2,3,6,7,8-HxCDF					%	79.4	75.7	87.1	78.4	120		77.7	96.5	90.3
ES 2,3,4,6,7,8-HxCDF					%	75.1	75.2	86.4	76.2	114		73.9	93	88.3
ES 1,2,3,7,8,9-HxCDF					%	82.8	79.8	94.4	82.7	121		83.9	105	96.1
ES 1,2,3,4,6,7,8-HpCDF					%	74.9	77.4	86.5	77.7	110		71	93.1	88.2
ES 1,2,3,4,7,8,9-HpCDF					%	79.9	80.9	91.1	81.7	120		68.8	99.7	94.4
ES OCDF					%	74.1	74.2	84.1	77.2	106		60.2	89.4	85.7
SS 37Cl-2378-TCDD					%	120	106	99.3	104	128		106	104	104
SS 12347-PeCDD					%	121	108	101	108	131		101	105	105
SS 12346-PeCDF					%	119	120	110	112	116		106	108	103
SS 123469-HxCDF					%	104	100	105	98.7	153		93.4	115	112
SS 1234689-HpCDF					%	90.4	90.7	95.2	86.7	130		75.8	101	98.7
AS 1368-TCDD					%	111	98	95.6	95.8	123		88.9	94.8	93
AS 1368-TCDF					%	113	112	109	105	111		97.3	106	96.1
ITEF TEQ (ND=0; EMPC=0)					ng/kg	0.00921	0.00921	0.00921	0.00921	0.00921		0.194	0.0699	0.0283
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg	0.00921	0.00921	0.00921	0.00921	0.00921		0.288	0.125	0.0283
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg	0.0544	0.0544	0.0544	0.0544	0.0544		0.247	0.147	0.0881
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg	0.0544	0.0544	0.0544	0.0544	0.0544		0.341	0.202	0.0881
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg	0.0996	0.0996	0.0996	0.0996	0.0996		0.394	0.279	0.148
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg	0.00921	0.00921	0.00921	0.00921	0.00921		0.194	0.0699	0.0283
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg	0.00921	0.00921	0.00921	0.00921	0.00921		0.288	0.125	0.0283
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg	0.0601	0.0601	0.0601	0.0601	0.0601		0.215	0.158	0.0889
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg	0.0601	0.0601	0.0601	0.0601	0.0601		0.309	0.213	0.0889
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg	0.113	0.113	0.113	0.113	0.113		0.369	0.307	0.156

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	GCP-LT-7-1		GCP-LT-7-5		GCP-LT-7-10		GCP-LT-7-15		GCP-LT-8-1		GCP-LT-8-5		GCP-LT-8-10		GCP-LT-9-1		GCP-LT-9-5	
					LABSAMPID	P807020-25		P807020-26		P807020-27		P807020-28		P807020-19		P807020-20		P807020-21		P807020-22		P807020-23	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**
Method 6010 CAM 16 Metals					Unit																		
Antimony	0.37	3	-	4.54	mg/Kg	<	3	<	3	<	3				5.49		3.59		3.38		4.3		6.09
Arsenic	0.36	1	4.2	4.60	mg/Kg		5.01		3.92	<	1				4.06		5.03		1.5		8.14		3.65
Barium	0.23	1	-	44.51	mg/Kg		33.4		41		25.5				44.1		54.8		22		73.4		65
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		13.6		15		8.61				13.5		16.4		7.92		23.9		24.7
Cobalt	0.19	0.5	-	6.33	mg/Kg		6.48		7.99		4.13				6.46		7.1		3.48		11.3		9.43
Copper	0.31	1	-	11.84	mg/Kg		8.65		12.1		8.6				10.6		12.2		6.87		18.5		17.5
Lead	0.32	1	320	9.43	mg/Kg		2.7		7.11		3.18				4.35		12.6		2.21		8.35		18.5
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1			<	1	<	1	<	1	<	1	<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		9.22		11.1		6.96				9.3		10.6		5.98		17.8		17.6
Selenium	0.72	3	-	7.11	mg/Kg	<	3		3.41	<	3				6.57		7.16		3.7	<	3		6.75
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg		3.19	<	3	<	3			<	3	<	3	<	3	<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		28.4		30.1		16.5				27.9		31.2		16.1		42.7		35.1
Zinc	0.28	5	-	36.75	mg/Kg		24.2		30		20.2				30.4		34.5		15.8		53.4		41.8
EPA 7199 Hexavalent Chromium																							
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	<	0.4	<	0.4	<	0.4			<	0.4	<	0.4	<	0.4	<	0.4		0.492
EPA Method 7471A Mercury																							
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14			<	0.14	<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																							
PCB-1016	0.03	0.05	-	0.05	mg/Kg	<	0.05	<	0.05														
PCB-1232	0.10	0.05	-	0.05	mg/Kg	<	0.05	<	0.05														
PCB-1242	0.14	0.05	-	0.05	mg/Kg	<	0.05	<	0.05														
PCB-1248	0.19	0.05	-	0.05	mg/Kg	<	0.05	<	0.05														
PCB-1254	0.20	0.05	-	0.05	mg/Kg	<	0.05	<	0.05														
PCB-1260	0.07	0.05	-	0.05	mg/Kg	<	0.05	<	0.05														
PCB-1262	0.17	0.05	-	0.05	mg/Kg	<	0.05	<	0.05														
PCB-1268	0.09	0.05	-	0.05	mg/Kg	<	0.05	<	0.05														
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																							
C7-C8	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48										
C9-C10	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48										
C11-C12	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48										
C13-C14	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48										
C17-C18	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48										
C19-C20	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48										
C21-C22	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48										
C23-C24	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48										
C25-C27	1.56	2.48	-	2.48	mg/kg			<	2.48	<	2.48	<	2.48										
C28-C33	1.56	2.48	-	5.08	mg/kg			<	2.48	<	2.48	<	2.48										
C34-C40	1.56	2.48	-	2.71	mg/kg			<	2.48	<	2.48	<	2.48										
pH EPA Method 9045																							
pH				7.55	pH Units		8.45		8.37		8.35				7.25		7.98		8.17		8.24		8.74
Temperature				23.02	°C																		
Method 8270CM_PAH_SIM																							
1-Methylnaphthalene	3.7	10	-		ug/Kg																		
2-Methylnaphthalene	3.8	10	-		ug/Kg																		
Acenaphthylene	3.3	10	-		ug/Kg																		
Anthracene	1.2	10	-		ug/Kg																		
Benz(a)anthracene	1.1	10	-		ug/Kg																		
Benzo(a)pyrene	1.8	10	-		ug/Kg																		
Benzo(b)fluoranthene	1.7	10	-		ug/Kg																		
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg																		
Benzo(k)fluoranthene	1.7	10	-		ug/Kg																		
Chrysene	0.83	10	-		ug/Kg																		
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg																		
Fluoranthene	0.84	10	-		ug/Kg																		
Fluorene	1.3	10	-		ug/Kg																		
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg																		
Naphthalene	4	10	-		ug/Kg																		
Phenanthrene	1.4	10	-		ug/Kg																		
Pyrene	0.78	10	-		ug/Kg																		

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	GCP-LT-7-1		GCP-LT-7-5		GCP-LT-7-10		GCP-LT-7-15		GCP-LT-8-1		GCP-LT-8-5		GCP-LT-8-10		GCP-LT-9-1		GCP-LT-9-5	
					LABSAMPID	P807020-25		P807020-26		P807020-27		P807020-28		P807020-19		P807020-20		P807020-21		P807020-22		P807020-23	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**
SVOCs EPA Method 8270C																							
1,2,4-Trichlorobenzene	22	250	-		ug/Kg																		
1,2-Dichlorobenzene	37	250	-		ug/Kg																		
1,3-Dichlorobenzene	50	250	-		ug/Kg																		
1,4-Dichlorobenzene	31	250	-		ug/Kg																		
1-Methylnaphthalene	21	250	-		ug/Kg																		
2,4,5-Trichlorophenol	43	250	-		ug/Kg																		
2,4,6-Trichlorophenol	35	250	820000		ug/Kg																		
2,4-Dimethylphenol	100	250	-		ug/Kg																		
2,4-Dinitrophenol	23	1200	-		ug/Kg																		
2,4-Dinitrotoluene	14	250	-		ug/Kg																		
2,6-Dinitrotoluene	33	250	-		ug/Kg																		
2-Chloronaphthalene	15	250	-		ug/Kg																		
2-Chlorophenol	15	250	-		ug/Kg																		
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg																		
2-Nitroaniline	31	250	-		ug/Kg																		
2-Nitrophenol	16	250	-		ug/Kg																		
3 and 4-Methylphenol (m and p-Cresol)	19	400	-		ug/Kg																		
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg																		
3-Nitroaniline	37	250	-		ug/Kg																		
4-Bromophenyl phenyl ether	24	250	-		ug/Kg																		
4-Chloro-3-methylphenol	18	250	-		ug/Kg																		
4-Chloroaniline	73	250	-		ug/Kg																		
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg																		
4-Nitroaniline	148	250	-		ug/Kg																		
4-Nitrophenol	117	250	-		ug/Kg																		
Acenaphthene	25	250	-		ug/Kg																		
Acenaphthylene	20	250	-		ug/Kg																		
Aniline	101	250	-		ug/Kg																		
Anthracene	23	250	-		ug/Kg																		
Azobenzene	67	250	-		ug/Kg																		
Benz(a)anthracene	22	250	-		ug/Kg																		
Benzidine	23	1200	2500000		ug/Kg																		
Benzo(a)pyrene	25	250	-		ug/Kg																		
Benzo(b)fluoranthene	27	250	-		ug/Kg																		
Benzo(g,h,i)perylene	29	250	-		ug/Kg																		
Benzo(k)fluoranthene	32	250	-		ug/Kg																		
Benzoic acid	36	1200	-		ug/Kg																		
Benzyl alcohol	36	250	-		ug/Kg																		
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg																		
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg																		
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg																		
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg																		
Butylbenzyl Phthalate	44	250	-		ug/Kg																		
Carbazole	23	250	-		ug/Kg																		
Chrysene	20	250	-		ug/Kg																		
Dibenz(a,h)anthracene	21	250	-		ug/Kg																		
Dibenzofuran	14	250	-		ug/Kg																		
Diethyl phthalate	24	250	-		ug/Kg																		
Dimethyl phthalate	22	250	-		ug/Kg																		
Di-n-butyl phthalate	67	250	-		ug/Kg																		
Di-n-octyl phthalate	23	250	-		ug/Kg																		
Fluoranthene	21	250	-		ug/Kg																		
Fluorene	27	250	-		ug/Kg																		
Hexachlorobenzene	15	250	-		ug/Kg																		
Hexachlorobutadiene	39	250	160000		ug/Kg																		
Hexachlorocyclopentadiene	14	1200	-		ug/Kg																		
Hexachloroethane	43	250	-		ug/Kg																		
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg																		
Isophorone	25	250	-		ug/Kg																		
Naphthalene	25	250	-		ug/Kg																		
Nitrobenzene	21	1200	-		ug/Kg																		
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg																		
N-Nitrosodiphenylamine	24	250	-		ug/Kg																		
Pentachlorophenol	55	1200	-		ug/Kg																		

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	GCP-LT-7-1		GCP-LT-7-5		GCP-LT-7-10		GCP-LT-7-15		GCP-LT-8-1		GCP-LT-8-5		GCP-LT-8-10		GCP-LT-9-1		GCP-LT-9-5	
					LABSAMPID	P807020-25		P807020-26		P807020-27		P807020-28		P807020-19		P807020-20		P807020-21		P807020-22		P807020-23	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**
SVOCs EPA Method 8270C																							
Phenanthrene	22	250	-		ug/Kg																		
Phenol	26	250	-		ug/Kg																		
Total Cresol	400	400	-		ug/Kg																		
EPA Method 8290 Dioxins																							
2,3,7,8-TCDD					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
1,2,3,7,8-PeCDD					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
1,2,3,4,7,8-HxCDD					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
1,2,3,6,7,8-HxCDD					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
1,2,3,7,8,9-HxCDD					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
1,2,3,4,6,7,8-HpCDD					ng/kg		ND		ND		ND				0.444		ND		ND		ND		0.38
OCDD					ng/kg		ND		ND		ND				2.64		ND		ND		0.913		EMPC
2,3,7,8-TCDF					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
1,2,3,7,8-PeCDF					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
2,3,4,7,8-PeCDF					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
1,2,3,4,7,8-HxCDF					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
1,2,3,6,7,8-HxCDF					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
2,3,4,6,7,8-HxCDF					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
1,2,3,7,8,9-HxCDF					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
1,2,3,4,6,7,8-HpCDF					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
1,2,3,4,7,8,9-HpCDF					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
OCDF					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
Total TCDDs					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
Total PeCDDs					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
Total HxCDDs					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
Total HpCDDs					ng/kg		ND		ND		ND				0.967		ND		ND		ND		0.662
Total TCDFs					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
Total PeCDFs					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
Total HxCDFs					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
Total HpCDFs					ng/kg		ND		ND		ND				ND		ND		ND		ND		ND
ES 2,3,7,8-TCDD					%		93.9		88.1		92.8				83.6		90.2		87.8		83.3		94.3
ES 1,2,3,7,8-PeCDD					%		88.7		83.9		90.8				79.5		88		83.6		77.9		90.7
ES 1,2,3,4,7,8-HxCDD					%		79.8		70.1		80				77.6		81.6		80.4		79.2		82.7
ES 1,2,3,6,7,8-HxCDD					%		82.6		69		81				77.6		83.4		79.7		76.2		84.9
ES 1,2,3,7,8,9-HxCDD					%		83.5		70.3		78.3				76.1		81		80.8		80.2		86.2
ES 1,2,3,4,6,7,8-HpCDD					%		84.2		73.6		82.5				82.1		83.4		82.7		79.9		85.6
ES OCDD					%		79.7		72.6		82.6				80.1		83.3		80.5		77.9		82
ES 2,3,7,8-TCDF					%		100		100		98.9				100		99.8		100		100		99.1
ES 1,2,3,7,8-PeCDF					%		97.4		102		96.9				102		98.3		102		97.1		103
ES 2,3,4,7,8-PeCDF					%		98.7		103		98.6				103		97.4		102		102		104
ES 1,2,3,4,7,8-HxCDF					%		80.6		68.9		79.1				78.2		79.1		79.8		78.9		84.3
ES 1,2,3,6,7,8-HxCDF					%		80.9		70.7		81.8				80.1		81.3		78.8		80		84.6
ES 2,3,4,6,7,8-HxCDF					%		84.3		70.8		80.9				79.3		83.8		79.8		79.1		86
ES 1,2,3,7,8,9-HxCDF					%		86.8		78.6		82.1				82.2		91.2		83.5		82.6		92.5
ES 1,2,3,4,6,7,8-HpCDF					%		82.6		74.3		81.1				82.6		85.1		82.3		81.2		86.9
ES 1,2,3,4,7,8,9-HpCDF					%		87.3		77.8		86.9				85.6		87.6		86.3		84.3		91.1
ES OCDF					%		79.5		76		83.6				82.2		84.8		83.8		77.9		85
SS 37Cl-2378-TCDD					%		96.7		101		100				93.8		97		100		98.7		96.7
SS 12347-PeCDD					%		96.5		103		100				93.7		98		98.2		96.9		98.3
SS 12346-PeCDF					%		101		119		106				117		109		116		117		106
SS 123469-HxCDF					%		93		94.3		95.6				103		99.7		97.9		103		99
SS 1234689-HpCDF					%		89.5		84.6		88.2				94.9		94.9		94.1		95.4		93.2
AS 1368-TCDD					%		98.5		97.5		97.8				96.4		92.9		95.8		93.8		95.3
AS 1368-TCDF					%		103		111		104				113		104		112		112		103
ITEF TEQ (ND=0; EMPC=0)					ng/kg		0		0		0				0.00708		0		0		0.000913		0.00388
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg		0		0		0				0.00708		0		0		0.000913		0.00526
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg		0.0502		0.0541		0.0456				0.0678		0.0541		0.0409		0.0514		0.0566
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg		0.0502		0.0541		0.0456				0.0678		0.0541		0.0409		0.0514		0.0579
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg		0.1		0.108		0.0912				0.128		0.108		0.0819		0.102		0.111
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg		0		0		0				0.00708		0		0		0.000913		0.00388
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg		0		0		0				0.00708		0		0		0.000913		0.00526
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg		0.0567		0.0654		0.0549				0.0767		0.0629		0.049		0.0635		0.0674
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg		0.0567		0.0654		0.0549				0.0767		0.0629		0.049		0.0635		0.0678
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg		0.113		0.131		0.11				0.148		0.126		0.098		0.127		0.131

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME		GCP-LT-9-10		GCP-LT-10-1		GCP-LT-10-5		GCP-LT-10-10		GCP-LT-10-15		GCP-LT-11-1		GCP-LT-11-5		GCP-LT-11-10
					LABSAMPID		P807020-24		P807022-01		P807022-02		P807022-03		P807022-04		P807022-05		P807022-06		P807022-07
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**
Method 6010 CAM 16 Metals					Unit																
Antimony	0.37	3	-	4.54	mg/Kg		3.13	<	3	<	3	<	3			<	3	<	3	<	3
Arsenic	0.36	1	4.2	4.60	mg/Kg		5.17	<	1		3.41		4				1.85		3.83		2.86
Barium	0.23	1	-	44.51	mg/Kg		62.5		24.7		30		37.7				27.3		35.4		24.6
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		26.9		6.78		10.5		12.9				7.97		12.5		8.74
Cobalt	0.19	0.5	-	6.33	mg/Kg		10.4		3.42		4.93		6.39				4.09		6.12		4.51
Copper	0.31	1	-	11.84	mg/Kg		18.9		5.59		6.18		6.97				6.56		6.68		6.27
Lead	0.32	1	320	9.43	mg/Kg		16.7		2.24		3.61		3.46				8.6		3.37		2.37
Molybdenum	0.13	1	-	1.00	mg/Kg		1.04	<	1	<	1	<	1			<	1	<	1	<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		19.6		5.66		7.67		10.1				6.34		8.94		6.5
Selenium	0.72	3	-	7.11	mg/Kg		4.62	<	3	<	3	<	3			<	3	<	3	<	3
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	<	3	<	3			<	3	<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		37		12.9		21.5		27.2				14		26.4		19.8
Zinc	0.28	5	-	36.75	mg/Kg		44.9		14.3		18.2		25.4				22.8		20.6		13.9
EPA 7199 Hexavalent Chromium																					
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg		8.35	<	0.4	<	0.4	<	0.4			<	0.4	<	0.4	<	0.4
EPA Method 7471A Mercury																					
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14	<	0.14			<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																					
PCB-1016	0.03	0.05	-	0.05	mg/Kg			<	0.05	<	0.05					<	0.05	<	0.05		
PCB-1232	0.10	0.05	-	0.05	mg/Kg			<	0.05	<	0.05					<	0.05	<	0.05		
PCB-1242	0.14	0.05	-	0.05	mg/Kg			<	0.05	<	0.05					<	0.05	<	0.05		
PCB-1248	0.19	0.05	-	0.05	mg/Kg			<	0.05	<	0.05					<	0.05	<	0.05		
PCB-1254	0.20	0.05	-	0.05	mg/Kg			<	0.05	<	0.05					<	0.05	<	0.05		
PCB-1260	0.07	0.05	-	0.05	mg/Kg			<	0.05	<	0.05					<	0.05	<	0.05		
PCB-1262	0.17	0.05	-	0.05	mg/Kg			<	0.05	<	0.05					<	0.05	<	0.05		
PCB-1268	0.09	0.05	-	0.05	mg/Kg			<	0.05	<	0.05					<	0.05	<	0.05		
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																					
C7-C8	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C9-C10	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C11-C12	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C13-C14	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C17-C18	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C19-C20	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C21-C22	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C23-C24	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C25-C27	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C28-C33	1.56	2.48	-	5.08	mg/kg					<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
C34-C40	1.56	2.48	-	2.71	mg/kg					<	2.48	<	2.48	<	2.48			<	2.48	<	2.48
pH EPA Method 9045																					
pH				7.55	pH Units		8.23		9.34		9.3		7.78				6.41		6.87		6.99
Temperature				23.02	°C																
Method 8270CM_PAH_SIM																					
1-Methylnaphthalene	3.7	10	-		ug/Kg																
2-Methylnaphthalene	3.8	10	-		ug/Kg																
Acenaphthylene	3.3	10	-		ug/Kg																
Anthracene	1.2	10	-		ug/Kg																
Benz(a)anthracene	1.1	10	-		ug/Kg																
Benzo(a)pyrene	1.8	10	-		ug/Kg																
Benzo(b)fluoranthene	1.7	10	-		ug/Kg																
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg																
Benzo(k)fluoranthene	1.7	10	-		ug/Kg																
Chrysene	0.83	10	-		ug/Kg																
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg																
Fluoranthene	0.84	10	-		ug/Kg																
Fluorene	1.3	10	-		ug/Kg																
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg																
Naphthalene	4	10	-		ug/Kg																
Phenanthrene	1.4	10	-		ug/Kg																
Pyrene	0.78	10	-		ug/Kg																

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	GCP-LT-9-10		GCP-LT-10-1		GCP-LT-10-5		GCP-LT-10-10		GCP-LT-10-15		GCP-LT-11-1		GCP-LT-11-5		GCP-LT-11-10	
					LABSAMPID	P807020-24		P807022-01		P807022-02		P807022-03		P807022-04		P807022-05		P807022-06		P807022-07	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**
SVOCs EPA Method 8270C																					
1,2,4-Trichlorobenzene	22	250	-		ug/Kg																
1,2-Dichlorobenzene	37	250	-		ug/Kg																
1,3-Dichlorobenzene	50	250	-		ug/Kg																
1,4-Dichlorobenzene	31	250	-		ug/Kg																
1-Methylnaphthalene	21	250	-		ug/Kg																
2,4,5-Trichlorophenol	43	250	-		ug/Kg																
2,4,6-Trichlorophenol	35	250	820000		ug/Kg																
2,4-Dimethylphenol	100	250	-		ug/Kg																
2,4-Dinitrophenol	23	1200	-		ug/Kg																
2,4-Dinitrotoluene	14	250	-		ug/Kg																
2,6-Dinitrotoluene	33	250	-		ug/Kg																
2-Chloronaphthalene	15	250	-		ug/Kg																
2-Chlorophenol	15	250	-		ug/Kg																
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg																
2-Nitroaniline	31	250	-		ug/Kg																
2-Nitrophenol	16	250	-		ug/Kg																
3 and 4-Methylphenol (m and p-Cresol)	19	400	-		ug/Kg																
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg																
3-Nitroaniline	37	250	-		ug/Kg																
4-Bromophenyl phenyl ether	24	250	-		ug/Kg																
4-Chloro-3-methylphenol	18	250	-		ug/Kg																
4-Chloroaniline	73	250	-		ug/Kg																
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg																
4-Nitroaniline	148	250	-		ug/Kg																
4-Nitrophenol	117	250	-		ug/Kg																
Acenaphthene	25	250	-		ug/Kg																
Acenaphthylene	20	250	-		ug/Kg																
Aniline	101	250	-		ug/Kg																
Anthracene	23	250	-		ug/Kg																
Azobenzene	67	250	-		ug/Kg																
Benz(a)anthracene	22	250	-		ug/Kg																
Benzidine	23	1200	2500000		ug/Kg																
Benzo(a)pyrene	25	250	-		ug/Kg																
Benzo(b)fluoranthene	27	250	-		ug/Kg																
Benzo(g,h,i)perylene	29	250	-		ug/Kg																
Benzo(k)fluoranthene	32	250	-		ug/Kg																
Benzoic acid	36	1200	-		ug/Kg																
Benzyl alcohol	36	250	-		ug/Kg																
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg																
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg																
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg																
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg																
Butylbenzyl Phthalate	44	250	-		ug/Kg																
Carbazole	23	250	-		ug/Kg																
Chrysene	20	250	-		ug/Kg																
Dibenz(a,h)anthracene	21	250	-		ug/Kg																
Dibenzofuran	14	250	-		ug/Kg																
Diethyl phthalate	24	250	-		ug/Kg																
Dimethyl phthalate	22	250	-		ug/Kg																
Di-n-butyl phthalate	67	250	-		ug/Kg																
Di-n-octyl phthalate	23	250	-		ug/Kg																
Fluoranthene	21	250	-		ug/Kg																
Fluorene	27	250	-		ug/Kg																
Hexachlorobenzene	15	250	-		ug/Kg																
Hexachlorobutadiene	39	250	160000		ug/Kg																
Hexachlorocyclopentadiene	14	1200	-		ug/Kg																
Hexachloroethane	43	250	-		ug/Kg																
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg																
Isophorone	25	250	-		ug/Kg																
Naphthalene	25	250	-		ug/Kg																
Nitrobenzene	21	1200	-		ug/Kg																
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg																
N-Nitrosodiphenylamine	24	250	-		ug/Kg																
Pentachlorophenol	55	1200	-		ug/Kg																

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	GCP-LT-9-10		GCP-LT-10-1		GCP-LT-10-5		GCP-LT-10-10		GCP-LT-10-15		GCP-LT-11-1		GCP-LT-11-5		GCP-LT-11-10	
					LABSAMPID	P807020-24		P807022-01		P807022-02		P807022-03		P807022-04		P807022-05		P807022-06		P807022-07	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**	**<**	**N/E/S Berms**
SVOCs EPA Method 8270C																					
Phenanthrene	22	250	-		ug/Kg																
Phenol	26	250	-		ug/Kg																
Total Cresol	400	400	-		ug/Kg																
EPA Method 8290 Dioxins																					
2,3,7,8-TCDD					ng/kg		ND		ND		ND		ND				ND		ND		ND
1,2,3,7,8-PeCDD					ng/kg		ND		ND		ND		ND				ND		ND		ND
1,2,3,4,7,8-HxCDD					ng/kg		ND		ND		ND		ND				ND		ND		ND
1,2,3,6,7,8-HxCDD					ng/kg		ND		ND		ND		ND				ND		ND		ND
1,2,3,7,8,9-HxCDD					ng/kg		ND		0.072		ND		0.106				ND		ND		ND
1,2,3,4,6,7,8-HpCDD					ng/kg		0.735		ND		ND		ND				0.102		ND		0.174
OCDD					ng/kg		EMPC		0.37		ND		0.269				0.519		0.223		1.03
2,3,7,8-TCDF					ng/kg		ND		ND		ND		ND				ND		ND		ND
1,2,3,7,8-PeCDF					ng/kg		ND		ND		ND		ND				ND		ND		ND
2,3,4,7,8-PeCDF					ng/kg		ND		ND		ND		ND				ND		ND		ND
1,2,3,4,7,8-HxCDF					ng/kg		ND		ND		ND		ND				ND		ND		ND
1,2,3,6,7,8-HxCDF					ng/kg		ND		ND		ND		ND				ND		ND		ND
2,3,4,6,7,8-HxCDF					ng/kg		ND		ND		ND		ND				ND		ND		ND
1,2,3,7,8,9-HxCDF					ng/kg		ND		ND		ND		ND				ND		ND		ND
1,2,3,4,6,7,8-HpCDF					ng/kg		ND		EMPC		ND		ND				ND		ND		ND
1,2,3,4,7,8,9-HpCDF					ng/kg		ND		ND		ND		ND				ND		ND		ND
OCDF					ng/kg		ND		ND		ND		ND				ND		ND		ND
Total TCDDs					ng/kg		ND		0.0728		ND		ND				0.0549		ND		ND
Total PeCDDs					ng/kg		ND		ND		ND		ND				ND		ND		ND
Total HxCDDs					ng/kg		ND		0.072		ND		0.106				ND		ND		ND
Total HpCDDs					ng/kg		1.47		0.121		0.108		0.101				0.223		ND		0.392
Total TCDFs					ng/kg		ND		0.0837		ND		ND				0.0573		ND		ND
Total PeCDFs					ng/kg		ND		ND		ND		ND				ND		ND		ND
Total HxCDFs					ng/kg		ND		0.136		ND		ND				ND		ND		ND
Total HpCDFs					ng/kg		ND		0.0395		ND		ND				ND		ND		ND
ES 2,3,7,8-TCDD					%		90.8		84.20		89.2		90.8				89.6		90.8		85.1
ES 1,2,3,7,8-PeCDD					%		86.5		86.80		88.5		89.2				92.4		92.4		85.7
ES 1,2,3,4,7,8-HxCDD					%		81.3		92.40		88.5		83.1				88.8		84.6		81.5
ES 1,2,3,6,7,8-HxCDD					%		76.6		78.9		81.8		80				84.3		78.3		77.1
ES 1,2,3,7,8,9-HxCDD					%		81.8		82		81.7		83.1				87.4		78.9		77.1
ES 1,2,3,4,6,7,8-HpCDD					%		79.5		78.8		78.8		78.9				81.4		78.8		80
ES OCDD					%		77.7		71.3		73.1		73.8				78		71.2		74
ES 2,3,7,8-TCDF					%		100		100		100		100				100		100		101
ES 1,2,3,7,8-PeCDF					%		102		105		108		107				109		107		108
ES 2,3,4,7,8-PeCDF					%		102		103		102		104				105		107		100
ES 1,2,3,4,7,8-HxCDF					%		76.5		76.1		78.5		77.7				82.1		76.5		75.2
ES 1,2,3,6,7,8-HxCDF					%		77.9		78.7		80.5		81				83.4		79.2		77.9
ES 2,3,4,6,7,8-HxCDF					%		78.8		77.8		79.2		79.3				83		77.3		77.5
ES 1,2,3,7,8,9-HxCDF					%		84.9		95.4		92.2		84.2				88.5		86.9		86.1
ES 1,2,3,4,6,7,8-HpCDF					%		80.3		79		80.5		79.4				80.4		77.6		79.7
ES 1,2,3,4,7,8,9-HpCDF					%		84.2		79.9		79.6		78.8				83.6		77.5		78.1
ES OCDF					%		80.4		74.3		72		75.2				78.8		73.2		76.1
SS 37Cl-2378-TCDD					%		101		97.8		96.9		92.4				97.6		100		98.5
SS 12347-PeCDD					%		101		101		99.4		94.4				100		103		99.9
SS 12346-PeCDF					%		111		114		108		101				106		111		115
SS 123469-HxCDF					%		100		99.3		98.5		90.4				101		95.6		98.5
SS 1234689-HpCDF					%		91.9		91.1		87.9		80.2				88.7		86		91.3
AS 1368-TCDD					%		92.9		98.1		93.4		90.3				96.5		98		94.4
AS 1368-TCDF					%		105		116		106		99.3				102		111		108
ITEF TEQ (ND=0; EMPC=0)					ng/kg		0.00748		0.00769		0		0.00256				0.000911		0.0000305		0.00139
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg		0.0114		0.00797		0		0.0108				0.00153		0.000223		0.00277
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg		0.0667		0.0232		0.0221		0.0205				0.0189		0.023		0.0265
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg		0.0706		0.0234		0.0221		0.0287				0.0195		0.0232		0.0279
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg		0.13		0.0389		0.0443		0.0466				0.0375		0.0462		0.053
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg		0.00748		0.00769		0		0.00256				0.000911		0.0000305		0.00139
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg		0.0114		0.00797		0		0.0108				0.00153		0.000223		0.00277
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg		0.0764		0.0267		0.0276		0.0242				0.022		0.029		0.032
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg		0.0776		0.0269		0.0276		0.0325				0.0226		0.029		0.0334
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg		0.147		0.0462		0.0552		0.0544				0.0441		0.058		0.0647

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	GCP-LT-11-15	
					LABSAMPID	P807022-08	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**<**	**N/E/S Berms**
Method 6010 CAM 16 Metals					**Unit**		
Antimony	0.37	3	-	4.54	mg/Kg		
Arsenic	0.36	1	4.2	4.60	mg/Kg		
Barium	0.23	1	-	44.51	mg/Kg		
Beryllium	0.17	0.5	210	0.50	mg/Kg		
Cadmium	0.21	0.5	7.3	0.50	mg/Kg		
Chromium	0.13	1	170000	13.95	mg/Kg		
Cobalt	0.19	0.5	-	6.33	mg/Kg		
Copper	0.31	1	-	11.84	mg/Kg		
Lead	0.32	1	320	9.43	mg/Kg		
Molybdenum	0.13	1	-	1.00	mg/Kg		
Nickel	0.2	1.5	3100	10.03	mg/Kg		
Selenium	0.72	3	-	7.11	mg/Kg		
Silver	0.13	0.5	1500	0.50	mg/Kg		
Thallium	0.42	3	-	3.00	mg/Kg		
Vanadium	0.37	0.5	1000	24.05	mg/Kg		
Zinc	0.28	5	-	36.75	mg/Kg		
EPA 7199 Hexavalent Chromium							
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg		
EPA Method 7471A Mercury							
Mercury	0.02	0.14	4.4	0.14	mg/Kg		
PCBs EPA Method 8082							
PCB-1016	0.03	0.05	-	0.05	mg/Kg		
PCB-1232	0.10	0.05	-	0.05	mg/Kg		
PCB-1242	0.14	0.05	-	0.05	mg/Kg		
PCB-1248	0.19	0.05	-	0.05	mg/Kg		
PCB-1254	0.20	0.05	-	0.05	mg/Kg		
PCB-1260	0.07	0.05	-	0.05	mg/Kg		
PCB-1262	0.17	0.05	-	0.05	mg/Kg		
PCB-1268	0.09	0.05	-	0.05	mg/Kg		
TPH Carbon Chain C7-C40 EPA Method 8015B (M)							
C7-C8	1.56	2.48	-	2.48	mg/kg	<	2.48
C9-C10	1.56	2.48	-	2.48	mg/kg	<	2.48
C11-C12	1.56	2.48	-	2.48	mg/kg	<	2.48
C13-C14	1.56	2.48	-	2.48	mg/kg	<	2.48
C17-C18	1.56	2.48	-	2.48	mg/kg	<	2.48
C19-C20	1.56	2.48	-	2.48	mg/kg	<	2.48
C21-C22	1.56	2.48	-	2.48	mg/kg	<	2.48
C23-C24	1.56	2.48	-	2.48	mg/kg	<	2.48
C25-C27	1.56	2.48	-	2.48	mg/kg	<	2.48
C28-C33	1.56	2.48	-	5.08	mg/kg	<	2.48
C34-C40	1.56	2.48	-	2.71	mg/kg	<	2.48
pH EPA Method 9045							
pH				7.55	pH Units		
Temperature				23.02	°C		
Method 8270CM_PAH_SIM							
1-Methylnaphthalene	3.7	10	-		ug/Kg		
2-Methylnaphthalene	3.8	10	-		ug/Kg		
Acenaphthylene	3.3	10	-		ug/Kg		
Anthracene	1.2	10	-		ug/Kg		
Benz(a)anthracene	1.1	10	-		ug/Kg		
Benzo(a)pyrene	1.8	10	-		ug/Kg		
Benzo(b)fluoranthene	1.7	10	-		ug/Kg		
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg		
Benzo(k)fluoranthene	1.7	10	-		ug/Kg		
Chrysene	0.83	10	-		ug/Kg		
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg		
Fluoranthene	0.84	10	-		ug/Kg		
Fluorene	1.3	10	-		ug/Kg		
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg		
Naphthalene	4	10	-		ug/Kg		
Phenanthrene	1.4	10	-		ug/Kg		
Pyrene	0.78	10	-		ug/Kg		

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	GCP-LT-11-15	
					LABSAMPID	P807022-08	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**<**	**N/E/S Berms**
SVOCs EPA Method 8270C							
1,2,4-Trichlorobenzene	22	250	-		ug/Kg		
1,2-Dichlorobenzene	37	250	-		ug/Kg		
1,3-Dichlorobenzene	50	250	-		ug/Kg		
1,4-Dichlorobenzene	31	250	-		ug/Kg		
1-Methylnaphthalene	21	250	-		ug/Kg		
2,4,5-Trichlorophenol	43	250	-		ug/Kg		
2,4,6-Trichlorophenol	35	250	820000		ug/Kg		
2,4-Dimethylphenol	100	250	-		ug/Kg		
2,4-Dinitrophenol	23	1200	-		ug/Kg		
2,4-Dinitrotoluene	14	250	-		ug/Kg		
2,6-Dinitrotoluene	33	250	-		ug/Kg		
2-Chloronaphthalene	15	250	-		ug/Kg		
2-Chlorophenol	15	250	-		ug/Kg		
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg		
2-Nitroaniline	31	250	-		ug/Kg		
2-Nitrophenol	16	250	-		ug/Kg		
3 and 4-Methylphenol (m and p-Cresol)	19	400	-		ug/Kg		
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg		
3-Nitroaniline	37	250	-		ug/Kg		
4-Bromophenyl phenyl ether	24	250	-		ug/Kg		
4-Chloro-3-methylphenol	18	250	-		ug/Kg		
4-Chloroaniline	73	250	-		ug/Kg		
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg		
4-Nitroaniline	148	250	-		ug/Kg		
4-Nitrophenol	117	250	-		ug/Kg		
Acenaphthene	25	250	-		ug/Kg		
Acenaphthylene	20	250	-		ug/Kg		
Aniline	101	250	-		ug/Kg		
Anthracene	23	250	-		ug/Kg		
Azobenzene	67	250	-		ug/Kg		
Benz(a)anthracene	22	250	-		ug/Kg		
Benzidine	23	1200	2500000		ug/Kg		
Benzo(a)pyrene	25	250	-		ug/Kg		
Benzo(b)fluoranthene	27	250	-		ug/Kg		
Benzo(g,h,i)perylene	29	250	-		ug/Kg		
Benzo(k)fluoranthene	32	250	-		ug/Kg		
Benzoic acid	36	1200	-		ug/Kg		
Benzyl alcohol	36	250	-		ug/Kg		
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg		
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg		
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg		
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg		
Butylbenzyl Phthalate	44	250	-		ug/Kg		
Carbazole	23	250	-		ug/Kg		
Chrysene	20	250	-		ug/Kg		
Dibenz(a,h)anthracene	21	250	-		ug/Kg		
Dibenzofuran	14	250	-		ug/Kg		
Diethyl phthalate	24	250	-		ug/Kg		
Dimethyl phthalate	22	250	-		ug/Kg		
Di-n-butyl phthalate	67	250	-		ug/Kg		
Di-n-octyl phthalate	23	250	-		ug/Kg		
Fluoranthene	21	250	-		ug/Kg		
Fluorene	27	250	-		ug/Kg		
Hexachlorobenzene	15	250	-		ug/Kg		
Hexachlorobutadiene	39	250	160000		ug/Kg		
Hexachlorocyclopentadiene	14	1200	-		ug/Kg		
Hexachloroethane	43	250	-		ug/Kg		
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg		
Isophorone	25	250	-		ug/Kg		
Naphthalene	25	250	-		ug/Kg		
Nitrobenzene	21	1200	-		ug/Kg		
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg		
N-Nitrosodiphenylamine	24	250	-		ug/Kg		
Pentachlorophenol	55	1200	-		ug/Kg		

Table 9: Laboratory Analytical Data - Grey Cement Plant
Agua Mansa Commerce Park

					SAMPLENAME	GCP-LT-11-15	
					LABSAMPID	P807022-08	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Feature**	**<**	**N/E/S Berms**
SVOCs EPA Method 8270C							
Phenanthrene	22	250	-		ug/Kg		
Phenol	26	250	-		ug/Kg		
Total Cresol	400	400	-		ug/Kg		
EPA Method 8290 Dioxins							
2,3,7,8-TCDD					ng/kg		
1,2,3,7,8-PeCDD					ng/kg		
1,2,3,4,7,8-HxCDD					ng/kg		
1,2,3,6,7,8-HxCDD					ng/kg		
1,2,3,7,8,9-HxCDD					ng/kg		
1,2,3,4,6,7,8-HpCDD					ng/kg		
OCDD					ng/kg		
2,3,7,8-TCDF					ng/kg		
1,2,3,7,8-PeCDF					ng/kg		
2,3,4,7,8-PeCDF					ng/kg		
1,2,3,4,7,8-HxCDF					ng/kg		
1,2,3,6,7,8-HxCDF					ng/kg		
2,3,4,6,7,8-HxCDF					ng/kg		
1,2,3,7,8,9-HxCDF					ng/kg		
1,2,3,4,6,7,8-HpCDF					ng/kg		
1,2,3,4,7,8,9-HpCDF					ng/kg		
OCDF					ng/kg		
Total TCDDs					ng/kg		
Total PeCDDs					ng/kg		
Total HxCDDs					ng/kg		
Total HpCDDs					ng/kg		
Total TCDFs					ng/kg		
Total PeCDFs					ng/kg		
Total HxCDFs					ng/kg		
Total HpCDFs					ng/kg		
ES 2,3,7,8-TCDD					%		
ES 1,2,3,7,8-PeCDD					%		
ES 1,2,3,4,7,8-HxCDD					%		
ES 1,2,3,6,7,8-HxCDD					%		
ES 1,2,3,7,8,9-HxCDD					%		
ES 1,2,3,4,6,7,8-HpCDD					%		
ES OCDD					%		
ES 2,3,7,8-TCDF					%		
ES 1,2,3,7,8-PeCDF					%		
ES 2,3,4,7,8-PeCDF					%		
ES 1,2,3,4,7,8-HxCDF					%		
ES 1,2,3,6,7,8-HxCDF					%		
ES 2,3,4,6,7,8-HxCDF					%		
ES 1,2,3,7,8,9-HxCDF					%		
ES 1,2,3,4,6,7,8-HpCDF					%		
ES 1,2,3,4,7,8,9-HpCDF					%		
ES OCDF					%		
SS 37Cl-2378-TCDD					%		
SS 12347-PeCDD					%		
SS 12346-PeCDF					%		
SS 123469-HxCDF					%		
SS 1234689-HpCDF					%		
AS 1368-TCDD					%		
AS 1368-TCDF					%		
ITEF TEQ (ND=0; EMPC=0)					ng/kg		
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg		
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg		
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg		
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg		
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg		
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg		
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg		
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg		
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg		

Table 10: Laboratory Analytical Data - Material Storage Area
Agua Mansa Commerce Park

					SAMPLENAME	SW-8-1		SW-8-1-other		SW-8-5		SW-9-1		SW-9-5		SW-10-1		SW-10-5		SW-10-5-White		SW-13-1		SW-13-1-White		SW-13-5
					SAMPDATE	07/18/2018 08:20:00		07/18/2018 08:15:00		07/18/2018 08:15:00		07/17/2018 14:30:00		07/17/2018 14:35:00		07/17/2018 11:55:00		07/17/2018 12:00:00		07/17/2018 12:00:00		07/17/2018 13:00:00		07/17/2018 13:05:00		07/17/2018 13:05:00
					Feature		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**																					
Method 6010 CAM 16 Metals																										
Antimony	0.37	3	-	4.54	mg/Kg	<	3		4.92		8.52	<	3	<	3	<	3	<	3	<	3		4.01	<	3	<	3
Arsenic	0.36	1	4.2	4.60	mg/Kg		5.67		13.6		6.91		3.7		1.28		2.44		5.08		25.6		3.71		32.1		1.41
Barium	0.23	1	-	44.51	mg/Kg		30.7		131		48.8		35.5		31.4		38.3		49		96.3		72.7		85.4		32.6
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5		4.44		0.96		0.62	<	0.5	<	0.5	<	0.5		13.1		0.61		11.4	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		16.4		15.2		13.2		13		11.2		12.5		11.1		15.8		10.9		12.1		8.63
Cobalt	0.19	0.5	-	6.33	mg/Kg		4.7		5.82		5.85		5.06		5.27		5.2		5.46		2.73		3.2		4.07		3.84
Copper	0.31	1	-	11.84	mg/Kg		10.9		27.2		16.2		10.8		8.6		12.3		8.85		16.6		12.9		21.8		7.39
Lead	0.32	1	320	9.43	mg/Kg		9.22		69.2		53.1		17.9		3.36		19.7		15.1		**183**		19.4		**125**		46
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1	<	1	<	1	<	1	<	1		2.29	<	1	<	1	<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		6.87		12.8		8.48		8.23		8.22		7.97		8.23		5.76		5.62		5.58		5.93
Selenium	0.72	3	-	7.11	mg/Kg		4.65		8.6		5.01		6.5		3.46	<	3	<	3		14.8		9.33		17		6.51
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5		0.76	<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3		3.27	<	3	<	3	<	3	<	3		3.18	<	3	<	3	<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		21.8		34.7		23.5		21.4		21.5		22.2		23.5		19.2		15.2		17		20.1
Zinc	0.28	5	-	36.75	mg/Kg		23.8		75.4		40.5		37.6		28.7		30.4		31.7		145		32.2		138		27.9
EPA 7199 Hexavalent Chromium																										
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg		0.767		5.29	<	0.4		0.705	<	0.4	<	0.49	<	0.4		2.41		1.7		2.12	<	0.4
EPA Method 7471A Mercury																										
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14		0.16	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																										
PCB-1016	0.03	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05						
PCB-1221	0.14	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05						
PCB-1232	0.10	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05						
PCB-1242	0.14	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05						
PCB-1248	0.19	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05						
PCB-1254	0.20	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05						
PCB-1260	0.07	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05						
PCB-1262	0.17	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05						
PCB-1268	0.09	0.05	-	0.05	mg/Kg							<	0.05	<	0.05	<	0.05	<	0.05	<	0.05						
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																										
C7-C8	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48	<	2.48	<	2.48						
C9-C10	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48	<	2.48	<	2.48						
C11-C12	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48	<	2.48	<	2.48						
C13-C14	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48	<	2.48	<	2.48	<	2.48						
C15-C16	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48		6.83	<	2.48	<	2.48						
C17-C18	1.56	2.48	-	2.48	mg/kg							<	2.48		3.32		16.5	<	2.48	<	2.48						
C19-C20	1.56	2.48	-	2.48	mg/kg							<	2.48		5.99		21.4	<	2.48	<	2.48						
C21-C22	1.56	2.48	-	2.48	mg/kg							<	2.48		10.8		28.4	<	2.48	<	2.48						
C23-C24	1.56	2.48	-	2.48	mg/kg							<	2.48		18.9		39.5	<	2.48	<	2.48						
C25-C27	1.56	2.48	-	2.48	mg/kg							<	2.48		13.1		28.5	<	2.48	<	2.48						
C28-C33	1.56	2.48	-	5.08	mg/kg							<	2.48		60.2		162		7.86		4.86						
C34-C40	1.56	2.48	-	2.71	mg/kg							<	2.48		25.8		91.3		4.31	<	2.48						
EPA Method 9045																										
pH				7.55	pH Units		11.1		12.5		11.4		10.8		9.82		11.3		10		12.8		11.8		12.8		10
Temperature				23.02	°C																					
PAHs Method 8270CM_PAH_SIM																										
1-Methylnaphthalene	3.7	10	-		ug/Kg																					
2-Methylnaphthalene	3.8	10	-		ug/Kg																					
Acenaphthene	1.4	10	-		ug/Kg																					
Acenaphthylene	3.3	10	-		ug/Kg																					
Anthracene	1.2	10	-		ug/Kg																					
Benz(a)anthracene	1.1	10	-		ug/Kg																					
Benzo(a)pyrene	1.8	10	-		ug/Kg																					
Benzo(b)fluoranthene	1.7	10	-		ug/Kg																					
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg																					
Benzo(k)fluoranthene	1.7	10	-		ug/Kg																					
Chrysene	0.83	10	-		ug/Kg																					
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg																					
Fluoranthene	0.84	10	-		ug/Kg																					
Fluorene	1.3	10	-		ug/Kg																					
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg																					
Naphthalene	4	10	-		ug/Kg																					
Phenanthrene	1.4	10	-		ug/Kg																					
Pyrene	0.78	10	-		ug/Kg																					

Table 10: Laboratory Analytical Data - Material Storage Area
Agua Mansa Commerce Park

					SAMPLENAME	SW-8-1		SW-8-1-other		SW-8-5		SW-9-1		SW-9-5		SW-10-1		SW-10-5		SW-10-5-White		SW-13-1		SW-13-1-White		SW-13-5	
					SAMPDATE	07/18/2018 08:20:00		07/18/2018 08:15:00		07/18/2018 08:15:00		07/17/2018 14:30:00		07/17/2018 14:35:00		07/17/2018 11:55:00		07/17/2018 12:00:00		07/17/2018 12:00:00		07/17/2018 13:00:00		07/17/2018 13:05:00		07/17/2018 13:05:00	
					Feature		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
SVOCs EPA Method 8270C																											
1,2,4-Trichlorobenzene	22	250	-		ug/Kg																						
1,2-Dichlorobenzene	37	250	-		ug/Kg																						
1,3-Dichlorobenzene	50	250	-		ug/Kg																						
1,4-Dichlorobenzene	31	250	-		ug/Kg																						
1-Methylnaphthalene	21	250	-		ug/Kg																						
2,4,5-Trichlorophenol	43	250	-		ug/Kg																						
2,4,6-Trichlorophenol	35	250	820000		ug/Kg																						
2,4-Dichlorophenol	23	250	-		ug/Kg																						
2,4-Dimethylphenol	100	250	-		ug/Kg																						
2,4-Dinitrophenol	23	1200	-		ug/Kg																						
2,4-Dinitrotoluene	14	250	-		ug/Kg																						
2,6-Dinitrotoluene	33	250	-		ug/Kg																						
2-Chloronaphthalene	15	250	-		ug/Kg																						
2-Chlorophenol	15	250	-		ug/Kg																						
2-Methyl-4,6-dinitrophenol	21	250	-		ug/Kg																						
2-Methylnaphthalene	21	250	-		ug/Kg																						
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg																						
2-Nitroaniline	31	250	-		ug/Kg																						
2-Nitrophenol	16	250	-		ug/Kg																						
3 and 4-Methylphenol (m and p-Cresol	19	400	-		ug/Kg																						
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg																						
3-Nitroaniline	37	250	-		ug/Kg																						
4-Bromophenyl phenyl ether	24	250	-		ug/Kg																						
4-Chloro-3-methylphenol	18	250	-		ug/Kg																						
4-Chloroaniline	73	250	-		ug/Kg																						
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg																						
4-Nitroaniline	148	250	-		ug/Kg																						
4-Nitrophenol	117	250	-		ug/Kg																						
Acenaphthene	25	250	-		ug/Kg																						
Acenaphthylene	20	250	-		ug/Kg																						
Aniline	101	250	-		ug/Kg																						
Anthracene	23	250	-		ug/Kg																						
Azobenzene	67	250	-		ug/Kg																						
Benz(a)anthracene	22	250	-		ug/Kg																						
Benzidine	23	1200	2500000		ug/Kg																						
Benzo(a)pyrene	25	250	-		ug/Kg																						
Benzo(b)fluoranthene	27	250	-		ug/Kg																						
Benzo(g,h,i)perylene	29	250	-		ug/Kg																						
Benzo(k)fluoranthene	32	250	-		ug/Kg																						
Benzoic acid	36	1200	-		ug/Kg																						
Benzyl alcohol	36	250	-		ug/Kg																						
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg																						
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg																						
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg																						
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg																						
Butylbenzyl Phthalate	44	250	-		ug/Kg																						
Carbazole	23	250	-		ug/Kg																						
Chrysene	20	250	-		ug/Kg																						
Dibenz(a,h)anthracene	21	250	-		ug/Kg																						
Dibenzofuran	14	250	-		ug/Kg																						
Diethyl phthalate	24	250	-		ug/Kg																						
Dimethyl phthalate	22	250	-		ug/Kg																						
Di-n-butyl phthalate	67	250	-		ug/Kg																						
Di-n-octyl phthalate	23	250	-		ug/Kg																						
Fluoranthene	21	250	-		ug/Kg																						
Fluorene	27	250	-		ug/Kg																						
Hexachlorobenzene	15	250	-		ug/Kg																						
Hexachlorobutadiene	39	250	160000		ug/Kg																						
Hexachlorocyclopentadiene	14	1200	-		ug/Kg																						
Hexachloroethane	43	250	-		ug/Kg																						
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg																						
Isophorone	25	250	-		ug/Kg																						
Naphthalene	25	250	-		ug/Kg																						
Nitrobenzene	21	1200	-		ug/Kg																						
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg																						
N-Nitrosodi-n-propylamine (NDPA)	26	250	-		ug/Kg																						
N-Nitrosodiphenylamine	24	250	-		ug/Kg																						

Table 10: Laboratory Analytical Data - Material Storage Area
Agua Mansa Commerce Park

					SAMPLENAME	SW-8-1		SW-8-1-other		SW-8-5		SW-9-1		SW-9-5		SW-10-1		SW-10-5		SW-10-5-White		SW-13-1		SW-13-1-White		SW-13-5	
					SAMPDATE	07/18/2018 08:20:00		07/18/2018 08:15:00		07/18/2018 08:15:00		07/17/2018 14:30:00		07/17/2018 14:35:00		07/17/2018 11:55:00		07/17/2018 12:00:00		07/17/2018 12:00:00		07/17/2018 13:00:00		07/17/2018 13:05:00		07/17/2018 13:05:00	
					Feature		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
SVOCs EPA Method 8270C																											
Pentachlorophenol	55	1200	-		ug/Kg																						
Phenanthrene	22	250	-		ug/Kg																						
Phenol	26	250	-		ug/Kg																						
Pyrene	23	250	-		ug/Kg																						
Pyridine	21	250	-		ug/Kg																						
Total Cresol	400	400	-		ug/Kg																						

Table 10: Laboratory Analytical Data - Material Storage Area
Agua Mansa Commerce Park

					SAMPLENAME	SW-13-5-White		SW-14-1		SW-14-5		SW-15-1-brn		SW-15-1		SW-15-1		SW-15-5		SW-15-5-white		MSA-LT-1-1		MSA-LT-1-5	
					SAMPDATE	07/17/2018 13:00:00		07/17/2018 15:35:00		07/17/2018 15:40:00		07/18/2018 09:05:00		07/18/2018 09:10:00		07/18/2018 09:10:00		07/18/2018 09:10:00		07/18/2018 09:15:00		07/23/2018 12:15:00		07/23/2018 12:20:00	
					Feature		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Eastern Berms		Eastern Berms	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
Method 6010 CAM 16 Metals																									
Antimony	0.37	3	-	4.54	mg/Kg		5.86	<	3		3.35		5.78	<	3				3.76		4.28	<	3	<	3
Arsenic	0.36	1	4.2	4.60	mg/Kg		68.1		3.66		4.57		7.97		9				3.24		18.8		7.77		5.22
Barium	0.23	1	-	44.51	mg/Kg		78.3		46.2		43.6		41.6		114				27.5		99.3		70.1		72.9
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg		28.9	<	0.5	<	0.5		0.52		3.78			<	0.5		9.63		0.62	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		11.4		15.9		15.3		14.2		17.4				9.57		12.8		20.3		24.1
Cobalt	0.19	0.5	-	6.33	mg/Kg		2.1		6.59		6.74		5.99		4.74				4.79		4.09		8.31		9.76
Copper	0.31	1	-	11.84	mg/Kg		18.3		13.4		8.89		10.2		24.1				10.6		20.1		14		16.7
Lead	0.32	1	320	9.43	mg/Kg		514		8.67		5.31		17.9		51.2				10.9		104		10.2		5.61
Molybdenum	0.13	1	-	1.00	mg/Kg		1.64	<	1	<	1	<	1	<	1			<	1	<	1		1.77		1.32
Nickel	0.2	1.5	3100	10.03	mg/Kg		2.99		10.3		10.9		8.64		6.2				6.23		16.9		14.2		20
Selenium	0.72	3	-	7.11	mg/Kg		16.1		6.54		5.95		6.97		14.4				4.56		19.8	<	3	<	3
Silver	0.13	0.5	1500	0.50	mg/Kg		4.53	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	<	3	<	3	<	3			<	3	<	3	<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		10.8		30.3		29.2		25.3		24.4				19.9		29.9		32.4		37.7
Zinc	0.28	5	-	36.75	mg/Kg		380		29.7		26.4		34.7		53.6				24.6		87		38.8		37.3
EPA 7199 Hexavalent Chromium																									
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg		1.73	<	0.4	<	0.4		0.542		2.63			<	0.4		1.6	<	0.4	<	0.4
EPA Method 7471A Mercury																									
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14			<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																									
PCB-1016	0.03	0.05	-	0.05	mg/Kg							<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1221	0.14	0.05	-	0.05	mg/Kg							<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1232	0.10	0.05	-	0.05	mg/Kg							<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1242	0.14	0.05	-	0.05	mg/Kg							<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1248	0.19	0.05	-	0.05	mg/Kg							<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1254	0.20	0.05	-	0.05	mg/Kg							<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1260	0.07	0.05	-	0.05	mg/Kg							<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1262	0.17	0.05	-	0.05	mg/Kg							<	0.05	<	0.05			<	0.05	<	0.05				
PCB-1268	0.09	0.05	-	0.05	mg/Kg							<	0.05	<	0.05			<	0.05	<	0.05				
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																									
C7-C8	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48			<	2.48	<	2.48				
C9-C10	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48			<	2.48	<	2.48				
C11-C12	1.56	2.48	-	2.48	mg/kg							<	2.48	<	2.48			<	2.48	<	2.48				
C13-C14	1.56	2.48	-	2.48	mg/kg							<	2.48		4.36			<	2.48	<	2.48				
C15-C16	1.56	2.48	-	2.48	mg/kg							<	2.48		11.3			<	2.48	<	2.48				
C17-C18	1.56	2.48	-	2.48	mg/kg								6.81		13			<	2.48	<	2.48				
C19-C20	1.56	2.48	-	2.48	mg/kg								17.5		27.4			<	2.48		5.02				
C21-C22	1.56	2.48	-	2.48	mg/kg								20.8		31.4			<	2.48		5.07				
C23-C24	1.56	2.48	-	2.48	mg/kg								32.9		61.1			<	2.48		9.67				
C25-C27	1.56	2.48	-	2.48	mg/kg								21.7		50.5			<	2.48		6.47				
C28-C33	1.56	2.48	-	5.08	mg/kg								195				314		3.83		43.3				
C34-C40	1.56	2.48	-	2.71	mg/kg								96.6		160			<	2.48		20.6				
EPA Method 9045																									
pH				7.55	pH Units		13		9.93		9.67		10.9		12.5				10.6		12.6		7.62		8.33
Temperature				23.02	°C																				
PAHs Method 8270CM_PAH_SIM																									
1-Methylnaphthalene	3.7	10	-		ug/Kg																				
2-Methylnaphthalene	3.8	10	-		ug/Kg																				
Acenaphthene	1.4	10	-		ug/Kg																				
Acenaphthylene	3.3	10	-		ug/Kg																				
Anthracene	1.2	10	-		ug/Kg																				
Benz(a)anthracene	1.1	10	-		ug/Kg																				
Benzo(a)pyrene	1.8	10	-		ug/Kg																				
Benzo(b)fluoranthene	1.7	10	-		ug/Kg																				
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg																				
Benzo(k)fluoranthene	1.7	10	-		ug/Kg																				
Chrysene	0.83	10	-		ug/Kg																				
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg																				
Fluoranthene	0.84	10	-		ug/Kg																				
Fluorene	1.3	10	-		ug/Kg																				
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg																				
Naphthalene	4	10	-		ug/Kg																				
Phenanthrene	1.4	10	-		ug/Kg																				
Pyrene	0.78	10	-		ug/Kg																				

Table 10: Laboratory Analytical Data - Material Storage Area
Agua Mansa Commerce Park

					SAMPLENAME	SW-13-5-White		SW-14-1		SW-14-5		SW-15-1-brn		SW-15-1		SW-15-1		SW-15-5		SW-15-5-white		MSA-LT-1-1		MSA-LT-1-5	
					SAMPDATE	07/17/2018 13:00:00		07/17/2018 15:35:00		07/17/2018 15:40:00		07/18/2018 09:05:00		07/18/2018 09:10:00		07/18/2018 09:10:00		07/18/2018 09:10:00		07/18/2018 09:15:00		07/23/2018 12:15:00		07/23/2018 12:20:00	
					Feature		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Eastern Berms		Eastern Berms	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
SVOCs EPA Method 8270C																									
1,2,4-Trichlorobenzene	22	250	-		ug/Kg																				
1,2-Dichlorobenzene	37	250	-		ug/Kg																				
1,3-Dichlorobenzene	50	250	-		ug/Kg																				
1,4-Dichlorobenzene	31	250	-		ug/Kg																				
1-Methylnaphthalene	21	250	-		ug/Kg																				
2,4,5-Trichlorophenol	43	250	-		ug/Kg																				
2,4,6-Trichlorophenol	35	250	820000		ug/Kg																				
2,4-Dichlorophenol	23	250	-		ug/Kg																				
2,4-Dimethylphenol	100	250	-		ug/Kg																				
2,4-Dinitrophenol	23	1200	-		ug/Kg																				
2,4-Dinitrotoluene	14	250	-		ug/Kg																				
2,6-Dinitrotoluene	33	250	-		ug/Kg																				
2-Chloronaphthalene	15	250	-		ug/Kg																				
2-Chlorophenol	15	250	-		ug/Kg																				
2-Methyl-4,6-dinitrophenol	21	250	-		ug/Kg																				
2-Methylnaphthalene	21	250	-		ug/Kg																				
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg																				
2-Nitroaniline	31	250	-		ug/Kg																				
2-Nitrophenol	16	250	-		ug/Kg																				
3 and 4-Methylphenol (m and p-Cresol	19	400	-		ug/Kg																				
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg																				
3-Nitroaniline	37	250	-		ug/Kg																				
4-Bromophenyl phenyl ether	24	250	-		ug/Kg																				
4-Chloro-3-methylphenol	18	250	-		ug/Kg																				
4-Chloroaniline	73	250	-		ug/Kg																				
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg																				
4-Nitroaniline	148	250	-		ug/Kg																				
4-Nitrophenol	117	250	-		ug/Kg																				
Acenaphthene	25	250	-		ug/Kg																				
Acenaphthylene	20	250	-		ug/Kg																				
Aniline	101	250	-		ug/Kg																				
Anthracene	23	250	-		ug/Kg																				
Azobenzene	67	250	-		ug/Kg																				
Benz(a)anthracene	22	250	-		ug/Kg																				
Benzidine	23	1200	2500000		ug/Kg																				
Benzo(a)pyrene	25	250	-		ug/Kg																				
Benzo(b)fluoranthene	27	250	-		ug/Kg																				
Benzo(g,h,i)perylene	29	250	-		ug/Kg																				
Benzo(k)fluoranthene	32	250	-		ug/Kg																				
Benzoic acid	36	1200	-		ug/Kg																				
Benzyl alcohol	36	250	-		ug/Kg																				
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Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg																				
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg																				
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg																				
Butylbenzyl Phthalate	44	250	-		ug/Kg																				
Carbazole	23	250	-		ug/Kg																				
Chrysene	20	250	-		ug/Kg																				
Dibenz(a,h)anthracene	21	250	-		ug/Kg																				
Dibenzofuran	14	250	-		ug/Kg																				
Diethyl phthalate	24	250	-		ug/Kg																				
Dimethyl phthalate	22	250	-		ug/Kg																				
Di-n-butyl phthalate	67	250	-		ug/Kg																				
Di-n-octyl phthalate	23	250	-		ug/Kg																				
Fluoranthene	21	250	-		ug/Kg																				
Fluorene	27	250	-		ug/Kg																				
Hexachlorobenzene	15	250	-		ug/Kg																				
Hexachlorobutadiene	39	250	160000		ug/Kg																				
Hexachlorocyclopentadiene	14	1200	-		ug/Kg																				
Hexachloroethane	43	250	-		ug/Kg																				
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg																				
Isophorone	25	250	-		ug/Kg																				
Naphthalene	25	250	-		ug/Kg																				
Nitrobenzene	21	1200	-		ug/Kg																				
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg																				
N-Nitrosodi-n-propylamine (NDPA)	26	250	-		ug/Kg																				
N-Nitrosodiphenylamine	24	250	-		ug/Kg																				

Table 10: Laboratory Analytical Data - Material Storage Area
Agua Mansa Commerce Park

					SAMPLENAME	SW-13-5-White		SW-14-1		SW-14-5		SW-15-1-brn		SW-15-1		SW-15-1		SW-15-5		SW-15-5-white		MSA-LT-1-1		MSA-LT-1-5	
					SAMPDATE	07/17/2018 13:00:00		07/17/2018 15:35:00		07/17/2018 15:40:00		07/18/2018 09:05:00		07/18/2018 09:10:00		07/18/2018 09:10:00		07/18/2018 09:10:00		07/18/2018 09:15:00		07/23/2018 12:15:00		07/23/2018 12:20:00	
					Feature		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Eastern Berms		Eastern Berms	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
SVOCs EPA Method 8270C																									
Pentachlorophenol	55	1200	-		ug/Kg																				
Phenanthrene	22	250	-		ug/Kg																				
Phenol	26	250	-		ug/Kg																				
Pyrene	23	250	-		ug/Kg																				
Pyridine	21	250	-		ug/Kg																				
Total Cresol	400	400	-		ug/Kg																				

Table 10: Laboratory Analytical Data - Material Storage Area
Agua Mansa Commerce Park

					SAMPLENAME	MSA-LT-1-10		MSA-LT-2-1		MSA-LT-2-5		MSA-LT-2-10		MSA-LT-2-15		MSA-LT-3-1		MSA-LT-3-5		MSA-LT-3-10		MSA-LT-4-1		MSA-LT-4-5	
					SAMPDATE	07/23/2018 12:25:00		07/23/2018 11:35:00		07/23/2018 11:40:00		07/23/2018 11:50:00		07/23/2018 11:55:00		07/23/2018 10:50:00		07/23/2018 10:55:00		07/23/2018 11:00:00		07/23/2018 10:05:00		07/23/2018 10:10:00	
					Feature	Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
Method 6010 CAM 16 Metals																									
Antimony	0.37	3	-	4.54	mg/Kg	<	3	<	3	<	3	<	3			<	3	<	3	<	3	<	3	<	3
Arsenic	0.36	1	4.2	4.60	mg/Kg		2.04		6.97		2.32		3.58				20.5		23.4		10.7		20.3		19.3
Barium	0.23	1	-	44.51	mg/Kg		34		38.4		74.1		42.4				86.7		108		67.2		96.4		94.9
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5	<	0.5	<	0.5		0.54			<	0.5		0.62		0.51		0.76	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		10.3		11.9		31		11.9				27.9		33.2		21.8		29.4		29.2
Cobalt	0.19	0.5	-	6.33	mg/Kg		4.8		5.84		12.2		5.41				12.2		16.6		9.8		14.3		14
Copper	0.31	1	-	11.84	mg/Kg		8.23		8.75		21.2		9.15				21.2		27.7		15.8		24		23.4
Lead	0.32	1	320	9.43	mg/Kg		6.87		3.49		6.75		9				7.7		10.9		7.68		12.9		8.7
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1		2.7				1.16		1.82		1.54		2.07		1.78
Nickel	0.2	1.5	3100	10.03	mg/Kg		7.98		8.59		27.2		9.78				21.9		25.7		15.6		23		22.6
Selenium	0.72	3	-	7.11	mg/Kg	<	3	<	3	<	3	<	3			<	3	<	3	<	3	<	3	<	3
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5			<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	<	3	<	3			<	3	<	3	<	3	<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		21		24.1		39.1		20.2				43		53.6		37.3		46.2		47.2
Zinc	0.28	5	-	36.75	mg/Kg		18.8		24.6		51.2		25.5				54.1		66.9		43.7		59.9		57.2
EPA 7199 Hexavalent Chromium																									
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	<	0.4	<	0.4	<	0.4	<	0.4			<	0.4	<	0.4	<	0.4	<	0.4	<	0.4
EPA Method 7471A Mercury																									
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14	<	0.14			<	0.14	<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																									
PCB-1016	0.03	0.05	-	0.05	mg/Kg			<	0.05	<	0.05											<	0.05	<	0.05
PCB-1221	0.14	0.05	-	0.05	mg/Kg			<	0.05	<	0.05											<	0.05	<	0.05
PCB-1232	0.10	0.05	-	0.05	mg/Kg			<	0.05	<	0.05											<	0.05	<	0.05
PCB-1242	0.14	0.05	-	0.05	mg/Kg			<	0.05	<	0.05											<	0.05	<	0.05
PCB-1248	0.19	0.05	-	0.05	mg/Kg			<	0.05	<	0.05											<	0.05	<	0.05
PCB-1254	0.20	0.05	-	0.05	mg/Kg			<	0.05	<	0.05											<	0.05	<	0.05
PCB-1260	0.07	0.05	-	0.05	mg/Kg			<	0.05	<	0.05											<	0.05	<	0.05
PCB-1262	0.17	0.05	-	0.05	mg/Kg			<	0.05	<	0.05											<	0.05	<	0.05
PCB-1268	0.09	0.05	-	0.05	mg/Kg			<	0.05	<	0.05											<	0.05	<	0.05
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																									
C7-C8	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48									<	2.48
C9-C10	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48									<	2.48
C11-C12	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48									<	2.48
C13-C14	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48									<	2.48
C15-C16	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48									<	2.48
C17-C18	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48									<	2.48
C19-C20	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48									<	2.48
C21-C22	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48									<	2.48
C23-C24	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48									<	2.48
C25-C27	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48	<	2.48									<	2.48
C28-C33	1.56	2.48	-	5.08	mg/kg					<	2.48	<	2.48	<	2.48									<	2.48
C34-C40	1.56	2.48	-	2.71	mg/kg					<	2.48	<	2.48	<	2.48									<	2.48
EPA Method 9045																									
pH				7.55	pH Units		8.15		7.91		8.49		6.65				7.54		7.98		7.8		6.85		6.74
Temperature				23.02	°C																				
PAHs Method 8270CM_PAH_SIM																									
1-Methylnaphthalene	3.7	10	-		ug/Kg																				
2-Methylnaphthalene	3.8	10	-		ug/Kg																				
Acenaphthene	1.4	10	-		ug/Kg																				
Acenaphthylene	3.3	10	-		ug/Kg																				
Anthracene	1.2	10	-		ug/Kg																				
Benz(a)anthracene	1.1	10	-		ug/Kg																				
Benzo(a)pyrene	1.8	10	-		ug/Kg																				
Benzo(b)fluoranthene	1.7	10	-		ug/Kg																				
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg																				
Benzo(k)fluoranthene	1.7	10	-		ug/Kg																				
Chrysene	0.83	10	-		ug/Kg																				
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg																				
Fluoranthene	0.84	10	-		ug/Kg																				
Fluorene	1.3	10	-		ug/Kg																				
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg																				
Naphthalene	4	10	-		ug/Kg																				
Phenanthrene	1.4	10	-		ug/Kg																				
Pyrene	0.78	10	-		ug/Kg																				

Table 10: Laboratory Analytical Data - Material Storage Area
Agua Mansa Commerce Park

					SAMPLENAME	MSA-LT-1-10		MSA-LT-2-1		MSA-LT-2-5		MSA-LT-2-10		MSA-LT-2-15		MSA-LT-3-1		MSA-LT-3-5		MSA-LT-3-10		MSA-LT-4-1		MSA-LT-4-5	
					SAMPDATE	07/23/2018 12:25:00		07/23/2018 11:35:00		07/23/2018 11:40:00		07/23/2018 11:50:00		07/23/2018 11:55:00		07/23/2018 10:50:00		07/23/2018 10:55:00		07/23/2018 11:00:00		07/23/2018 10:05:00		07/23/2018 10:10:00	
					Feature	Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
SVOCs EPA Method 8270C																									
1,2,4-Trichlorobenzene	22	250	-		ug/Kg																				
1,2-Dichlorobenzene	37	250	-		ug/Kg																				
1,3-Dichlorobenzene	50	250	-		ug/Kg																				
1,4-Dichlorobenzene	31	250	-		ug/Kg																				
1-Methylnaphthalene	21	250	-		ug/Kg																				
2,4,5-Trichlorophenol	43	250	-		ug/Kg																				
2,4,6-Trichlorophenol	35	250	820000		ug/Kg																				
2,4-Dichlorophenol	23	250	-		ug/Kg																				
2,4-Dimethylphenol	100	250	-		ug/Kg																				
2,4-Dinitrophenol	23	1200	-		ug/Kg																				
2,4-Dinitrotoluene	14	250	-		ug/Kg																				
2,6-Dinitrotoluene	33	250	-		ug/Kg																				
2-Chloronaphthalene	15	250	-		ug/Kg																				
2-Chlorophenol	15	250	-		ug/Kg																				
2-Methyl-4,6-dinitrophenol	21	250	-		ug/Kg																				
2-Methylnaphthalene	21	250	-		ug/Kg																				
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg																				
2-Nitroaniline	31	250	-		ug/Kg																				
2-Nitrophenol	16	250	-		ug/Kg																				
3 and 4-Methylphenol (m and p-Cresol	19	400	-		ug/Kg																				
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg																				
3-Nitroaniline	37	250	-		ug/Kg																				
4-Bromophenyl phenyl ether	24	250	-		ug/Kg																				
4-Chloro-3-methylphenol	18	250	-		ug/Kg																				
4-Chloroaniline	73	250	-		ug/Kg																				
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg																				
4-Nitroaniline	148	250	-		ug/Kg																				
4-Nitrophenol	117	250	-		ug/Kg																				
Acenaphthene	25	250	-		ug/Kg																				
Acenaphthylene	20	250	-		ug/Kg																				
Aniline	101	250	-		ug/Kg																				
Anthracene	23	250	-		ug/Kg																				
Azobenzene	67	250	-		ug/Kg																				
Benz(a)anthracene	22	250	-		ug/Kg																				
Benzidine	23	1200	2500000		ug/Kg																				
Benzo(a)pyrene	25	250	-		ug/Kg																				
Benzo(b)fluoranthene	27	250	-		ug/Kg																				
Benzo(g,h,i)perylene	29	250	-		ug/Kg																				
Benzo(k)fluoranthene	32	250	-		ug/Kg																				
Benzoic acid	36	1200	-		ug/Kg																				
Benzyl alcohol	36	250	-		ug/Kg																				
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg																				
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg																				
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg																				
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg																				
Butylbenzyl Phthalate	44	250	-		ug/Kg																				
Carbazole	23	250	-		ug/Kg																				
Chrysene	20	250	-		ug/Kg																				
Dibenz(a,h)anthracene	21	250	-		ug/Kg																				
Dibenzofuran	14	250	-		ug/Kg																				
Diethyl phthalate	24	250	-		ug/Kg																				
Dimethyl phthalate	22	250	-		ug/Kg																				
Di-n-butyl phthalate	67	250	-		ug/Kg																				
Di-n-octyl phthalate	23	250	-		ug/Kg																				
Fluoranthene	21	250	-		ug/Kg																				
Fluorene	27	250	-		ug/Kg																				
Hexachlorobenzene	15	250	-		ug/Kg																				
Hexachlorobutadiene	39	250	160000		ug/Kg																				
Hexachlorocyclopentadiene	14	1200	-		ug/Kg																				
Hexachloroethane	43	250	-		ug/Kg																				
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg																				
Isophorone	25	250	-		ug/Kg																				
Naphthalene	25	250	-		ug/Kg																				
Nitrobenzene	21	1200	-		ug/Kg																				
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg																				
N-Nitrosodi-n-propylamine (NDPA)	26	250	-		ug/Kg																				
N-Nitrosodiphenylamine	24	250	-		ug/Kg																				

Table 10: Laboratory Analytical Data - Material Storage Area
Agua Mansa Commerce Park

					SAMPLENAME	MSA-LT-1-10		MSA-LT-2-1		MSA-LT-2-5		MSA-LT-2-10		MSA-LT-2-15		MSA-LT-3-1		MSA-LT-3-5		MSA-LT-3-10		MSA-LT-4-1		MSA-LT-4-5	
					SAMPDATE	07/23/2018 12:25:00		07/23/2018 11:35:00		07/23/2018 11:40:00		07/23/2018 11:50:00		07/23/2018 11:55:00		07/23/2018 10:50:00		07/23/2018 10:55:00		07/23/2018 11:00:00		07/23/2018 10:05:00		07/23/2018 10:10:00	
					Feature	Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms		Eastern Berms	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
SVOCs EPA Method 8270C																									
Pentachlorophenol	55	1200	-		ug/Kg																				
Phenanthrene	22	250	-		ug/Kg																				
Phenol	26	250	-		ug/Kg																				
Pyrene	23	250	-		ug/Kg																				
Pyridine	21	250	-		ug/Kg																				
Total Cresol	400	400	-		ug/Kg																				

Table 10: Laboratory Analytical Data - Material Storage Area
Agua Mansa Commerce Park

					SAMPLENAME	MSA-LT-4-10		MSA-LT-4-15		MSA-LT-5-1		MSA-LT-5-5		MSA-LT-5-10		MSA-LT-5-15	
					SAMPDATE	07/23/2018 10:15:00		07/23/2018 10:20:00		07/20/2018 13:35:00		07/20/2018 13:40:00		07/20/2018 13:47:00		07/20/2018 13:55:00	
					Feature	Eastern Berms		Eastern Berms		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**	
Method 6010 CAM 16 Metals																	
Antimony	0.37	3	-	4.54	mg/Kg	<	3				6.03		11.4		5.64		
Arsenic	0.36	1	4.2	4.60	mg/Kg		5.69				3.83		2.79		3.12		
Barium	0.23	1	-	44.51	mg/Kg		69.4				48.4		52.8		51.1		
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5			<	0.5	<	0.5	<	0.5		
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5				0.53	<	0.5	<	0.5		
Chromium	0.13	1	170000	13.95	mg/Kg		26				13.1		19.2		17.3		
Cobalt	0.19	0.5	-	6.33	mg/Kg		10.9				6.01		9.18		8.12		
Copper	0.31	1	-	11.84	mg/Kg		19				8.3		13.3		13.3		
Lead	0.32	1	320	9.43	mg/Kg		8.44				22.3		7.66		4.74		
Molybdenum	0.13	1	-	1.00	mg/Kg		1.46			<	1	<	1	<	1		
Nickel	0.2	1.5	3100	10.03	mg/Kg		21				8.93		12.7		13.8		
Selenium	0.72	3	-	7.11	mg/Kg	<	3				3.41	<	3		5.29		
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5			<	0.5	<	0.5	<	0.5		
Thallium	0.42	3	-	3.00	mg/Kg	<	3			<	3	<	3	<	3		
Vanadium	0.37	0.5	1000	24.05	mg/Kg		38.8				24.4		32		29.6		
Zinc	0.28	5	-	36.75	mg/Kg		49.8				39.2		35.9		33.5		
EPA 7199 Hexavalent Chromium																	
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	<	0.4			<	0.4		4.07	<	0.4		
EPA Method 7471A Mercury																	
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14			<	0.14	<	0.14	<	0.14		
PCBs EPA Method 8082																	
PCB-1016	0.03	0.05	-	0.05	mg/Kg												
PCB-1221	0.14	0.05	-	0.05	mg/Kg												
PCB-1232	0.10	0.05	-	0.05	mg/Kg												
PCB-1242	0.14	0.05	-	0.05	mg/Kg												
PCB-1248	0.19	0.05	-	0.05	mg/Kg												
PCB-1254	0.20	0.05	-	0.05	mg/Kg												
PCB-1260	0.07	0.05	-	0.05	mg/Kg												
PCB-1262	0.17	0.05	-	0.05	mg/Kg												
PCB-1268	0.09	0.05	-	0.05	mg/Kg												
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																	
C7-C8	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C9-C10	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C11-C12	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C13-C14	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C15-C16	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C17-C18	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C19-C20	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C21-C22	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C23-C24	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C25-C27	1.56	2.48	-	2.48	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C28-C33	1.56	2.48	-	5.08	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
C34-C40	1.56	2.48	-	2.71	mg/kg	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48	<	2.48
EPA Method 9045																	
pH				7.55	pH Units		6.94				11.3		9.34		9.12		
Temperature				23.02	°C												
PAHs Method 8270CM_PAH_SIM																	
1-Methylnaphthalene	3.7	10	-		ug/Kg					<	10	<	10	<	10		
2-Methylnaphthalene	3.8	10	-		ug/Kg					<	10	<	10	<	10		
Acenaphthene	1.4	10	-		ug/Kg					<	10	<	10	<	10		
Acenaphthylene	3.3	10	-		ug/Kg					<	10	<	10	<	10		
Anthracene	1.2	10	-		ug/Kg					<	10	<	10	<	10		
Benz(a)anthracene	1.1	10	-		ug/Kg					<	10	<	10	<	10		
Benzo(a)pyrene	1.8	10	-		ug/Kg					<	10	<	10	<	10		
Benzo(b)fluoranthene	1.7	10	-		ug/Kg					<	10	<	10	<	10		
Benzo(g,h,i)perylene	1.2	10	-		ug/Kg					<	10	<	10	<	10		
Benzo(k)fluoranthene	1.7	10	-		ug/Kg					<	10	<	10	<	10		
Chrysene	0.83	10	-		ug/Kg					<	10	<	10	<	10		
Dibenz(a,h)anthracene	1.4	10	-		ug/Kg					<	10	<	10	<	10		
Fluoranthene	0.84	10	-		ug/Kg					<	10	<	10	<	10		
Fluorene	1.3	10	-		ug/Kg					<	10	<	10	<	10		
Indeno(1,2,3-cd)pyrene	1.8	10	-		ug/Kg					<	10	<	10	<	10		
Naphthalene	4	10	-		ug/Kg					<	10	<	10	<	10		
Phenanthrene	1.4	10	-		ug/Kg					<	10	<	10	<	10		
Pyrene	0.78	10	-		ug/Kg					<	10	<	10	<	10		

Table 10: Laboratory Analytical Data - Material Storage Area
Agua Mansa Commerce Park

					SAMPLENAME	MSA-LT-4-10		MSA-LT-4-15		MSA-LT-5-1		MSA-LT-5-5		MSA-LT-5-10		MSA-LT-5-15	
					SAMPDATE	07/23/2018 10:15:00		07/23/2018 10:20:00		07/20/2018 13:35:00		07/20/2018 13:40:00		07/20/2018 13:47:00		07/20/2018 13:55:00	
					Feature	Eastern Berms		Eastern Berms		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**	
SVOCs EPA Method 8270C																	
1,2,4-Trichlorobenzene	22	250	-		ug/Kg					<	250	<	250	<	250		
1,2-Dichlorobenzene	37	250	-		ug/Kg					<	250	<	250	<	250		
1,3-Dichlorobenzene	50	250	-		ug/Kg					<	250	<	250	<	250		
1,4-Dichlorobenzene	31	250	-		ug/Kg					<	250	<	250	<	250		
1-Methylnaphthalene	21	250	-		ug/Kg					<	250	<	250	<	250		
2,4,5-Trichlorophenol	43	250	-		ug/Kg					<	250	<	250	<	250		
2,4,6-Trichlorophenol	35	250	820000		ug/Kg					<	250	<	250	<	250		
2,4-Dichlorophenol	23	250	-		ug/Kg					<	250	<	250	<	250		
2,4-Dimethylphenol	100	250	-		ug/Kg					<	250	<	250	<	250		
2,4-Dinitrophenol	23	1200	-		ug/Kg					<	1200	<	1200	<	1200		
2,4-Dinitrotoluene	14	250	-		ug/Kg					<	250	<	250	<	250		
2,6-Dinitrotoluene	33	250	-		ug/Kg					<	250	<	250	<	250		
2-Chloronaphthalene	15	250	-		ug/Kg					<	250	<	250	<	250		
2-Chlorophenol	15	250	-		ug/Kg					<	250	<	250	<	250		
2-Methyl-4,6-dinitrophenol	21	250	-		ug/Kg					<	250	<	250	<	250		
2-Methylnaphthalene	21	250	-		ug/Kg					<	250	<	250	<	250		
2-Methylphenol (o-Cresol)	31	250	-		ug/Kg					<	250	<	250	<	250		
2-Nitroaniline	31	250	-		ug/Kg					<	250	<	250	<	250		
2-Nitrophenol	16	250	-		ug/Kg					<	250	<	250	<	250		
3 and 4-Methylphenol (m and p-Cresol	19	400	-		ug/Kg					<	400	<	400	<	400		
3,3'-Dichlorobenzidine	54	1200	-		ug/Kg					<	1200	<	1200	<	1200		
3-Nitroaniline	37	250	-		ug/Kg					<	250	<	250	<	250		
4-Bromophenyl phenyl ether	24	250	-		ug/Kg					<	250	<	250	<	250		
4-Chloro-3-methylphenol	18	250	-		ug/Kg					<	250	<	250	<	250		
4-Chloroaniline	73	250	-		ug/Kg					<	250	<	250	<	250		
4-Chlorophenyl phenyl ether	19	250	-		ug/Kg					<	250	<	250	<	250		
4-Nitroaniline	148	250	-		ug/Kg					<	250	<	250	<	250		
4-Nitrophenol	117	250	-		ug/Kg					<	250	<	250	<	250		
Acenaphthene	25	250	-		ug/Kg					<	250	<	250	<	250		
Acenaphthylene	20	250	-		ug/Kg					<	250	<	250	<	250		
Aniline	101	250	-		ug/Kg					<	250	<	250	<	250		
Anthracene	23	250	-		ug/Kg					<	250	<	250	<	250		
Azobenzene	67	250	-		ug/Kg					<	250	<	250	<	250		
Benz(a)anthracene	22	250	-		ug/Kg					<	250	<	250	<	250		
Benzidine	23	1200	2500000		ug/Kg					<	1200	<	1200	<	1200		
Benzo(a)pyrene	25	250	-		ug/Kg					<	250	<	250	<	250		
Benzo(b)fluoranthene	27	250	-		ug/Kg					<	250	<	250	<	250		
Benzo(g,h,i)perylene	29	250	-		ug/Kg					<	250	<	250	<	250		
Benzo(k)fluoranthene	32	250	-		ug/Kg					<	250	<	250	<	250		
Benzoic acid	36	1200	-		ug/Kg					<	1200	<	1200	<	1200		
Benzyl alcohol	36	250	-		ug/Kg					<	250	<	250	<	250		
Bis(2-chloroethoxy)methane	15	250	-		ug/Kg					<	250	<	250	<	250		
Bis(2-chloroethyl) Ether	25	1200	-		ug/Kg					<	1200	<	1200	<	1200		
Bis(2-chloroisopropyl) Ether	17	250	-		ug/Kg					<	250	<	250	<	250		
Bis(2-ethylhexyl) phthalate	52	250	-		ug/Kg					<	250	<	250	<	250		
Butylbenzyl Phthalate	44	250	-		ug/Kg					<	250	<	250	<	250		
Carbazole	23	250	-		ug/Kg					<	250	<	250	<	250		
Chrysene	20	250	-		ug/Kg					<	250	<	250	<	250		
Dibenz(a,h)anthracene	21	250	-		ug/Kg					<	250	<	250	<	250		
Dibenzofuran	14	250	-		ug/Kg					<	250	<	250	<	250		
Diethyl phthalate	24	250	-		ug/Kg					<	250	<	250	<	250		
Dimethyl phthalate	22	250	-		ug/Kg					<	250	<	250	<	250		
Di-n-butyl phthalate	67	250	-		ug/Kg					<	250	<	250	<	250		
Di-n-octyl phthalate	23	250	-		ug/Kg					<	250	<	250	<	250		
Fluoranthene	21	250	-		ug/Kg					<	250	<	250	<	250		
Fluorene	27	250	-		ug/Kg					<	250	<	250	<	250		
Hexachlorobenzene	15	250	-		ug/Kg					<	250	<	250	<	250		
Hexachlorobutadiene	39	250	160000		ug/Kg					<	250	<	250	<	250		
Hexachlorocyclopentadiene	14	1200	-		ug/Kg					<	1200	<	1200	<	1200		
Hexachloroethane	43	250	-		ug/Kg					<	250	<	250	<	250		
Indeno(1,2,3-cd)pyrene	90	250	-		ug/Kg					<	250	<	250	<	250		
Isophorone	25	250	-		ug/Kg					<	250	<	250	<	250		
Naphthalene	25	250	-		ug/Kg					<	250	<	250	<	250		
Nitrobenzene	21	1200	-		ug/Kg					<	1200	<	1200	<	1200		
N-Nitrosodimethylamine (NDMA)	34	250	-		ug/Kg					<	250	<	250	<	250		
N-Nitrosodi-n-propylamine (NDPA)	26	250	-		ug/Kg					<	250	<	250	<	250		
N-Nitrosodiphenylamine	24	250	-		ug/Kg					<	250	<	250	<	250		

Table 10: Laboratory Analytical Data - Material Storage Area
Agua Mansa Commerce Park

					SAMPLENAME	MSA-LT-4-10		MSA-LT-4-15		MSA-LT-5-1		MSA-LT-5-5		MSA-LT-5-10		MSA-LT-5-15	
					SAMPDATE	07/23/2018 10:15:00		07/23/2018 10:20:00		07/20/2018 13:35:00		07/20/2018 13:40:00		07/20/2018 13:47:00		07/20/2018 13:55:00	
					Feature	Eastern Berms		Eastern Berms		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay		Raw Material Storage Bay	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**	
SVOCs EPA Method 8270C																	
Pentachlorophenol	55	1200	-		ug/Kg					<	1200	<	1200	<	1200		
Phenanthrene	22	250	-		ug/Kg					<	250	<	250	<	250		
Phenol	26	250	-		ug/Kg					<	250	<	250	<	250		
Pyrene	23	250	-		ug/Kg					<	250	<	250	<	250		
Pyridine	21	250	-		ug/Kg					<	250	<	250	<	250		
Total Cresol	400	400	-		ug/Kg					<	400	<	400	<	400		

Table 11: Laboratory Analytical Data - Vacant Lot
Agua Mansa Commerce Park

					SAMPLENAME	SW-1-1		SW-1-5		SW-2-1		SW-2-5		SW-4-6"		SW-4-1		SW-4-5		SW-5-6"		SW-5-1
					SAMPDATE	07/16/2018 13:25:00		07/16/2018 13:30:00		07/16/2018 12:20:00		07/16/2018 12:25:00		07/12/2018 10:25:00		07/12/2018 11:20:00		07/12/2018 11:25:00		7/12/2018 13:00:00 PM		7/12/2018 13:55:00 PM
					Feature	NW Corner of Northern Parcel		NW Corner of Northern Parcel		NW Corner of Northern Parcel		NW Corner of Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	<		<		<		<		<		<		<		<		<	
Method 6010 CAM 16 Metals																							
Antimony	0.37	3	-	4.54	mg/Kg		8.33	<	3		5.07	<	3	<	3		4.02	<	3		3.74		7.31
Arsenic	0.36	1	4.2	4.60	mg/Kg		6.79		4.05		5.34		1.45	<	1		2.26		2.88		5.18	<	1
Barium	0.23	1	-	44.51	mg/Kg		57.9		25.1		78.4		28.8		53.4		44.1		29		39.1		30.7
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		15.6		9.96		17.2		10.2		13.8		13.4		9.96		13.1		10.7
Cobalt	0.19	0.5	-	6.33	mg/Kg		8.28		6.25		8.53		5.7		5.51		5.53		4.8		5.41		4.89
Copper	0.31	1	-	11.84	mg/Kg		10.8		8.97		13.4		8.6		16.4		11.1		8.64		10.7		8.24
Lead	0.32	1	320	9.43	mg/Kg		10.6		4.98		15.8		4.99		13		12.2		4.73		13.7		8.85
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		10.4		7.81		11.4		7.22		8.09		9.22		7.6		8.41		7.3
Selenium	0.72	3	-	7.11	mg/Kg	<	3	<	3		5.66	<	3		3.42		9.27	<	3		14.6		10.4
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3		3.27		3.24	<	3	<	3	<	3	<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		30.2		23		31.2		20.9		22.2		23.6		18.8		25		20.3
Zinc	0.28	5	-	36.75	mg/Kg		44.4		28.4		54.6		27.7		64.1		42		26.7		41.8		30.7
EPA 7199 Hexavalent Chromium																							
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4
EPA Method 7471A Mercury																							
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																							
PCB-1016	0.03	0.05	-	0.05	mg/Kg					<	0.05	<	0.05							<	0.05	<	0.05
PCB-1221	0.14	0.05	-	0.05	mg/Kg					<	0.05	<	0.05							<	0.05	<	0.05
PCB-1232	0.10	0.05	-	0.05	mg/Kg					<	0.05	<	0.05							<	0.05	<	0.05
PCB-1242	0.14	0.05	-	0.05	mg/Kg					<	0.05	<	0.05							<	0.05	<	0.05
PCB-1248	0.19	0.05	-	0.05	mg/Kg					<	0.05	<	0.05							<	0.05	<	0.05
PCB-1254	0.20	0.05	-	0.05	mg/Kg					<	0.05	<	0.05							<	0.05	<	0.05
PCB-1260	0.07	0.05	-	0.05	mg/Kg					<	0.05	<	0.05							<	0.05	<	0.05
PCB-1262	0.17	0.05	-	0.05	mg/Kg					<	0.05	<	0.05							<	0.05	<	0.05
PCB-1268	0.09	0.05	-	0.05	mg/Kg					<	0.05	<	0.05							<	0.05	<	0.05
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																							
C7-C8	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48							<	2.48	<	2.48
C9-C10	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48							<	2.48	<	2.48
C11-C12	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48							<	2.48	<	2.48
C13-C14	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48							<	2.48	<	2.48
C15-C16	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48							<	2.48	<	2.48
C17-C18	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48							<	2.48	<	2.48
C19-C20	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48							<	2.48	<	2.48
C21-C22	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48							<	2.48	<	2.48
C23-C24	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48							<	2.48	<	2.48
C25-C27	1.56	2.48	-	2.48	mg/kg					<	2.48	<	2.48							<	2.48	<	2.48
C28-C33	1.56	2.48	-	5.08	mg/kg						7.73	<	2.48								8.35		5.39
C34-C40	1.56	2.48	-	2.71	mg/kg						3.87	<	2.48								3.8		2.57
pH EPA Method 9045																							
pH				7.55	pH Units		8.38		7.95		8.58		8.58		7.69		7.57		7.74		7.46		7.8
Temperature				23.02	°C										23.1		23.1		23.2		23.1		23.1
EPA Method 8290 Dioxins																							
2,3,7,8-TCDD					ng/kg										DL= 0.422		DL= 0.335		DL= 0.374		DL= 0.336		DL= 0.334
1,2,3,7,8-PeCDD					ng/kg										DL= 0.455		DL= 0.491		DL= 0.377		DL= 0.477		DL= 0.509
1,2,3,4,7,8-HxCDD					ng/kg										DL= 0.715		DL= 0.639		DL= 0.554		DL= 0.460		DL= 0.512
1,2,3,6,7,8-HxCDD					ng/kg										DL= 0.860		DL= 0.736		DL= 0.631		DL= 0.507		DL= 0.546
1,2,3,7,8,9-HxCDD					ng/kg										DL= 0.766		DL= 0.667		DL= 0.578		DL= 0.473		DL= 0.519
1,2,3,4,6,7,8-HpCDD					ng/kg										20.5		12.2		DL= 0.688		5.58		1.78
OCDD					ng/kg										207		125		DL= 1.24		48.7		13
2,3,7,8-TCDF					ng/kg										DL= 0.244		DL= 0.221		DL= 0.374		DL= 0.248		DL= 0.323
1,2,3,7,8-PeCDF					ng/kg										DL= 0.297		DL= 0.298		DL= 0.328		DL= 0.313		DL= 0.328
2,3,4,7,8-PeCDF					ng/kg										DL= 0.258		DL= 0.238		DL= 0.272		DL= 0.302		DL= 0.312
1,2,3,4,7,8-HxCDF					ng/kg										DL= 0.598		DL= 0.522		DL= 0.537		DL= 0.421		DL= 0.467
1,2,3,6,7,8-HxCDF					ng/kg										DL= 0.499		DL= 0.490		DL= 0.459		DL= 0.352		DL= 0.394
2,3,4,6,7,8-HxCDF					ng/kg										DL= 0.525		DL= 0.460		DL= 0.449		DL= 0.349		DL= 0.432
1,2,3,7,8,9-HxCDF					ng/kg										DL= 0.665		DL= 0.567		DL= 0.585		DL= 0.457		DL= 0.450
1,2,3,4,6,7,8-HpCDF					ng/kg										3.17		1.85		DL= 0.702		1.14		DL= 0.475

Table 11: Laboratory Analytical Data - Vacant Lot
Agua Mansa Commerce Park

					SAMPLENAME	SW-1-1		SW-1-5		SW-2-1		SW-2-5		SW-4-6"		SW-4-1		SW-4-5		SW-5-6"		SW-5-1	
					SAMPDATE	07/16/2018 13:25:00		07/16/2018 13:30:00		07/16/2018 12:20:00		07/16/2018 12:25:00		07/12/2018 10:25:00		07/12/2018 11:20:00		07/12/2018 11:25:00		7/12/2018 13:00:00 PM		7/12/2018 13:55:00 PM	
					Feature	NW Corner of Northern Parcel		NW Corner of Northern Parcel		NW Corner of Northern Parcel		NW Corner of Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel	
Analyte	DL	RL	SL	Background Averages	Unit	<		<		<		<		<		<		<		<		<	
EPA Method 8290 Dioxins																							
1,2,3,4,7,8,9-HpCDF					ng/kg									DL= 0.845		DL= 0.380		DL= 0.684		DL= 0.402		DL= 0.532	
OCDF					ng/kg									5.32		2.9		DL= 0.978		2.49		DL= 0.692	
Total TCDDs					ng/kg									DL= 0.422		DL= 0.335		DL= 0.374		DL= 0.336		DL= 0.334	
Total PeCDDs					ng/kg									DL= 0.455		DL= 0.491		DL= 0.377		DL= 0.477		DL= 0.509	
Total HxCDDs					ng/kg									3.89		2.53		DL= 0.631		1.71		DL= 0.546	
Total HpCDDs					ng/kg									45.4		23.7		DL= 0.688		12.2		3.88	
Total TCDFs					ng/kg									0.784		DL= 0.221		DL= 0.374		DL= 0.248		DL= 0.323	
Total PeCDFs					ng/kg									2.52		1.83		DL= 0.328		DL= 0.313		DL= 0.328	
Total HxCDFs					ng/kg									3.78		2.38		DL= 0.585		0.825		DL= 0.450	
Total HpCDFs					ng/kg									7.59		4.7		DL= 0.702		2.38		DL= 0.532	
ES 2,3,7,8-TCDD					%									70		92.9		87.8		102		108	
ES 1,2,3,7,8-PeCDD					%									77		81		76.8		107		102	
ES 1,2,3,4,7,8-HxCDD					%									74.6		91.4		83		80.6		101	
ES 1,2,3,6,7,8-HxCDD					%									63.6		58		64.1		73.3		70.3	
ES 1,2,3,7,8,9-HxCDD					%																		
ES 1,2,3,4,6,7,8-HpCDD					%									61.4		73.2		66.9		69.9		82.4	
ES OCDD					%									51.3		55.7		55.2		54.3		59.7	
ES 2,3,7,8-TCDF					%									68.4		89.4		81.7		106		106	
ES 1,2,3,7,8-PeCDF					%									76.4		73.7		69.7		93.4		94.8	
ES 2,3,4,7,8-PeCDF					%									75.6		79.5		74.3		99		88.5	
ES 1,2,3,4,7,8-HxCDF					%									57.8		76.6		69.2		70.4		87.3	
ES 1,2,3,6,7,8-HxCDF					%									71.5		89.2		86.3		83.3		105	
ES 2,3,4,6,7,8-HxCDF					%									69.3		85.2		84.1		81.5		94.2	
ES 1,2,3,7,8,9-HxCDF					%									65		85		78.1		75.5		96.7	
ES 1,2,3,4,6,7,8-HpCDF					%									52.4		57.7		55		60.1		74.1	
ES 1,2,3,4,7,8,9-HpCDF					%									57		72.8		66.3		69.7		81.5	
ES OCDF					%																		
SS 37Cl-2378-TCDD					%									98		100		90.5		109		115	
SS 12347-PeCDD					%																		
SS 12346-PeCDF					%																		
SS 123469-HxCDF					%																		
SS 1234689-HpCDF					%																		
AS 1368-TCDD					%																		
AS 1368-TCDF					%																		
ITEF TEQ (ND=0; EMPC=0)					ng/kg																		
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg																		
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg																		
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg																		
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg																		
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg									0.3		0.179		0		0.0826		0.0217	
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg																		
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg																		
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg																		
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg																		

Table 11: Laboratory Analytical Data - Vacant Lot
Agua Mansa Commerce Park

					SAMPLENAME	SW-5-5		SW-6-6"		SW-6-1		SW-6-5		SW-7-1		SW-7-5		VL-LT-1-1		VL-LT-1-5		VL-LT-1-10	
					SAMPDATE	7/12/2018 14:00:00 PM		07/12/2018 14:30:00		07/12/2018 15:15:00		07/12/2018 15:20:00		07/17/2018 09:55:00		07/17/2018 10:00:00		07/23/2018 14:00:00		07/23/2018 14:02:00		07/23/2018 14:05:00	
					Feature	Northern Parcel		Northern Parcel		Northern Parcel		Northern Parcel		Northern Berms		Northern Berms		Northern Berms		Northern Berms		Northern Berms	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**		**<**	
Method 6010 CAM 16 Metals																							
Antimony	0.37	3	-	4.54	mg/Kg		4.91		6.5	<	3		6.22	<	3	<	3	<	3	<	3	<	3
Arsenic	0.36	1	4.2	4.60	mg/Kg		5.6		3.1		3.37		4.15		12.1		3.64		18.6		6.09		10.5
Barium	0.23	1	-	44.51	mg/Kg		35.7		62.4		49.4		39.6		66		53.7		74.2		62.2		67.4
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5		0.84	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		12.6		16.9		15		12.9		23.1		21.6		24.4		20		23.7
Cobalt	0.19	0.5	-	6.33	mg/Kg		5.66		6.68		6.42		5.72		10.4		9.06		11.4		7.83		11.2
Copper	0.31	1	-	11.84	mg/Kg		9.4		21.1		13.7		11.8		19.8		19.6		18.7		13.4		18.9
Lead	0.32	1	320	9.43	mg/Kg		7.52		14.5		7.98		4.3		11.6		8.86		7.06		12.7		6.19
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1	<	1	<	1	<	1	<	1		1.07	<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		9.13		10.8		9.85		10.2		17.2		18.4		18.6		12.8		18
Selenium	0.72	3	-	7.11	mg/Kg		7.83		12.2		10.3	<	3		6.24	<	3	<	3	<	3	<	3
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	<	3	<	3	<	3	<	3	<	3	<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		23.4		26.6		25.8		23.2		37.3		31.8		40.8		32		40.4
Zinc	0.28	5	-	36.75	mg/Kg		30.7		69.7		35.8		27.4		50		43		48.7		34.5		49.3
EPA 7199 Hexavalent Chromium																							
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4
EPA Method 7471A Mercury																							
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																							
PCB-1016	0.03	0.05	-	0.05	mg/Kg	<	0.05							<	0.05	<	0.05						
PCB-1221	0.14	0.05	-	0.05	mg/Kg	<	0.05							<	0.05	<	0.05						
PCB-1232	0.10	0.05	-	0.05	mg/Kg	<	0.05							<	0.05	<	0.05						
PCB-1242	0.14	0.05	-	0.05	mg/Kg	<	0.05							<	0.05	<	0.05						
PCB-1248	0.19	0.05	-	0.05	mg/Kg	<	0.05							<	0.05	<	0.05						
PCB-1254	0.20	0.05	-	0.05	mg/Kg	<	0.05							<	0.05	<	0.05						
PCB-1260	0.07	0.05	-	0.05	mg/Kg	<	0.05							<	0.05	<	0.05						
PCB-1262	0.17	0.05	-	0.05	mg/Kg	<	0.05							<	0.05	<	0.05						
PCB-1268	0.09	0.05	-	0.05	mg/Kg	<	0.05							<	0.05	<	0.05						
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																							
C7-C8	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48						
C9-C10	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48						
C11-C12	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48						
C13-C14	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48						
C15-C16	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48						
C17-C18	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48						
C19-C20	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48						
C21-C22	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48						
C23-C24	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48						
C25-C27	1.56	2.48	-	2.48	mg/kg	<	2.48							<	2.48	<	2.48						
C28-C33	1.56	2.48	-	5.08	mg/kg		4.77								5.94	<	2.48						
C34-C40	1.56	2.48	-	2.71	mg/kg		2.85								2.72	<	2.48						
pH EPA Method 9045																							
pH				7.55	pH Units		7.92		7.33		7.64		7.76		8.79		9.02		7.97		7.83		8.13
Temperature				23.02	°C		23.1		23.1		23		23										
EPA Method 8290 Dioxins																							
2,3,7,8-TCDD					ng/kg		DL= 0.313		DL= 0.428		DL= 0.220		DL= 0.396										
1,2,3,7,8-PeCDD					ng/kg		DL= 0.447		DL= 0.608		DL= 0.281		DL= 0.369										
1,2,3,4,7,8-HxCDD					ng/kg		DL= 0.454		DL= 0.561		DL= 0.328		DL= 0.439										
1,2,3,6,7,8-HxCDD					ng/kg		DL= 0.499		DL= 0.534		DL= 0.366		DL= 0.511										
1,2,3,7,8,9-HxCDD					ng/kg		DL= 0.466		DL= 0.537		DL= 0.339		DL= 0.466										
1,2,3,4,6,7,8-HpCDD					ng/kg		1.5		7.43		2.21		DL= 0.789										
OCDD					ng/kg		9.26		68.8		17.6		DL= 2.37										
2,3,7,8-TCDF					ng/kg		DL= 0.229		DL= 0.365		DL= 0.252		DL= 0.261										
1,2,3,7,8-PeCDF					ng/kg		DL= 0.291		DL= 0.392		DL= 0.265		DL= 0.183										
2,3,4,7,8-PeCDF					ng/kg		DL= 0.287		DL= 0.319		DL= 0.236		DL= 0.235										
1,2,3,4,7,8-HxCDF					ng/kg		DL= 0.351		DL= 0.450		DL= 0.377		DL= 0.352										
1,2,3,6,7,8-HxCDF					ng/kg		DL= 0.309		DL= 0.364		DL= 0.325		DL= 0.242										
2,3,4,6,7,8-HxCDF					ng/kg		DL= 0.329		DL= 0.401		DL= 0.334		DL= 0.261										
1,2,3,7,8,9-HxCDF					ng/kg		DL= 0.438		DL= 0.459		DL= 0.480		DL= 0.295										
1,2,3,4,6,7,8-HpCDF					ng/kg		DL= 0.624		1.94		0.544		DL= 0.681										

Table 11: Laboratory Analytical Data - Vacant Lot
Agua Mansa Commerce Park

					SAMPLENAME	SW-5-5	SW-6-6"	SW-6-1	SW-6-5	SW-7-1	SW-7-5	VL-LT-1-1	VL-LT-1-5	VL-LT-1-10
					SAMPDATE	7/12/2018 14:00:00 PM	07/12/2018 14:30:00	07/12/2018 15:15:00	07/12/2018 15:20:00	07/17/2018 09:55:00	07/17/2018 10:00:00	07/23/2018 14:00:00	07/23/2018 14:02:00	07/23/2018 14:05:00
					Feature	Northern Parcel	Northern Parcel	Northern Parcel	Northern Parcel	Northern Berms	Northern Berms	Northern Berms	Northern Berms	Northern Berms
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**	**<**	**<**	**<**	**<**	**<**	**<**	**<**	**<**
EPA Method 8290 Dioxins														
1,2,3,4,7,8,9-HpCDF					ng/kg	DL= 0.630	DL= 0.376	DL= 0.438	DL= 0.522					
OCDF					ng/kg	DL= 1.13	3.35	DL= 1.37	DL= 1.65					
Total TCDDs					ng/kg	DL= 0.313	DL= 0.428	DL= 0.220	DL= 0.396					
Total PeCDDs					ng/kg	DL= 0.447	DL= 0.608	DL= 0.281	DL= 0.369					
Total HxCDDs					ng/kg	DL= 0.499	2.4	0.488	DL= 0.511					
Total HpCDDs					ng/kg	3.61	18.3	5.23	DL= 0.789					
Total TCDFs					ng/kg	DL= 0.229	DL= 0.365	DL= 0.252	DL= 0.261					
Total PeCDFs					ng/kg	DL= 0.291	1.48	DL= 0.265	DL= 0.235					
Total HxCDFs					ng/kg	DL= 0.438	2	DL= 0.480	DL= 0.352					
Total HpCDFs					ng/kg	DL= 0.630	3.64	1.21	DL= 0.681					
ES 2,3,7,8-TCDD					%	99	98.6	117	98.4					
ES 1,2,3,7,8-PeCDD					%	74.2	98.1	92.7	66.5					
ES 1,2,3,4,7,8-HxCDD					%	88.4	82.3	95.8	75.9					
ES 1,2,3,6,7,8-HxCDD					%	88.8	81.6	91.3	88.2					
ES 1,2,3,7,8,9-HxCDD					%									
ES 1,2,3,4,6,7,8-HpCDD					%	72.8	78.8	102	72					
ES OCDD					%	49.6	60.5	63.7	48.4					
ES 2,3,7,8-TCDF					%	98.3	108	117	105					
ES 1,2,3,7,8-PeCDF					%	70.7	87.7	88.5	78.7					
ES 2,3,4,7,8-PeCDF					%	67.5	90.5	84.3	60.4					
ES 1,2,3,4,7,8-HxCDF					%	84	81.8	87.1	60.2					
ES 1,2,3,6,7,8-HxCDF					%	98	96.5	111	88.2					
ES 2,3,4,6,7,8-HxCDF					%	90.2	91	110	89.6					
ES 1,2,3,7,8,9-HxCDF					%	87.3	91.8	106	98.3					
ES 1,2,3,4,6,7,8-HpCDF					%	65.1	66.9	97	48.5					
ES 1,2,3,4,7,8,9-HpCDF					%	76.9	80.9	111	87.5					
ES OCDF					%									
SS 37Cl-2378-TCDD					%	100	101	122	94					
SS 12347-PeCDD					%									
SS 12346-PeCDF					%									
SS 123469-HxCDF					%									
SS 1234689-HpCDF					%									
AS 1368-TCDD					%									
AS 1368-TCDF					%									
ITEF TEQ (ND=0; EMPC=0)					ng/kg									
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg									
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg									
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg									
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg									
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg	0.0178	0.115	0.0328	0					
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg									
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg									
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg									
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg									

Table 11: Laboratory Analytical Data - Vacant Lot
Agua Mansa Commerce Park

					SAMPLENAME	VL-LT-2-6"		VL-LT-2-1		VL-LT-2-5		VL-LT-3-6"		VL-LT-3-1		VL-LT-3-5	
					SAMPDATE	07/12/2018 09:10:00		07/12/2018 09:35:00		07/12/2018 09:45:00		07/12/2018 15:50:00		07/12/2018 16:25:00		07/12/2018 16:30:00	
					Feature	Background Analysis		Background Analysis		Background Analysis		Background Analysis		Background Analysis		Background Analysis	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**	
Method 6010 CAM 16 Metals																	
Antimony	0.37	3	-	4.54	mg/Kg		5.76	<	3		3.17		4.22		3.76		7.03
Arsenic	0.36	1	4.2	4.60	mg/Kg		1.53		4.81		4.35		4.94		8.94		8.66
Barium	0.23	1	-	44.51	mg/Kg		56.6		46.7		33.8		82.8		77.9		58.2
Beryllium	0.17	0.5	210	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Cadmium	0.21	0.5	7.3	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Chromium	0.13	1	170000	13.95	mg/Kg		14.2		13.6		11.8		21.6		20.6		18.9
Cobalt	0.19	0.5	-	6.33	mg/Kg		6.26		6.38		6.51		8.53		8.77		8.61
Copper	0.31	1	-	11.84	mg/Kg		17.1		12.2		10.5		23.5		17.8		15
Lead	0.32	1	320	9.43	mg/Kg		13.2		14.3		8.83		20.2		18.8		6.79
Molybdenum	0.13	1	-	1.00	mg/Kg	<	1	<	1	<	1	<	1	<	1	<	1
Nickel	0.2	1.5	3100	10.03	mg/Kg		8.88		9.12		8.62		13.5		14.7		14.6
Selenium	0.72	3	-	7.11	mg/Kg	<	3		5.82		7.83	<	3		6.62		6.99
Silver	0.13	0.5	1500	0.50	mg/Kg	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5	<	0.5
Thallium	0.42	3	-	3.00	mg/Kg	<	3	<	3	<	3	<	3	<	3	<	3
Vanadium	0.37	0.5	1000	24.05	mg/Kg		24.2		25.3		22.9		31		31.1		26.1
Zinc	0.28	5	-	36.75	mg/Kg		64.7		44.2		35.4		87.2		56.1		38.5
EPA 7199 Hexavalent Chromium																	
Hexavalent Chromium	0.2	0.4	6.3	0.40	mg/Kg	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4	<	0.4
EPA Method 7471A Mercury																	
Mercury	0.02	0.14	4.4	0.14	mg/Kg	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14	<	0.14
PCBs EPA Method 8082																	
PCB-1016	0.03	0.05	-	0.05	mg/Kg												
PCB-1221	0.14	0.05	-	0.05	mg/Kg												
PCB-1232	0.10	0.05	-	0.05	mg/Kg												
PCB-1242	0.14	0.05	-	0.05	mg/Kg												
PCB-1248	0.19	0.05	-	0.05	mg/Kg												
PCB-1254	0.20	0.05	-	0.05	mg/Kg												
PCB-1260	0.07	0.05	-	0.05	mg/Kg												
PCB-1262	0.17	0.05	-	0.05	mg/Kg												
PCB-1268	0.09	0.05	-	0.05	mg/Kg												
TPH Carbon Chain C7-C40 EPA Method 8015B (M)																	
C7-C8	1.56	2.48	-	2.48	mg/kg												
C9-C10	1.56	2.48	-	2.48	mg/kg												
C11-C12	1.56	2.48	-	2.48	mg/kg												
C13-C14	1.56	2.48	-	2.48	mg/kg												
C15-C16	1.56	2.48	-	2.48	mg/kg												
C17-C18	1.56	2.48	-	2.48	mg/kg												
C19-C20	1.56	2.48	-	2.48	mg/kg												
C21-C22	1.56	2.48	-	2.48	mg/kg												
C23-C24	1.56	2.48	-	2.48	mg/kg												
C25-C27	1.56	2.48	-	2.48	mg/kg												
C28-C33	1.56	2.48	-	5.08	mg/kg												
C34-C40	1.56	2.48	-	2.71	mg/kg												
pH EPA Method 9045																	
pH				7.55	pH Units		6.59		7.11		6.99		7.17		7.47		7.52
Temperature				23.02	°C		22.8		22.8		22.8		23.1		23.1		23
EPA Method 8290 Dioxins																	
2,3,7,8-TCDD					ng/kg		DL= 0.417		DL= 0.278		DL= 0.326		DL= 0.283		DL= 0.282		DL= 0.319
1,2,3,7,8-PeCDD					ng/kg		DL= 0.631		DL= 0.615		DL= 0.553		DL= 0.370		DL= 0.447		DL= 0.584
1,2,3,4,7,8-HxCDD					ng/kg		DL= 0.547		DL= 0.731		DL= 0.454		DL= 0.280		DL= 0.451		DL= 0.427
1,2,3,6,7,8-HxCDD					ng/kg		DL= 0.625		DL= 0.902		DL= 0.498		DL= 0.311		DL= 0.498		DL= 0.430
1,2,3,7,8,9-HxCDD					ng/kg		DL= 0.571		DL= 0.792		DL= 0.466		0.789		DL= 0.464		DL= 0.420
1,2,3,4,6,7,8-HpCDD					ng/kg		15.9		9.34		DL= 0.817		18.8		10		DL= 0.544
OCDD					ng/kg		163		92.2		7.07		181		90		3.4
2,3,7,8-TCDF					ng/kg		DL= 0.425		DL= 0.224		DL= 0.295		DL= 0.243		DL= 0.274		DL= 0.255
1,2,3,7,8-PeCDF					ng/kg		DL= 0.350		DL= 0.339		DL= 0.254		DL= 0.256		0.488		DL= 0.329
2,3,4,7,8-PeCDF					ng/kg		DL= 0.318		DL= 0.297		DL= 0.278		DL= 0.212		0.747		DL= 0.412
1,2,3,4,7,8-HxCDF					ng/kg		DL= 0.528		DL= 0.566		DL= 0.351		DL= 0.346		DL= 0.394		DL= 0.397
1,2,3,6,7,8-HxCDF					ng/kg		DL= 0.476		DL= 0.488		DL= 0.304		DL= 0.289		DL= 0.300		DL= 0.295
2,3,4,6,7,8-HxCDF					ng/kg		DL= 0.458		DL= 0.550		DL= 0.288		DL= 0.290		DL= 0.326		DL= 0.287
1,2,3,7,8,9-HxCDF					ng/kg		DL= 0.585		DL= 0.571		DL= 0.360		DL= 0.414		DL= 0.422		DL= 0.351
1,2,3,4,6,7,8-HpCDF					ng/kg		3.05		1.97		DL= 0.525		3.56		3.89		DL= 0.705

Table 11: Laboratory Analytical Data - Vacant Lot
Agua Mansa Commerce Park

					SAMPLENAME	VL-LT-2-6"		VL-LT-2-1		VL-LT-2-5		VL-LT-3-6"		VL-LT-3-1		VL-LT-3-5	
					SAMPDATE	07/12/2018 09:10:00		07/12/2018 09:35:00		07/12/2018 09:45:00		07/12/2018 15:50:00		07/12/2018 16:25:00		07/12/2018 16:30:00	
					Feature	Background Analysis		Background Analysis		Background Analysis		Background Analysis		Background Analysis		Background Analysis	
Analyte	**DL**	**RL**	**SL**	**Background Averages**	**Unit**	**<**		**<**		**<**		**<**		**<**		**<**	
EPA Method 8290 Dioxins																	
1,2,3,4,7,8,9-HpCDF					ng/kg		DL= 0.502		DL= 0.415		DL= 0.556		DL= 0.337		DL= 0.482		DL= 0.428
OCDF					ng/kg		5.46		3.17		DL= 1.01		6.04		3.79		DL= 1.49
Total TCDDs					ng/kg		DL= 0.417		DL= 0.278		DL= 0.326		0.677		DL= 0.282		DL= 0.319
Total PeCDDs					ng/kg		DL= 0.631		DL= 0.615		DL= 0.553		DL= 0.370		DL= 0.447		DL= 0.584
Total HxCDDs					ng/kg		3.07		DL= 0.902		DL= 0.498		5.04		2.49		DL= 0.430
Total HpCDDs					ng/kg		36.5		18		DL= 0.817		36.8		19.5		DL= 0.544
Total TCDFs					ng/kg		DL= 0.425		DL= 0.224		DL= 0.295		2.24		2.08		DL= 0.255
Total PeCDFs					ng/kg		2.94		2.19		DL= 0.278		2.82		4.37		DL= 0.412
Total HxCDFs					ng/kg		3.32		2.68		DL= 0.360		3.4		3.35		DL= 0.397
Total HpCDFs					ng/kg		7.36		4.82		DL= 0.556		8.4		8.23		DL= 0.705
ES 2,3,7,8-TCDD					%		86.2		111		88.2		115		106		91.8
ES 1,2,3,7,8-PeCDD					%		95.2		103		67.3		110		68.7		69.2
ES 1,2,3,4,7,8-HxCDD					%		80.5		101		88.2		84.3		86.9		83.2
ES 1,2,3,6,7,8-HxCDD					%		63.6		82		75		90.1		87.6		84.1
ES 1,2,3,7,8,9-HxCDD					%												
ES 1,2,3,4,6,7,8-HpCDD					%		61.8		86.6		65.3		99.3		84		79.8
ES OCDD					%		51.6		63		49.8		57.5		58.9		59
ES 2,3,7,8-TCDF					%		85.8		108		83.3		118		107		106
ES 1,2,3,7,8-PeCDF					%		87.2		91.7		65.5		106		80.8		77.7
ES 2,3,4,7,8-PeCDF					%		88		98.7		52.6		118		59.1		60.7
ES 1,2,3,4,7,8-HxCDF					%		64.6		83.1		75		82.6		77.9		71
ES 1,2,3,6,7,8-HxCDF					%		78.2		102		83.7		99.5		100		88.5
ES 2,3,4,6,7,8-HxCDF					%		76.1		90.1		82.7		98.6		96.7		92.2
ES 1,2,3,7,8,9-HxCDF					%		75		99.8		84.5		88.7		94.2		93.4
ES 1,2,3,4,6,7,8-HpCDF					%		61		70.4		62.1		55.7		52.4		41.9
ES 1,2,3,4,7,8,9-HpCDF					%		67.1		82.4		69.9		108		93.8		94.3
ES OCDF					%												
SS 37Cl-2378-TCDD					%		96.7		112		89.9		114		105		84
SS 12347-PeCDD					%												
SS 12346-PeCDF					%												
SS 123469-HxCDF					%												
SS 1234689-HpCDF					%												
AS 1368-TCDD					%												
AS 1368-TCDF					%												
ITEF TEQ (ND=0; EMPC=0)					ng/kg												
ITEF TEQ (ND=0; EMPC=EMPC)					ng/kg												
ITEF TEQ (ND=DL/2; EMPC=0)					ng/kg												
ITEF TEQ (ND=DL/2; EMPC=EMPC)					ng/kg												
ITEF TEQ (ND=DL; EMPC=EMPC)					ng/kg												
WHO-2005 TEQ (ND=0; EMPC=0)					ng/kg		0.24		0.172		0.00212		0.359		0.406		0.00102
WHO-2005 TEQ (ND=0; EMPC=EMPC)					ng/kg												
WHO-2005 TEQ (ND=DL/2; EMPC=0)					ng/kg												
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)					ng/kg												
WHO-2005 TEQ (ND=DL; EMPC=EMPC)					ng/kg												

Table 12: Summary of Compounds Above Screening Levels
Agua Mansa Commerce Park

STUDY AREA	BLDG/STRUCTURE	FEATURE	No. of Trenches/Borings	Analyzed for:	Anayltes above SL/RSL	Evaluation
SMC	Former Iron Ore Storage	Former Iron Ore Storage	1 Trench	Metals, Hexavalent Chromium, pH	Arsenic	Address in Decon/Demo/Grading
	Wet Weather Quarry	Wet Weather Quarry	3 Borings	Metals, Hexavalent Chromium, PCBs, TPH, pH, PAHs, SVOCs, Dioxins	Arsenic, Hexavalent Chromium	Address in Decon/Demo/Grading
	South of Secondary Reduction	South of Secondary Reduction	1 Trench	Metals, Hexavalent Chromium, pH, Dioxins	Arsenic, Cadmium	Address in Decon/Demo/Grading (Isolated iron ore)
	Southeast of Secondary Reduction	Southeast of Secondary Reduction	1 Trench	Metals, Hexavalent Chromium, pH, Dioxins	Arsenic	Address in Decon/Demo/Grading
	Northwest of Wet Weather Quarry	Northwest of Wet Weather Quarry	5 Trenches (composited)	Metals, Hexavalent Chromium, PCBs, TPH, pH	Arsenic	Address in Decon/Demo/Grading
WCP	Kilns	Kilns	4 Trenches	Metals, Hexavalent Chromium, PCBs, TPH, pH, PAHs, SVOCs, Dioxins	Arsenic	Address in Decon/Demo/Grading
GCP	Southwest of Former Finish Grind Feed Bins	Former Water Coolers	1 Trench	Metals, Hexavalent Chromium, pH	--	No Further Action Required
	Former Grey Kiln 1 & 2	Former Grey Kiln 1 & 2	2 Trenches	Metals, Hexavalent Chromium, PCBs, TPH, pH, PAHs, SVOCs, Dioxins	--	No Further Action Required
	Baghouses	Baghouses	1 Trench	Metals, Hexavalent Chromium, TPH, pH, PAHs, SVOCs, Dioxins	--	No Further Action Required
	Former Coal Storage	Former Coal Storage	1 Trench	Metals, Hexavalent Chromium, pH, PAHs, SVOCs, Dioxins	Arsenic	Address in Decon/Demo/Grading
	North of Former Boiler House	Former Diesel UST 10,000 Gallons	5 Trenches (composited)	Metals, Hexavalent Chromium, PCBs, TPH, pH	--	No Further Action Required
	North, East, South Berms	North, East, South Berms	5 Trenches	Metals, Hexavalent Chromium, PCBs, TPH, pH, Dioxins	Arsenic, Hexavalent Chromium	Address in Decon/Demo/Grading
	East Berm	East Berm	5 Trenches (composited)	Metals, Hexavalent Chromium, PCBs, TPH, pH	Arsenic	Address in Decon/Demo/Grading

SL - Screening Level
RSL - Regional Screening Level
*others were included in the background analysis, these are associated to no other feature

Table 12: Summary of Compounds Above Screening Levels
Agua Mansa Commerce Park

STUDY AREA	BLDG/STRUCTURE	FEATURE	No. of Trenches/Borings	Analyzed for:	Anayltes above SL/RSL	Evaluation
MSA	Eastern Berms	Eastern Berms	4 Trenches	Metals, Hexavalent Chromium, PCBs, TPH, pH	Arsenic	Address in Decon/Demo/Grading
	Raw Material Storage Bay	Raw Material Storage Bay	31 Trenches (30 composited)	Metals, Hexavalent Chromium, PCBs, TPH, pH, PAHs, SVOCs	Arsenic, Cadmium, Lead	Address in Decon/Demo/Grading (Isolated white clay)
MAP	West of Former Agriculture Division	Former Parking (Northwest)	1 Trench	Hexavalent Chromium, TPH, Pesticides	--	No Further Action Required
	East of Transportation Office	Former Fleet Truck Parking	1 Trench	Metals, Hexavalent Chromium, TPH, pH, PAHs, SVOCs	Arsenic	Address in Decon/Demo/Grading
	Garage and Administrative Building	Washrack Discharge Point	1 Trench	Metals, Hexavalent Chromium, TPH, pH, VOCs	Arsenic	Address in Decon/Demo/Grading
	Garage and Garage Storeroom	Former Diesel UST 1,000 gallons	1 Boring	TPH, VOCs	--	No Further Action Required
	Crane Storage	Former Waste Oil UST 550 Gallons	1 Boring	TPH, VOCs	--	No Further Action Required
	North of Former Boiler Shop	6,000,000 Gallon Bunker C Fuel Oil UST	2 Borings 5 Trenches (composited)	Metals, Hexavalent Chromium, TPH, pH, VOCs, PAHs, SVOCs	Arsenic	Address in Decon/Demo/Grading
	Former Material Yard	Former Material Yard	5 Trenches (composited)	Metals, Hexavalent Chromium, PCBs, TPH, pH	Arsenic	Address in Decon/Demo/Grading
	Former Power House	Former Power House	1 Trench	Metals, Hexavalent Chromium, pH	Arsenic	Address in Decon/Demo/Grading
	Northwest of center of former Fleet Truck Parking	Former Agriculture Division	5 Trenches (composited)	Metals, Hexavalent Chromium, PCBs, TPH, pH	--	No Further Action Required
	East of Former Fleet Truck Parking	East of Former Fleet Truck Parking	5 Trenches (composited)	Metals, Hexavalent Chromium, PCBs, TPH, pH	Arsenic	Address in Decon/Demo/Grading
VL	Northern Berms	Northern Berms	6 Trenches (5 composited)	Metals, Hexavalent Chromium, PCBs, TPH, pH	Arsenic	Address in Decon/Demo/Grading
	NA	Background Analysis*	2 Trenches	Metals, Hexavalent Chromium, pH, Dioxins	Arsenic	Address in Decon/Demo/Grading
	NW Corner of Northern Parcel	NW Corner of Northern Parcel	10 Trenches (composited)	Metals, Hexavalent Chromium, PCBs, TPH, pH	Arsenic	Address in Decon/Demo/Grading
	Northern Parcel	Northern Parcel	15 Trenches (composited)	Metals, Hexavalent Chromium, PCBs, TPH, pH, Dioxins	Arsenic	Address in Decon/Demo/Grading

SL - Screening Level
RSL - Regional Screening Level
*others were included in the background analysis, these are associated to no other feature

APPENDIX A
Boring Logs

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Log of Boring **GCP-SG-1** Sheet 1 of 1

Project: Agua Mansa Commerce Park		Project No.: 721013501	
Location: Jurupa Valley, California		Elevation and Datum:	
Drilling Company: Yellow Jacket		Date Started: 7/13/18	Date Finished: 7/13/18
Drilling Equipment: CME-95 Hollow Stem Auger		Completion Depth: 15.5 ft	Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit		Number of Samples: Disturbed -	Undisturbed - / Core -
Casing Diameter (in): 6	Casing Depth (ft): 5	Water Level (ft.): First -	Completion - / 24 HR. -
Casing Hammer: -	Weight (lbs): - / Drop (in): -	Drilling Foreman:	
Sampler: 18" Split Spoon		Field Engineer: Eros A. Bilyeu, P.G.	
Sampler Hammer: Manual Downhole	Weight (lbs): 140 / Drop (in): 30		

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Contact Depth	Well Diagram
		4-6" Concrete	0						0.5	8" Emco-Weaton Traffic Rated Flush Mount
			1							Hydrated Bentonite Chips
			2							
			3							
			4							No. 8 Granular Bentonite
		Medium dense, yellowish brown (10YR 5/1), 85% fine to coarse subangular SAND, 15% gravel, (SP), dry. -Collected GCP-SG-1-5, 11:15.	5		SS	3	50/3"	0.0 No stains or odors		No. 3 Sand / 6" Stainless Steel Probe
			6							
			7							1/4" Teflon Tubing
			8							
			9						9.5	Hydrated Bentonite Chips
		Medium dense, yellowish brown (10YR 5/4), 95% fine subangular SAND, 5% fines, (SP), dry.	10		SS	18	7 / 8 / 10	0.0 No stains or odors		
			11							
			12							
			13							
			14							No. 8 Granular Bentonite
		Medium dense, yellowish brown (10YR 5/4), 95% fine subangular SAND, 5% fines, (SP), dry. -Collected GCP-SG-1-15, 11:25.	15		SS	18	10 / 11 / 18	0.0 No stains or odors	15.5	No. 3 Sand / 6" Stainless Steel Probe
		End of boring. Groundwater not encountered.	16							
			17							
			18							
			19							
			20							

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Log of Boring **MAP-SB-1** Sheet 1 of 2

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket	Date Started: 7/18/18 — Date Finished: 7/18/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 20.3 ft — Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed -, Undisturbed -, Core -
Casing Diameter (in): 6 — Casing Depth (ft): 5	Water Level (ft.): First -, Completion -, 24 HR. -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Field Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Medium dense, yellowish brown (10YR 5/4), 95% fine to coarse subangular SAND, 5% fines, (SP), dry.	0–4		SS	12	6, 9, 11	0.0 No stains or odors	-Collected MAP-SB-1-1 at 10:05.
		Medium dense, yellowish brown (10YR 5/4), 90% fine to medium subangular SAND, 10% fines, low plasticity, (SP-SM), dry.	4–6		SS	9	6, 8, 10	0.0 No stains or odors	-Collected MAP-SB-1-5 at 10:10.
		No recovery	9–11		SS	3	17, 21, 27	N/A	

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Log of Boring **MAP-SB-1** Sheet 2 of 2

Project	Project No.
Agua Mansa Commerce Park	721013501
Location	**Elevation and Datum**
Jurupa Valley, California	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
			14						
		Dense, yellowish brown (10YR 5/4), 85% fine to medium subangular SAND, 15% gravel, trace fines, (SP), dry.	15		SS	18	17 27 31	0.0 No stains or odors	-Collected MAP-SB-1-15 at 10:25.
			16						
			17						
			18						
			19						
		Medium dense, yellowish brown (10YR 5/4), 95% fine to coarse subangular SAND, 5% fines, (SP), dry.	20		SS	10	32 50/4"	0.0 No stains or odors	-Collected MAP-SB-1-20 at 10:35.
		End of boring. Groundwater not encountered.	21						
			22						
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						
			31						
			31.5						

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Log of Boring **MAP-SB-2** Sheet 1 of 3

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket	Date Started: 7/16/18 / Date Finished: 7/18/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 50 ft / Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 / Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Field Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole / Weight (lbs): 140 / Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation/Soil	0						
			1		SS	18	10 10 10	0.0 No stains or odors 7.12 pH	-Collected MAP-SB-2-1 at 12:30.
			2						
			3						
			4						
		Medium dense, yellowish brown (10YR 5/4), 85% fine subangular SAND, 15% fines, low plasticity, (SM), dry.	5		SS	18	7 10 13	0.0 No stains or odors 7.21 pH	-Collected MAP-SB-2-5 at 12:45.
			6						
			7						
			8						
			9						
		Medium dense, yellowish brown (10YR 5/4), 70% fine subangular SAND, 30% fines, low plasticity, (SM), dry.	10		SS	18	5 7 10	0.0 No stains or odors 7.18 pH	-Collected MAP-SB-2-10 at 13:00.
			11						
			12						
			13						
			14						
		Medium dense, yellowish brown (10YR 5/4), 80% fine to coarse subangular SAND, 20% fines, low to medium plasticity, low to medium dry strength, (SC), dry.	15		SS	18	13 18 24	0.0 No stains or odors	
			16						
			17						
			18						
			19						
		No sampling	20					N/A	Stopped drilling 7/16/18 at 13:30.

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Log of Boring **MAP-SB-2** Sheet 2 of 3

Project	Project No.
Agua Mansa Commerce Park	721013501
Location	**Elevation and Datum**
Jurupa Valley, California	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
			20						Resumed drilling 7/18/18.
			21						
			22						
			23						
			24						
		Stiff, yellowish brown (10YR 4/4), 80% CLAY, medium plasticity, medium dry strength, 20% fine subangular sand, (CL), dry.	25		SS	8	42 50/2"	0.0 No stains or odors	
			26						
			27						
			28						
			29						
		Medium dense, yellowish brown (10YR 5/4), 90% fine to coarse subangular SAND, 10% fines, low to medium plasticity, low to medium dry strength, (SP-SC), dry.	30		SS	18	32 12 10	0.0 No stains or odors	-Collected MAP-SB-2-30 at 08:50.
			31						
			32						
			33						
			34						
		Dense, yellowish brown (10YR 5/4), 85% fine subangular SAND, 15% fines, low to medium plasticity, low to medium dry strength, (SC), dry.	35		SS	12	20 22 27	0.0 No stains or odors	
			36						
			37						
			38						
			39						
		Very dense, yellowish brown (10YR 5/4), 90% fine subangular SAND, 10% fines, low to medium plasticity, low to medium dry strength, (SP-SC), dry.	40		SS	6	50/6"	0.0 No stains or odors	
			41						
			42						
			43						
		Very dense, yellowish brown (10YR 5/4), 90% fine subangular SAND, 10% fines, low to medium plasticity, low to medium dry strength, (SP-SC), dry.	44		SS	6	50/6"	0.0 No stains or odors	
			45						

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Log of Boring **MAP-SB-2** Sheet 3 of 3

Project	Project No.
Agua Mansa Commerce Park	721013501
Location	**Elevation and Datum**
Jurupa Valley, California	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
			45						
			46						
			47						
			48						
			49						
		Very dense, yellowish brown (10YR 5/4), 90% fine subangular SAND, 10% fines, low to medium plasticity, low to medium dry strength, (SP-SC), dry.	50		SS	6	50/6"	0.0 No stains or odors	-Collected MAP-SB-2-50 at 09:15.
		End of boring. Groundwater not encountered.	51						
			52						
			53						
			54						
			55						
			56						
			57						
			58						
			59						
			60						
			61						
			62						
			63						
			64						
			65						
			66						
			67						
			68						
			69						
			70						

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Log of Boring **MAP-SB-3** Sheet 1 of 3

Project: Agua Mansa Commerce Park		Project No.: 721013501	
Location: Jurupa Valley, California		Elevation and Datum:	
Drilling Company: Yellow Jacket		Date Started: 7/13/18	Date Finished: 7/13/18
Drilling Equipment: CME-95 Hollow Stem Auger		Completion Depth: 49.7 ft	Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit		Number of Samples: Disturbed -	Undisturbed - / Core -
Casing Diameter (in): 6	Casing Depth (ft): 5	Water Level (ft.): First -	Completion - / 24 HR. -
Casing Hammer: -	Weight (lbs): - / Drop (in): -	Drilling Foreman:	
Sampler: 18" Split Spoon		Field Engineer: Eros A. Bilyeu, P.G.	
Sampler Hammer: Manual Downhole	Weight (lbs): 140 / Drop (in): 30		

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Loose, yellowish brown (10YR 5/4), 95% fine subangular SAND, 5% fines, (SP), dry.	0–4			12		0.0 No stains or odors	-Collected MAP-SB-3-1 at 15:10.
		Medium dense, yellowish brown (10YR 5/4), 85% fine subangular SAND, 15% fines, low plasticity, (SM), dry.	5–9		SS	18	9 10 11	0.0 No stains or odors	-Collected MAP-SB-3-5 at 12:45.
		Medium dense, yellowish brown (10YR 5/4), 90% fine subangular SAND, 10% fines, low to medium plasticity, medium dry strength, (SP-SC), dry.	10–14		SS	18	10 12 14	0.0 No stains or odors	-Collected MAP-SB-3-10 at 13:00.
		Medium dense, yellowish brown (10YR 5/4), 80% fine subangular SAND, 20% fines, low to medium plasticity, low to medium dry strength, (SC), dry.	15–19		SS	18	7 10 13	0.0 No stains or odors	
		Dense, yellowish brown (10YR 5/4), 90% fine subangular	20		SS	18	10		

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Log of Boring **MAP-SB-3** Sheet 2 of 3

Project	Project No.
Agua Mansa Commerce Park	721013501
Location	**Elevation and Datum**
Jurupa Valley, California	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		SAND, 10% fines, low to medium plasticity, low to medium dry strength, (SP-SC), dry.	20		SS	18	15 17	0.0 No stains or odors	
			21						
			22						
			23						
			24						
		Dense, yellowish brown (10YR 5/4), 95% fine subangular SAND, 5% fines, (SP), dry.	25		SS	18	12 17 21	0.0 No stains or odors	
			26						
			27						
			28						
			29						
		Very dense, yellowish brown (10YR 5/4), 70% fine subangular SAND, 30% fines, low to medium plasticity, low to medium dry strength, (SC), dry.	30		SS	15	23 32 50/3"	0.0 No stains or odors	-Collected MAP-SB-3-30 at 14:40.
			31						
			32						
			33						
			34						
		Hard, yellowish brown (10YR 4/3), 60% CLAY, low to medium plasticity, low to medium dry strength, 40% fine subangular sand, (CL), dry.	35		SS	3	50/3"	0.0 No stains or odors	
			36						
			37						
			38						
			39						
		Very dense, yellowish brown (10YR 4/3), 85% fine subangular SAND, 15% fines, low to medium plasticity, (SC), dry.	40		SS	2	50/2"	0.0 No stains or odors	
			41						
			42						
			43						
			44						
		Very dense, yellowish brown (10YR 3/3), 90% fine subangular	45		SS	3	50/3"	0.0 No stains or odors	

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Log of Boring **MAP-SB-3** Sheet 3 of 3

Project	Project No.
Agua Mansa Commerce Park	721013501
Location	**Elevation and Datum**
Jurupa Valley, California	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		SAND, 10% fines, low to medium plasticity, low to medium dry strength, (SP-SC), dry.	45						
			46						
			47						
			48						
			49						
		Very dense, yellowish brown (10YR 3/3), 90% fine subangular SAND, 10% fines, low to medium plasticity, low to medium dry strength, (SP-SC), dry.	50		SS	2	50/2"	0.0 No stains or odors	-Collected MAP-SB-3-50 at 14:50.
		End of boring. Groundwater not encountered.	51						
			52						
			53						
			54						
			55						
			56						
			57						
			58						
			59						
			60						
			61						
			62						
			63						
			64						
			65						
			66						
			67						
			68						
			69						
			70						

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Log of Boring **MAP-SG-1** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket	Date Started: 7/11/18 — Date Finished: 7/11/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 15.5 ft — Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 — Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Field Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Contact Depth	Well Diagram
		4-6" Asphalt	0						0.5	8" Emco-Weaton Traffic Rated Flush Mount
			1							Hydrated Bentonite Chips
			2							
			3							
			4							No. 8 Granular Bentonite
		Medium dense, yellowish brown (10YR 5/4), 75% fine to medium subangular SAND, 15% gravel, 5% nonplastic silt, (SP-SM), dry. -Collected MAP-SG-1-5 at 11:35.	5		SS	12	8 10 11	0.0 No stains or odors		No. 3 Sand 6" Stainless Steel Probe
			6							
			7							1/4" Teflon Tubing
			8							
			9						9.5	Hydrated Bentonite Chips
		Dense, yellowish brown (10YR 5/4), 80% fine to medium subangular SAND, 15% gravel, 5% nonplastic fines, (SP), dry.	10		SS	12	7 10 21	0.0 No stains or odors		
			11							
			12							
			13							
			14							No. 8 Granular Bentonite
		Very dense, yellowish brown (10YR 5/4), 80% fine to medium subangular SAND, 15% gravel, 5% nonplastic fines, (SP), dry. -Collected MAP-SG-1-15 at 11:45.	15		SS	12	30 40 50/5"	0.0 No stains or odors		No. 3 Sand 6" Stainless Steel Probe
		End of boring. Groundwater not encountered.	16						15.5	
			17							
			18							
			19							
			20							

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Log of Boring **MAP-SG-2** Sheet 1 of 1

Project: Agua Mansa Commerce Park		Project No.: 721013501	
Location: Jurupa Valley, California		Elevation and Datum:	
Drilling Company: Yellow Jacket		Date Started: 7/11/18	Date Finished: 7/11/18
Drilling Equipment: CME-95 Hollow Stem Auger		Completion Depth: 15.7 ft	Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit		Number of Samples: Disturbed -	Undisturbed - / Core -
Casing Diameter (in): 6	Casing Depth (ft): 5	Water Level (ft.): First -	Completion - / 24 HR. -
Casing Hammer: -	Weight (lbs): - / Drop (in): -	Drilling Foreman:	
Sampler: 18" Split Spoon		Field Engineer: Eros A. Bilyeu, P.G.	
Sampler Hammer: Manual Downhole	Weight (lbs): 140 / Drop (in): 30		

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Contact Depth	Well Diagram
		6" Asphalt	0						0.5	8" Emco-Weaton Traffic Rated Flush Mount
		Medium dense, yellowish brown (10YR 5/4), 80% fine to coarse subangular SAND, 15% gravel, 5% nonplastic fines, (SP), dry. -Collected MAP-SG-2-5 at 08:55.	5		SS	18	9 10 11	2.9 No stains or odors		Hydrated Bentonite Chips; No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe; 1/4" Teflon Tubing
		Very dense, yellowish brown (10YR 5/4), 80% fine to coarse subangular SAND, 15% gravel, 5% nonplastic fines, (SP), dry.	10		SS	15	30 40 50/3"	0.5 No stains or odors		Hydrated Bentonite Chips
		Very dense, yellowish brown (10YR 5/4), fine to coarse subangular SAND, some gravel, trace silt, (SP), dry. -Collected MAP-SG-2-15 at 09:10.	15		SS	14	12 24 50/2"	0.2 No stains or odors	15.7	No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe
		End of boring. Groundwater not encountered.	16							
			20							

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Log of Boring **MAP-SG-3** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket	Date Started: 7/11/18 / Date Finished: 7/11/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 15.5 ft / Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 / Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Field Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole / Weight (lbs): 140 / Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Contact Depth	Well Diagram
		Medium dense, yellowish brown (10YR 5/4), 90% fine to coarse subangular SAND, 10% fines, trace gravel, (SP-SM), dry. -Collected MAP-SG-3-5 at 14:10.	0–5		SS	13	11 / 12 / 13	0.0 No stains or odors		8" Emco-Weaton Traffic Rated Flush Mount; Hydrated Bentonite Chips; No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe; 1/4" Teflon Tubing
		Dense, yellowish brown (10YR 5/4), 95% fine to coarse subangular SAND, 5% fines, trace gravel, (SP), dry.	5–9.5		SS	12	15 / 17 / 20		9.5	Hydrated Bentonite Chips
		Very dense, yellowish brown (10YR 5/4), 95% fine to coarse subangular SAND, 5% fines, trace gravel, (SP), dry. -Collected MAP-SG-3-15 at 14:25.	9.5–15		SS	12	18 / 50/6"	0.0 No stains or odors	15.5	No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe
		End of boring. Groundwater not encountered.	15–20							

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Log of Boring **MAP-SG-4** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket	Date Started: 7/11/18 / Date Finished: 7/11/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 15.5 ft / Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 / Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Field Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole / Weight (lbs): 140 / Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Contact Depth	Well Diagram
		Dense, yellowish brown (10YR 5/4), 90% fine to coarse SAND, 10% fines, (SP-SM), dry. -Collected MAP-SG-4-5 at 15:20.	0–5		SS	18	8 17 19	0.0 No stains or odors		8" Emco-Weaton Traffic Rated Flush Mount; Hydrated Bentonite Chips; No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe; 1/4" Teflon Tubing
		No recovery, large gravels or rocks in sampler shoe.	5–10		SS	0	20 22 28	N/A		Hydrated Bentonite Chips
		Very dense, yellowish brown (10YR 5/4), 95% fine to coarse SAND, 5% fines, (SP), dry. -Collected MAP-SG-4-15 at 15:30.	10–14		SS	8	30 50/2"	0.0 No stains or odors	14.0	No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe
		End of boring. Groundwater not encountered.	14–15.5						15.5	
			15.5–20							

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Log of Boring **MAP-SG-5** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 15.5 ft / Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 / Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Field Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole / Weight (lbs): 140 / Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Contact Depth	Well Diagram
		Medium dense, yellowish brown (10YR 5/4), 90% fine to coarse subangular SAND, 10% nonplastic fines, trace gravel, (SP-SM), dry. -Collected MAP-SG-5-5 at 11:30.	5		SS	18	10 12 13	0.0 No stains or odors		8" Emco-Weaton Traffic Rated Flush Mount; Hydrated Bentonite Chips; No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe; 1/4" Teflon Tubing
		Very dense, yellowish brown (10YR 5/4), 95% fine to coarse subangular SAND, 5% fines, trace gravel, (SP), dry.	9.5 / 10		SS	3	50/6"	0.0 No stains or odors	9.5	Hydrated Bentonite Chips
		Very dense, yellowish brown (10YR 5/4), 85% fine to coarse subangular SAND, 15% gravel, (SP), dry. -Collected MAP-SG-5-15 at 11:40.	15		SS	12	30 40 50	0.0 No stains or odors	15.5	No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe
		End of boring. Groundwater not encountered.	16							

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Log of Boring **MAP-SG-6** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket	Date Started: 7/12/18 — Date Finished: 7/12/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 15.5 ft — Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit, 10" Dia. Bulldog Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 — Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Field Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Contact Depth	Well Diagram
		6-8" Concrete with Rebar	0						0.7	8" Emco-Weaton Traffic Rated Flush Mount
			1							Hydrated Bentonite Chips
			2							
			3							
			4							No. 8 Granular Bentonite
		Medium dense, yellowish brown (10YR 5/4), 95% fine to coarse subangular SAND, 5% fines, trace gravel, (SP), dry. -Collected MAP-SG-6-5 at 14:10.	5		SS	12	10 11 13	0.0 No stains or odors		No. 3 Sand 6" Stainless Steel Probe
			6							
			7							1/4" Teflon Tubing
			8							
			9							Hydrated Bentonite Chips
		Medium dense, yellowish brown (10YR 5/4), 95% fine to coarse subangular SAND, 5% fines, trace gravel, (SP), dry.	10		SS	12	20 11 13	0.0 No stains or odors		
			11							
			12							
			13							
			14							No. 8 Granular Bentonite
		Very dense, yellowish brown (10YR 5/4), 95% fine to coarse subangular SAND, 5% fines, trace gravel, (SP), dry. -Collected MAP-SG-6-15 at 14:20.	15		SS	12	27 50/3"	0.0 No stains or odors	15.5	No. 3 Sand 6" Stainless Steel Probe
		End of boring. Groundwater not encountered.	16							
			17							
			18							
			19							
			20							

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Log of Boring **MAP-SG-7** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 15.5 ft / Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 / Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Field Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole / Weight (lbs): 140 / Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Contact Depth	Well Diagram
		Medium dense, yellowish brown (10YR 5/4), 95% fine to coarse subangular SAND, 5% fines, trace gravel, (SP), dry. -Collected MAP-SG-7-5 at 09:55.	5		SS	12	10 12 13	0.0 No stains or odors		8" Emco-Weaton Traffic Rated Flush Mount; Hydrated Bentonite Chips; No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe; 1/4" Teflon Tubing
		No recovery, large gravels or rocks in sampler shoe.	10		SS	0	12 30 50/2"	0.0 No stains or odors		Hydrated Bentonite Chips
		Very dense, yellowish brown (10YR 5/4), 80% fine to coarse subangular SAND, 15% gravel, 5% fines, (SP), dry. -Collected MAP-SG-7-15 at 10:05.	14		SS	12	50/6"	0.0 No stains or odors	15.5	No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe
		End of boring. Groundwater not encountered.	15							
			20							

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Log of Boring **SMC-SB-1** Sheet 1 of 2

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket Drilling	Date Started: 7/18/18 / Date Finished: 7/18/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 33 ft / Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 / Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Inspecting Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole / Weight (lbs): 140 / Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Very dense, yellowish brown (10YR 6/2), 70% fine to coarse subangular SAND, 15% fines, low to medium plasticity, 15% gravel, (SC), dry.	0–5		SS	6	50/6"	0.0 No stains or odors	-Collected SMC-SB-1-5 at 14:45.
		Very dense, yellowish brown (10YR 6/2), 70% fine to coarse subangular SAND, 15% fines, low to medium plasticity, 15% gravel, (SC), dry.	10		SS	18	17 18 19	0.0 No stains or odors	-Collected SMC-SB-1-10 at 14:55.
		Very dense, yellowish brown (10YR 6/2), 70% fine to coarse subangular SAND, 15% fines, low to medium plasticity, 15% gravel, (SC), dry.	15		SS	18	10 20 13	0.0 No stains or odors	
			20		SS	0	25		

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Log of Boring **SMC-SB-1** Sheet 2 of 2

Project	Project No.
Agua Mansa Commerce Park	721013501
Location	**Elevation and Datum**
Jurupa Valley, California	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		No recovery, very dense.	20		SS	0	50/6"	0.0 No stains or odors	
			21						
			22						
			23						
			24						
		Very dense, yellowish brown (10YR 8/1), 75% fine to medium subangular to angular SAND, 15% gravel, 10% fines, (SP-SC), dry.	25		SS	6	18 50/6"	0.0 No stains or odors	-Small wooden debris.
			26						
			27						
			28						
			29						
		Very dense, yellowish brown (10YR 8/1), 75% fine to medium subangular to angular SAND, 15% gravel, 10% fines, (SP-SC), dry.	30		SS	2	50/2"	0.0 No stains or odors	-Collected SMC-SB-1-30 at 15:15.
			31						
			32						
			33						
		Boring Terminated at 33 ft. bgs due to refusal. Groundwater not encountered.	34						
			35						
			36						
			37						
			38						
			39						
			40						
			41						
			42						
			43						
			44						
			45						

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Log of Boring **SMC-SB-2** Sheet 1 of 2

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket Drilling	Date Started: 7/18/18 / Date Finished: 7/18/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 45 ft / Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 / Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Inspecting Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole / Weight (lbs): 140 / Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dense, yellowish brown (10YR 5/4), 90% fine to coarse subangular SAND, 10% fines, trace gravel, (SP-SC), dry.	0						
			1		SS	12	7 9 10	0.0 No stains or odors	
			2						
			3						
			4						
		Dense, yellowish brown (10YR 5/4), 90% fine to coarse subangular SAND, 10% fines, trace gravel, (SP-SC), dry.	5		SS	12	8 10 27	0.0 No stains or odors	
			6						
			7						
			8						
			9						
		Dense, yellowish brown (10YR 4/4), 90% fine to coarse subangular SAND, 10% fines, trace gravel, (SP-SC), dry.	10		SS	12	18 21 23	0.0 No stains or odors	-Collected SMC-SB-2-10 at 12:00. -Small carpet debris.
			11						
			12						
			13						
			14						
		Dense, yellowish brown (10YR 5/4), 90% fine to coarse subangular SAND, 10% fines, trace gravel, (SP-SC), dry.	15		SS	12	19 20 25	0.0 No stains or odors	
			16						
			17						
			18						
			19						
			20		SS	18	17		

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Log of Boring **SMC-SB-2** Sheet 2 of 2

Project	Project No.
Agua Mansa Commerce Park	721013501
Location	**Elevation and Datum**
Jurupa Valley, California	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dense, yellowish brown (10YR 5/4), 90% fine to coarse subangular SAND, 10% fines, trace gravel, (SP-SC), dry.	20		SS	18	18 20	0.0 No stains or odors	
			21						
			22						
			23						
			24						
		Dense, yellowish brown (10YR 5/4), 75% fine to coarse subangular sand, 25% fines, low plasticity, (SC), dry.	25		SS	18	20 23 24	0.0 No stains or odors	
			26						
			27						
			28						
			29						
		Dense, yellowish brown (10YR 5/4), 70% fine subangular SAND, 30% fines, low to medium plasticity, smeared pinkish-red mottle, (SC), dry.	30		SS	18	18 19 20	0.0 No stains or odors	-Collected SMC-SB-2-30 at 14:00.
			31						
			32						
			33						
			34						
		Dense, yellowish brown (10YR 5/4), 70% fine subangular SAND, 30% fines, low to medium plasticity, (SC), dry.	35		SS	18	20 21 24	0.0 No stains or odors	
			36						
			37						
			38						
			39						
		Dense, yellowish brown (10YR 6/4), 95% fine to coarse subangular SAND, 5% fines, trace gravel, (SP), dry.	40		SS	18	21 23 27	0.0 No stains or odors	-Drill bit grinding at 40 ft.
			41						
			42						
			43						
		Boring terminated at 45 ft. bgs due to refusal. Groundwater not encountered.	44						-Hard rock / grinding at 45 ft.
			45						

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Log of Boring **SMC-SB-3** Sheet 1 of 2

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket Drilling	Date Started: 7/19/18 / Date Finished: 7/19/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 40 ft / Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 / Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Inspecting Engineer: Klara Perkins, Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole / Weight (lbs): 140 / Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Very dense, yellowish brown (10YR 5/4), 80% fine to coarse subangular SAND, 15% gravel, 5% fines, (SP), dry.	0–5		SS	3	50/3"	0.0 No stains or odors	-Debris including asphalt, plastic, corrugated pipe.
		Dense, yellowish brown (10YR 5/4), 80% fine to coarse subangular SAND, 15% gravel, 5% fines, (SP), dry.	10		SS	12	10 15 23	0.0 No stains or odors	-Collected SMC-SB-3-10 at 09:30.
		Dense, yellowish brown (10YR 8/1), 80% fine to coarse subangular SAND, 20% gravel, large pieces of gravel, (SP), dry.	15		SS	12	10 15 28	0.0 No stains or odors	
			20		SS	12	28		-Debris clear / blue plastic sheeting.

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Log of Boring **SMC-SB-3** Sheet 2 of 2

Project	Project No.
Agua Mansa Commerce Park	721013501
Location	**Elevation and Datum**
Jurupa Valley, California	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Dense, yellowish brown (10YR 6/4), 80% fine to coarse subangular SAND, 20% gravel, (SP), dry.	20		SS	12	33 10	0.0 No stains or odors	-Collected SMC-SB-3-20 at 09:45.
		Very dense, yellowish brown (10YR 5/3), 80% fine to coarse subangular SAND, 15% gravel, 5% fines, (SP), dry.	25		SS	6	50/6"	0.0 No stains or odors	
		Very dense, yellowish brown (10YR 5/3), 80% fine to coarse subangular SAND, 15% gravel, 5% fines, large pieces of weathered granite or diorite, (SP), dry.	30		SS	6	50/6"	0.0 No stains or odors	-Collected SMC-SB-3-30 at 10:15.
		Very dense, yellowish brown (10YR 5/3), 80% fine to coarse subangular SAND, 15% gravel, 5% fines, large pieces of weathered granite or diorite, (SP), dry.	35		SS	6	50/6"	0.0 No stains or odors	
		Very dense, yellowish brown (10YR 5/1), 90% fine to coarse subangular SAND, 10% gravel, large peices of weathered granite, (SP), dry.	40		SS	3	50/3"	0.0 No stains or odors	-Collected SMC-SB-3-40 at 10:30. -Drill bit grinding at 40 ft.
		Boring terminated at 40 ft. bgs due to refusal. Groundwater not encountered.	45						

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Log of Boring **WCP-SG-1** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket	Date Started: 7/13/18 — Date Finished: 7/13/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 15.5 ft — Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 — Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Field Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Contact Depth	Well Diagram
		6" Limestone.	0							8" Emco-Weaton Traffic Rated Flush Mount
		1.5-2' Weathered limestone.	1							Hydrated Bentonite Chips
			2						2.0	
			3							
			4							No. 8 Granular Bentonite
		Medium stiff, yellowish brown (10YR 6/4), sandy lean CLAY, 60% fines, low plasticity, low dilatancy, low to medium dry strength, 40% fine subangular sand, (CL), bottom 6" of poorly graded sand, yellowish brown (10YR 4/4), 95% fine subangular sand, 5% fines, dry. -Collected WCP-SG-1-5, 08:15.	5		SS	18	10 11 12	0.0 No stains or odors		No. 3 Sand
			6							6" Stainless Steel Probe
			7							1/4" Teflon Tubing
			8							
			9						9.5	Hydrated Bentonite Chips
		Medium dense, yellowish brown (10YR 4/4), 95% fine subangular SAND, 5% fines, (SP), dry.	10		SS	12	10 12 13	0.0 No stains or odors		
			11							
			12							
			13							
			14							No. 8 Granular Bentonite
		Dense, yellowish brown (10YR 5/4), 95% fine to medium subangular SAND, 5% fines, (SP), dry. -Collected WCP-SG-1-15, 08:30.	15		SS	18	10 15 23	0.0 No stains or odors		No. 3 Sand
		End of boring. Groundwater not encountered.	16						15.5	6" Stainless Steel Probe
			17							
			18							
			19							
			20							

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Log of Boring **WCP-SG-2** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket	Date Started: 7/12/18 — Date Finished: 7/12/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 15.5 ft — Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 — Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Field Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole — Weight (lbs): 140 — Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Contact Depth	Well Diagram
		Medium dense, yellowish brown (10YR 5/4), 95% fine subangular SAND, 5% nonplastic fines, trace gravel, (SP), dry. -Collected WCP-SG-2-5 at 16:00.	0–9.5		SS	18	11 13 15	0.0 No stains or odors		8" Emco-Weaton Traffic Rated Flush Mount; Hydrated Bentonite Chips; No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe; 1/4" Teflon Tubing
		Medium dense, yellowish brown (10YR 5/4), 70% fine subangular SAND, 30% fines, low to medium plasticity, low to medium dry strength, (SC-SM), wet.	9.5–14.0		SS	18	8 10 12	0.0 No stains or odors	9.5	Hydrated Bentonite Chips
		Medium dense, yellowish brown (10YR 5/4), 95% fine subangular SAND, 5% nonplastic fines, trace gravel, (SP), dry. -Collected WCP-SG-2-15 at 16:18.	14.0–15.5		SS	18	10 12 20	0.0 No stains or odors	14.0	No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe
		End of boring. Groundwater not encountered.	15.5–20						15.5	

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Log of Boring **WCP-SG-3** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: Yellow Jacket	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CME-95 Hollow Stem Auger	Completion Depth: 15.5 ft / Rock Depth: -
Size and Type of Bit: 6" Dia. Rock Bit	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): 6 / Casing Depth (ft): 5	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman:
Sampler: 18" Split Spoon	Field Engineer: Eros A. Bilyeu, P.G.
Sampler Hammer: Manual Downhole / Weight (lbs): 140 / Drop (in): 30	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Contact Depth	Well Diagram
		Medium dense, yellowish brown (10YR 5/4), 70% fine to medium subangular SAND, 30% fines, low plasticity, rapid dilatancy, no dry strength, (SM), dry. -Collected WCP-SG-3-5 at 09:40.	0–9	SS	SS	18	7 9 6	0.0 No stains or odors		8" Emco-Weaton Traffic Rated Flush Mount; Hydrated Bentonite Chips; No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe; 1/4" Teflon Tubing
		Dense, yellowish brown (10YR 5/4), 90% fine to coarse subangular SAND, 10% fines, low plasticity, trace gravel, (SP-SM), dry.	9–14	SS	SS	12	10 12 50/2"	0.0 No stains or odors	9.5	Hydrated Bentonite Chips
		Dense, yellowish brown (10YR 5/4), 90% fine to coarse subangular SAND, 10% fines, low plasticity, trace gravel, (SP-SM), dry. -Collected WCP-SG-3-15 at 09:55.	14–15	SS	SS	12	10 13 18	0.0 No stains or odors	15.5	No. 8 Granular Bentonite; No. 3 Sand; 6" Stainless Steel Probe
		End of boring. Groundwater not encountered.	15–20							

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APPENDIX B
Trench Logs

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Log of Boring **GCP-LT-1** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/20/18 / Date Finished: 7/20/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 1 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		Brown, fine-grained SILTY SAND with gravel and cobbles, [FILL]. Refusal (5 attempts).	1	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-1-1 at 1 ft. bgs.
			2						
			3						
			4						
			5						
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **GCP-LT-2** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/18/18 / Date Finished: 7/18/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 10 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Soil cover.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors, loose.	1	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-4-1 at 1 ft. bgs.
		Color change to darker brown.	2						
			3						
			4						
			5	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-4-5 at 5 ft. bgs.
			6						
			7						
			8						
			9						
			10	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-4-10 at 10 ft. bgs.
		TD 10 ft. bgs. due to trench collapse. Wall stability could not be maintained.	11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **GCP-LT-3** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/19/18 / Date Finished: 7/19/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 12 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Soil, cobble and GRAVEL surface.	0						
		Tan, fine-grained SILTY SAND.							
		Brown, fine-grained SILTY SAND, moist.	1	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-3-1 at 1 ft. bgs.
			2						
			3						
			4						
		Loose.	5	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-3-5 at 5 ft. bgs.
			6						
			7						
			8						
			9						
			10	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-3-10 at 10 ft. bgs.
			11						
		TD 12 ft. bgs. due to trench collapse.	12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **GCP-LT-4** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/19/18 / Date Finished: 7/19/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 18 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Brown, fine-grained SILTY SAND, cementation, no odor, dry.	0–1	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-4-1 at 1 ft. bgs.
		Moist.	4–5	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-4-5 at 5 ft. bgs.
		Moist.	9–10	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-4-10 at 10 ft. bgs.
		Moist.	14–15	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-4-15 at 15 ft. bgs.
		TD 18 ft. bgs. Trench Collapsed.	18						

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Log of Boring **GCP-LT-5** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/20/18 / Date Finished: 7/20/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 1 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in		Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		Brown, fine-grained SILTY SAND with gravel and cobbles, [FILL].	1						
		Refusal (3 attempts).	2						
			3						
			4						
			5						
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **GCP-LT-6** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/19/18 / Date Finished: 7/19/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 18 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		CEMENT surface.	0						
		Dark brown, fine-grained SILTY SAND, moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-6-1 at 1 ft. bgs.
		Brown, few cobbles of gray cement, some pieces of red clay / CKD.	2–4						
			5	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-6-5 at 5 ft. bgs.
			6–9						
		Brown, fine-grained SILTY SAND, moist.	10	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-6-10 at 10 ft. bgs.
			11–14						
		Very hard object, apparent wire, possbile pipe.	15						
		Cobbles.	16–17						
		Very dense material.	18						
		TD 18 ft. bgs.	19–20						

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Log of Boring **GCP-LT-7** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/20/18 / Date Finished: 7/20/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 20 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		CEMENT surface.	0						
		Brown, fine-grained SILTY SAND, moist.	1	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-7-1 at 1 ft. bgs.
			5	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-7-5 at 5 ft. bgs.
			10	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-7-10 at 10 ft. bgs.
			15	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-7-15 at 15 ft. bgs.
		TD 20 ft. bgs.	20						

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Log of Boring **GCP-LT-8** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/20/18 / Date Finished: 7/20/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 20 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		CEMENT surface.	0						
		Brown, fine-grained SILTY SAND, moist.	1	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-8-1 at 1 ft. bgs.
			2						
			3						
			4						
		Light brown, very fine-grained.	5	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-8-5 at 5 ft. bgs.
			6						
			7						
		Reddish brown.	8						
			9						
		Brown, fine-grained SILTY SAND, moist, loose.	10	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-8-10 at 10 ft. bgs.
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
		TD 20 ft. bgs.	20						

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Log of Boring **GCP-LT-9** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/20/18 / Date Finished: 7/20/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 15 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, dry.	1	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-9-1 at 1 ft. bgs.
			2						
			3						
			4						
		Brown with reddish tint, fine-grained SILTY SAND, dry, loose.	5	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-9-5 at 5 ft. bgs.
			6						
			7						
			8						
			9						
		Brown, fine-grained SILTY SAND, some CKD pieces, dry.	10	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-9-10 at 10 ft. bgs.
			11						
		SILTY SAND mixed with cobble sized CKD pieces.	12						
			13						
			14						
			15						
		TD 15 ft. bgs. due to trench collapse.	16						
			17						
			18						
			19						
			20						

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Log of Boring **GCP-LT-10** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/23/18 / Date Finished: 7/23/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 20 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Eros A. Bilyeu
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Yellowish brown, poorly graded SAND with silt, dry, medium dense.	1	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-10-1 at 07:50.
		6" layer of white cemented limestone.	4						
		Yellowish brown, poorly graded SAND with silt, dry, medium dense.	5	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-10-5 at 08:07.
			10	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-10-10 at 08:00.
		Yellowish brown, CLAYEY SAND, fine subangular, low to medium plasticity.	15	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-10-15 at 08:13.
		TD 20 ft. bgs.	20					0.0 No stains or odors	

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Log of Boring **GCP-LT-11** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/23/18 — Date Finished: 7/23/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 20 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Eros A. Bilyeu
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Yellowish brown, poorly graded SAND with white gravel, dry.	0–1					0.0 No stains or odors	
		Thin layers of white cement / concrete.	1–5						
		Yellowish brown, poorly graded SAND with clay, dry.	5–10					0.0 No stains or odors	
			10–15	Sample	GRAB			0.0 No stains or odors	- Collected GCP-LT-11-15 at 09:00.
		Poorly graded SAND with silt. TD 20 ft. bgs.	15–20						

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Log of Boring **MAP-LT-1** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/20/18 / Date Finished: 7/20/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 19 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Soil surface.	0						
		Brown, fine-grained SILTY SAND, dry, loose.	1	Sample	GRAB			0.0 No stains or odors	- Collected MAP-LT-1-1 at 1 ft. bgs.
		Color change to tan.	4						
		Gray, fine-grained SAND with silt and gravel, loose.	5	Sample	GRAB			0.0 No stains or odors	- Collected MAP-LT-1-5 at 5 ft. bgs.
		Gray, fine-grained SAND with silt and gravel, loose, some cobbles.	10	Sample	GRAB			0.0 No stains or odors	- Collected MAP-LT-1-10 at 10 ft. bgs.
		Cobbles.	15	Sample	GRAB			0.0 No stains or odors	- Collected MAP-LT-1-15 at 15 ft. bgs.
		TD 19 ft. bgs. due to trench collapse.	19						
			20						

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Log of Boring **MAP-LT-2** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/20/18 / Date Finished: 7/20/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 20 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		ASPHALT.	0						
		Brown, fine-grained SILTY SAND, moist, loose.	1	Sample	GRAB			0.0 No stains or odors	- Collected MAP-LT-2-1 at 1 ft. bgs.
			2						
			3						
			4						
		Gravelly.	5	Sample	GRAB			0.0 No stains or odors	- Collected MAP-LT-2-5 at 5 ft. bgs.
			6						
			7						
			8						
			9						
			10	Sample	GRAB			0.0 No stains or odors	- Collected MAP-LT-2-10 at 10 ft. bgs.
			11						
			12						
			13						
			14						
			15	Sample	GRAB			0.0 No stains or odors	- Collected MAP-LT-2-15 at 15 ft. bgs.
			16						
			17						
			18						
			19						
		TD 20 ft. bgs.	20						

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Log of Boring **MAP-LT-3** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/20/18 / Date Finished: 7/20/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 20 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, dry, loose.	1	Sample	GRAB			0.0 No stains or odors	- Collected MAP-LT-3-1 at 1 ft. bgs.
			2						
			3						
			4						
		Gray, fine-grained SAND with silt, gravels and cobbles, dry, loose.	5	Sample	GRAB			0.0 No stains or odors	- Collected MAP-LT-3-5 at 5 ft. bgs.
			6						
			7						
			8						
			9						
			10	Sample	GRAB			0.0 No stains or odors	- Collected MAP-LT-3-10 at 10 ft. bgs.
			11						
		Piece of plastic.	12						
			13						
			14						
			15	Sample	GRAB			0.0 No stains or odors	- Collected MAP-LT-3-15 at 15 ft. bgs.
			16						
		Increased gravel and cobbles.	17						
			18						
			19						
		Brown, fine-grained SILTY SAND with cobbles, loose. TD 20 ft. bgs.	20						

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Log of Boring **MSA-LT-1** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/23/18 / Date Finished: 7/23/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 20 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Eros A. Bilyeu
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Yellowish brown, CLAYEY SAND, dry, subangular sand, low to medium plasticity, low to medium dry strength.	0	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-1-1 at 12:15.
		SANDY CLAY, dry, low to medium plasticity, low to medium dry strength, subangular sand, pinkish red cemented fine-grained material.	5	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-1-5 at 12:20.
		Yellowish brown, CLAYEY SAND, fine subangular sand, low to medium plasticity, low to medium dry strength.	10	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-1-10 at 12:25.
		SANDY LEAN CLAY, dry low to medium plasticity, fine to medium subangular sand.	15					0.0 No stains or odors	
		TD 20 ft. bgs.	20					0.0 No stains or odors	

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Log of Boring **MSA-LT-2** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/23/18 / Date Finished: 7/23/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 20 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Eros A. Bilyeu
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Yellowish brown, CLAYEY SAND, dry, fine to medium subangular sand, low-medium plasticity, low to medium dry strength.	0–5	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-2-1 at 11:35.
		Yellowish brown, SANDY CLAY, dry, low-medium plasticity, low to medium dry strength, fine subangular sand.	5–10	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-2-5 at 11:40.
		Yellowish brown, SANDY LEAN CLAY, dry, low-medium plasticity, low to medium dry strength, fine subangular sand.	10–15	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-2-10 at 11:50.
		Yellowish brown, SANDY CLAY, dry, low to medium plasticity, low to medium dry strength, fine subangular sand, pinkish red cemented fine-grained material.	15–19	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-2-15 at 11:55.
		Same as above with more pinkish red cemented material. TD 20 ft. bgs.	19–20					0.0 No stains or odors	

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Log of Boring **MSA-LT-3** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/23/18 / Date Finished: 7/23/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 20 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Eros A. Bilyeu
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Yellowish brown, SANDY SILT/CLAY, dry, fine subangular, low to medium plasticity, low dry strength.	0–5	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-3-1 at 11:35.
		Yellowish brown, SANDY SILT/CLAY, dry, fine subangular, low to medium plasticity, low dry strength.	5–10	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-3-5 at 11:40.
		Yellowish brown, SANDY SILT/CLAY, dry, fine subangular, low to medium plasticity, low dry strength.	10–15	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-3-10 at 11:50.
		Yellowish brown, CLAY with SAND, dry, low to medium plasticity, low to medium dry strength.	15–19	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-3-15 at 11:55.
		Yellowish brown, CLAY with SAND, dry, low to medium plasticity, low to medium dry strength, pinkish red speckled / mottled cemented fine-grained material. TD 20 ft. bgs.	19–20					0.0 No stains or odors	

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Log of Boring **MSA-LT-4** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/23/18 / Date Finished: 7/23/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 20 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Eros A. Bilyeu
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Yellowish brown, CLAYEY SAND, fine subangular, low to medium plasticity. low to medium dry strength.	0–5	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-4-1 at 10:05.
		Yellowish brown, SANDY LEAN CLAY, dry, fine subangular sand, low to medium plasticity, low to medium dry strength.	5–10	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-4-5 at 10:10.
		Yellowish brown, SANDY LEAN CLAY, dry, fine subangular sand, low to medium plasticity, low to medium dry strength.	10–15	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-4-10 at 10:15.
		Yellowish brown, SANDY LEAN CLAY, dry, fine subangular sand, low to medium plasticity, low to medium dry strength.	15–19	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-4-15 at 10:20.
		Yellowish brown, SANDY LEAN CLAY, dry, fine subangular sand, low to medium plasticity, low to medium dry strength, cemented pink/red fine-grained material. TD 20 ft. bgs.	19–20						

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Log of Boring **MSA-LT-5** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/20/18 / Date Finished: 7/20/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 20 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gray CEMENT surface.	0						
		Pinkish CLAY with sand, fine-grained.							
		Brown, fine-grained SILTY SAND, moist, loose.	1	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-5-1 at 1 ft. bgs.
			2						
			3						
			4						
		Brown, fine-grained SILTY SAND with clay, firm, moist.	5	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-5-5 at 5 ft. bgs.
			6						
			7						
			8						
			9						
		Interbedded brown clay, firm, moist.	10						
			11						
			12						
			13						
			14						
		Brown, fine-grained SAND with silt, moist, loose.	15	Sample	GRAB			0.0 No stains or odors	- Collected MSA-LT-5-15 at 15 ft. bgs.
			16						
			17						
			18						
			19						
		TD 20 ft. bgs.	20						

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Log of Boring **SMC-LT-1** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/18/18 / Date Finished: 7/18/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 11 ft / Rock Depth: -
Size and Type of Bit:	Number of Samples: Disturbed / Undisturbed / Core
Casing Diameter (in): / Casing Depth (ft):	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: / Weight (lbs): / Drop (in):	Drilling Foreman:
Sampler:	Inspecting Engineer: Brad McCardell
Sampler Hammer: / Weight (lbs): / Drop (in):	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		ASPHALT.	0						
		Brown, fine-grained SILTY SAND with gravel [FILL].	1	Sample	GRAB			0.0 No stains or odors	-Collected Sample SMC-LT-1-1
		Pinkish gravelly CLAY, hard, dry, no odors.	2						
		Red, gravelly CLAY, hard, dry, no odors.	3						
		Brown, fine-grained SILTY SAND with concrete debris, cemented, dense, no odors.	4						
			5	Sample	GRAB			0.0 No stains or odors	-Collected Sample SMC-LT-1-5
			6						
		White CLAY, dry, hard.	7						
			8						
		Brown, fine-grained SILTY SAND with clay, dense, no odors.	9						
			10	Sample	GRAB			0.0 No stains or odors	-Collected Sample SMC-LT-1-10
		TD 11 ft. bgs. due to refusal.	11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SMC-LT-2** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/19/18 / Date Finished: 7/19/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit:	Number of Samples: Disturbed / Undisturbed / Core
Casing Diameter (in): / Casing Depth (ft):	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: / Weight (lbs): / Drop (in):	Drilling Foreman:
Sampler:	Inspecting Engineer: Brad McCardell
Sampler Hammer: / Weight (lbs): / Drop (in):	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		Pinkish brown, fine-grained SILTY SAND, [FILL], dry, cobbles, white limestone, no odors.	1	Sample	GRAB			0.0 No stains or odors	-Collected SMC-LT-2-1
		Small iron ore layer.	2	Sample	GRAB				-Collected SMC-LT-2-iron
		Brown, fine-grained SILTY SAND with cobbles, white cement / clay material.	3						
		Some gray cement debris, some red clay, some iron ore material in an isolated pocket.	4						
		TD 5 ft. bgs. due to refusal.	5	Sample	GRAB			0.0 No stains or odors	-Collected SMC-LT-2-5
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SMC-LT-3** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/19/18 / Date Finished: 7/19/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 12 ft / Rock Depth: -
Size and Type of Bit:	Number of Samples: Disturbed / Undisturbed / Core
Casing Diameter (in): / Casing Depth (ft):	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: / Weight (lbs): / Drop (in):	Drilling Foreman:
Sampler:	Inspecting Engineer: Brad McCardell
Sampler Hammer: / Weight (lbs): / Drop (in):	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		White SAND surface [FILL].	0						
		White, fine-grained SILTY SAND, dry, very dense, no odors.	1	Sample	GRAB			0.0 No stains or odors	-Collected SMC-LT-3-1
			2						
			3						
		White to light brown, SILTY SAND, moist, no odors, some minor amounts of clay, very dense.	4						
			5	Sample	GRAB			0.0 No stains or odors	-Collected SMC-LT-3-5
			6						
			7						
			8						
			9						
			10	Sample	GRAB			0.0 No stains or odors	-Collected SMC-LT-3-10
			11						
		TD 12 ft. bgs. due to refusal.	12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-1 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, few pebbles, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-1 Center Point
			2						
			3						
		Brown, fine-grained SAND with silt and gravel, few cobbles, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-1 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors, few pebbles.	1	Sample	GRAB			0.0 No stains or odors	SW-1 East Point
		Few cobbles.	2						
			3						
		Brown, fine-grained SAND with gravel and some clayey sand, no odors, few cobbles.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-1 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, few pebbles, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-1 North Point
			2						
			3						
		Brown, fine-grained SAND with silt and gravel, few cobbles, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-1 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, few pebbles, slightly moist, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-1 South Point
			2						
			3						
		Brown, fine-grained SAND with silt and gravel, moist, no odor.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-1 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, few pebbles, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-1 West Point
			2						
			3						
		Brown, fine-grained SAND with silt and gravels, moist, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-2 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation. Brown clay at surface.	0						
			1	Sample	GRAB			0.0 No stains or odors	
		Brown, fine-grained SILTY SAND, slightly moist, no odor.	2						SW-2 Center Point
			3						
		Brown, fine-grained SAND with silt and gravel, few pebbles, no odors.	4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-2 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown clay at surface.							
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-2 East Point
			2						
			3						
		Brown, fine-grained SAND with gravel, no odors.	4						
		GRAVEL at bottom of pit.							
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-2 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown clay at surface.							
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-2 North Point
			2						
			3						
		Brown, fine-grained SAND with silt and gravel, few pebbles, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-2 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown clay at surface.							
		Brown, fine-grained SILTY SAND, slightly moist, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-2 South Point
			2						
			3						
		Brown, fine-grained SAND with silt, moist, many pebbles, no odor.	4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-2 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-2 West Point
		No odors.	2						
			3						
		Brown, fine-grained SAND with silt, moist, few pebbles, no odor.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-3 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Gray color at surface.							
		Brown, fine-grained SILTY SAND, moist, few pebbles, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-3 Center Point
			2						
			3						
		Medium-grained SILTY SAND.	4						
		Brown, fine-grained SAND with silt, moist, no odor.	5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-3 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND with gravel, moist, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-3 East Point
		Brown, fine to medium-grained SILTY SAND, few pebbles, moist, no odor.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6–20						

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Log of Boring **SW-3 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation and gravel.	0						
		Brown, fine-grained SILTY SAND, slightly moist, few pebbles, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-3 North Point
		Brown, fine to medium-grained SILTY SAND with pebbles and small cobbles, no odor.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6–20						

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Log of Boring **SW-3 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Surficial gray material. Brown, fine-grained SILTY SAND, slightly moist, few pebbles, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-3 South Point
		Cobbles.	2						
			3						
		Coarse-grained SAND, no odor.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-3 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Gray, fine-grained SILTY SAND, slightly moist	1	Sample	GRAB			0.0 No stains or odors	SW-3 West Point
		Brown, fine-grained SILTY SAND, few pebbles, moist, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6–20						

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Log of Boring **SW-4 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Dark brown, fine-grained SILTY SAND, slightly moist, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-4 Center Point
		Moist.	2						
		TD 5 ft. bgs.	3						
			4						
			5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-4 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors, some cementation.	1	Sample	GRAB			0.0 No stains or odors	SW-4 East Point
			2						
			3						
			4						
		Light brown, moist.	5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-4 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, some cementation, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-4 North Point
		Moist.	2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
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			18						
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Log of Boring **SW-4 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, some cementation, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-4 South Point
		Few cobbles.	2						
			3						
		Brown, fine-grained SILTY SAND, moist, no odor.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-4 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 — Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-4 West Point
		Some gravel.	2						
		Light brown, some cobbles.	3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-5 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-5 Center Point
		Darker brown.	2						
			3						
		Moist.	4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-5 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-5 East Point
		Light reddish brown.	2						
		Moist, hard, clumps.	3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-5 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-5 North Point
		Slightly moist.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6–20						

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Log of Boring **SW-5 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-5 South Point
		Color change to light reddish brown at 3.5 ft. Higher moisture, some cementation.	2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-5 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-5 West Point
		Dark brown.	2						
			3						
		Moist.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-6 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 — Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-6 Center Point
			2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-6 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 — Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-6 East Point
		Light brown, moist.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			20						

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Log of Boring **SW-6 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-6 North Point
		Light reddish brown, cementation, clumps, moist.	2						
			3						
		Less silt, some medium-grained sand.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-6 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, some cementation, clumps, slightly moist, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-6 South Point
		Light brown, moist.	2–4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6–20						

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Log of Boring **SW-6 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-6 West Point
			2						
			3						
			4						
		Light reddish brown, moist.		Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	5						
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-7 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Gray, fine-grained SILTY SAND, some clay interbedded, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-7 Center Point
		Brown, fine-grained SILTY SAND, moist, no odor.	3						
		Interbedded CLAYEY SAND to fine-grained silty sand, no odor, moist.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-7 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND with clay, no odor, dry.	1	Sample	GRAB			0.0 No stains or odors	SW-7 East Point
			2						
			3						
		Brown CLAY and fine-grained silty sand interbedded, no odor, dry, some minor CKD pieces.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-7 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, dry, no odors, some clay interbedded, few pieces of CKD.	1	Sample	GRAB			0.0 No stains or odors	SW-7 North Point
		Brown, fine-grained SILTY SAND, moist, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-7 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND with clay, no odors, dry.	1	Sample	GRAB			0.0 No stains or odors	SW-7 South Point
			2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-7 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Gray, fine-grained SILTY SAND with clay, no odors, dry.	1	Sample	GRAB			0.0 No stains or odors	
		Brown, fine-grained SILTY SAND, dry, some clay nodules, no odors.	2						SW-7 West Point
		Some silt layers.	3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-8 A** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 — Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gray cement surface.	0						
		White CLAY, blocky.	1	Sample	GRAB			0.0 No stains or odors	
		Brown, fine-grained SILTY SAND mixed with white clay.	2						SW-8 A
			3						
		Brown, fine-grained SILTY SAND mixed with white clay and some clinker, moist, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-8 B** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gray cement at surface, very hard.	0						
		Brown, fine-grained SILTY SAND, moist, few pebbles, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-8 B
		Brown, fine-grained SILTY SAND mixed with white clay, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6–20						

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Log of Boring **SW-8 C** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gray cement surface, very hard.	0						
		Black CLINKER, very hard.	1	Sample	GRAB			0.0 No stains or odors	
		White CLAY, moist, bedded, no odors.	2						
		Brown, fine-grained SILTY SAND, moist, no odors, some white clay nodules.	3						SW-8 C
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-8 D** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in		Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gray cement surface, hard.	0						
		Refusal due to concrete and hard layers.	1						
			2						SW-8 D
			3						
			4						
			5						
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-8 E** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gray cement surface.	0						
		Brown, fine-grained SILTY SAND, moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-8 E
		Moist, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6–20						

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Log of Boring **SW-9 A** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		Brown, fine-grained SILTY SAND, moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-9 A
			2						
			3						
		Dark brown, fine-grained SILTY SAND, moist, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-9 B** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		Brown, fine-grained SILTY SAND, moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-9 B
		Brown, fine-grained SILTY SAND, moist, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6–20						

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Log of Boring **SW-9 C** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		White CEMENT.							
		Brown, fine-grained SILTY SAND, moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-9 C
			2						
			3						
		Brown, fine-grained SILTY SAND, moist, no odors.	4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-9 D** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		Gray CEMENT with gravel, very hard with clinker waste debris.	1	Sample	GRAB			0.0 No stains or odors	SW-9 D
		Brown, fine-grained SILTY SAND, moist, no odors.	2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-9 E** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface. Gray, SILTY SAND with gravel and clinker.	0						
		Brown, fine-grained SILTY SAND, moist, some white cement.	1	Sample	GRAB			0.0 No stains or odors	SW-9 E
			2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-10 A** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		Pinkish CLAY with gravel, hard, dry.	1	Sample	GRAB			0.0 No stains or odors	
		Brown, fine-grained SILTY SAND, moist, no odors.	2						SW-10 A
			3						
			4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-10 B** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Very hard, CEMENT surface with gravel.	0						
		Brown, fine-grained SILTY SAND.	1	Sample	GRAB			0.0 No stains or odors	
		Pinkish CLAY, moist.	2						SW-10 B
		Brown, fine-grained SILTY SAND, no odor, moist chunks of cement.	3						
		TD 4 ft. bgs due to refusal.	4	Sample	GRAB			0.0 No stains or odors	
			5						
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-10 C** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		CEMENT surface.	0						
			1	Sample	GRAB			0.0 No stains or odors	
		Pinkish CLAY, hard.	2						SW-10 C
			3						
		Dark gray CLAY, moist, minor bedding, no odors.	4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-10 D** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		CEMENT surface.	0						
		Brown, pinkish, fine-grained SILTY SAND, no odors, chunks of cement.	1	Sample	GRAB			0.0 No stains or odors	SW-10 D
		White CLAY with silty sand.	2						
			3						
		White CLAY, moist, bedded.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-10 E** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		CEMENT surface.	0						
		White CLAY, blocky, moist, plastic.	1–4						SW-10 E
		Some small nodules of black clinker.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6–20						

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Log of Boring **SW-11 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 — Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-11 Center Point
			2						
			3						
		Pebbles, moist, no odors.	4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-11 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Light gray near surface.							
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	
		Tree limbs.	2						SW-11 East Point
			3						
		Light brown, moist.	4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-11 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Gray material with sandy GRAVEL near surface.							
		Brown fine-grained SILTY SAND, slightly moist.	1	Sample	GRAB			0.0 No stains or odors	SW-11 North Point
			2						
			3						
		Moist, few pebbles, no odor.	4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-11 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, dry, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-11 South Point
		White chalky material.	2–3						
		Brown, fine-grained SAND, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6–20						

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Log of Boring **SW-11 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, dry, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-11 West Point
			2						
			3						
			4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-12 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, silty clay to SILTY SAND, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-11 Center Point
		Abandoned 3 in. PVC pipe.	2						
		Brown, fine-grained SILTY SAND with gravels, slightly moist, no odors.	3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-12 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained, SILTY SAND, some pebbles, dry, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-11 North Point
			2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-12 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, SILTY CLAY, hard, dry, no odors, fragments of CKD dispersed throughout.	1	Sample	GRAB			0.0 No stains or odors	SW-11 South Point
			2						
			3						
		Brown, fine-grained SILTY SAND with clay, moist, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-12 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, SILTY CLAY to fine-grained silty sand, dry, no odors, some pieces of CKD throughout.	1	Sample	GRAB			0.0 No stains or odors	SW-11 West Point
		SILTY CLAY to fine silty sand, no odors, CKD dispersed throughout.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	

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Log of Boring **SW-13 A** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 — Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Soil surface.	0						
		Fine-grained SILTY SAND.							
		Brown, fine-grained SILTY SAND, few gravel, no odors.	1	Sample	GRAB			0.0 No stains or odors	
		Dark brown, fine-grained SILTY SAND, few CKD nodules, moist, no odors.	2						SW-13 A
			3						
			4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-13 B** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		Brown and gray fine-grained SILTY SAND, few gravels.	1	Sample	GRAB			0.0 No stains or odors	
			2						SW-13 B
		White CLAY, bedded layers, moist, hard, no odors.	3						
			4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-13 C** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		White CLAY, hard.	1	Sample	GRAB			0.0 No stains or odors	
		Bedded layers.	2						SW-13 C
			3						
		Very moist, plastic, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-13 D** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		White CLAY, hard.	1	Sample	GRAB			0.0 No stains or odors	SW-13 D
		Moist, bedded, no odors.	2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-13 E** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		Thin layer of brown SAND.							
		White fine-grained SAND with silt and gravels.	1	Sample	GRAB			0.0 No stains or odors	
		White CLAY, moist, bedded, no odors.	2						SW-13 E
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-14 A** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gray CEMENT surface.	0						
		Brown, fine-grained SILTY SAND, moist.	1	Sample	GRAB			0.0 No stains or odors	SW-14 A
		Few gravel.	2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-14 B** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		White CEMENT surface.	0						
		Brown, fine-grained SILTY SAND, moist.	1	Sample	GRAB			0.0 No stains or odors	
		Some cemented layers.	2						SW-14 B
		Moist.	3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-14 C** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gray CEMENT surface, hard.	0						
		Brown, fine-grained SILTY SAND, moist.	1	Sample	GRAB			0.0 No stains or odors	SW-14 C
		Some hard clay, chunks, moist.	2–4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6–20						

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Log of Boring **SW-14 D** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Thin layer of white CEMENT.	0						
		Brown, fine-grained SILTY SAND, moist.	1	Sample	GRAB			0.0 No stains or odors	SW-14 D
			2						
			3						
		Moist.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-14 E** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/17/18 / Date Finished: 7/17/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL.	0						
		Brown, fine-grained SILTY SAND, very dense, cemented, blocky.	1	Sample	GRAB			0.0 No stains or odors	SW-14 E
		Brown, fine-grained SILTY SAND, very dense, cemented, blocky.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			20						

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Log of Boring **SW-15 A** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/18/18 — Date Finished: 7/18/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gray CEMENT surface.	0						
		White CLAY, blocky, dry, no odors.	1	Sample	GRAB			0.0 No stains or odors	
			2						SW-15 A
		Brown, fine-grained SILTY SAND, moist, no odors.	3						
			4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-15 B** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/18/18 / Date Finished: 7/18/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gray CEMENT surface.	0						
		Tan, fine to medium-grained SILTY SAND with clinker nodules, dry, no odors.	1	Sample	GRAB			0.0 No stains or odors	
		White CLAY with sand, blocky, moist, no odor.	2						SW-15 B
			3						
			4						
		Brown, fine-grained SILTY SAND.	5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-15 C** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/18/18 — Date Finished: 7/18/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gray CEMENT surface, hard. White CEMENT.	0						
		Brown, fine-grained SILTY SAND, moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	
		White CLAY / cement.	2						SW-15 C
			3						
		White CLAY / cement mixed with brown, fine-grained silty sand.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-15 D** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/18/18 / Date Finished: 7/18/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gray cement surface, hard.	0						
		Refusal.	1	Sample	GRAB			0.0 No stains or odors	SW-15 D
			2						
			3						
			4						
			5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-15 E** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/18/18 — Date Finished: 7/18/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Soil surface.	0						
		White CLAY / cement.							
		Brown, fine-grained SILTY SAND, moist, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-15 E
			2						
			3						
		Brown fine-grained SILTY SAND mixed with white clay, moist, no odors.	4						
			5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-16 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown CLAY with fine-grained sand, dry, no odors.	1	Sample	GRAB			0.0 No stains or odors	
		Interbedded CKD.	2						SW-16 Center Point
		Brown, fine-grained SAND with CKD nodules, moist, some blocky clay, no odors.	3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-16 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown CLAY with fine-grained sand, dry, no odor.	1	Sample	GRAB			0.0 No stains or odors	SW-16 East Point
		Interbedded CKD with fine-grained sand and clay.	2						
			3						
			4						
		Brown, fine-grained SILTY SAND with clay, moist, no odor.	5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-16 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, blocky CLAY with fine-grained sand, dry, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-16 North Point
			2						
			3						
			4						
		CKD, no odors.	5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-16 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 — Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Pinkish-brown, fine-grained SILTY SAND with clay, dry, no odors. Layers of CKD interbedded.	1	Sample	GRAB			0.0 No stains or odors	SW-16 South Point
		CKD interbedded.	2						
		Brown, fine-grained SAND with silt, some interbedded clay, no odors.	3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-16 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND with clay, dry, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-16 West Point
		CKD layer.	2						
		Interbedded CKD with brown, fine-grained SILTY SAND.	3						
			4						
		Brown, fine-grained SAND, no odors.	5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-17 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		ASPHALT.	0						
		Brown, fine-grained SILTY SAND with gravel, fill material.	1	Sample	GRAB			0.0 No stains or odors	SW-17 Center Point
			2						
		Dark brown, fine-grained SILTY SAND, no odors.	3						
		No odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-17 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		ASPHALT.	0						
		Brown, fine-grained SILTY SAND, fill material.	1	Sample	GRAB			0.0 No stains or odors	
		Dark brown, fine-grained SILTY SAND, no odors.	2						SW-17 East Point
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-17 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Abandoned due to refusal at 1 ft. bgs. Very dense material.	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20						SW-17 South Point was abandoned.

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Log of Boring **SW-17 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		ASPHALT.	0						
		Brown, fine-grained SILTY SAND with gravel, fill material.	1–3						SW-17 West Point Near soil gas probe.
		Concrete conduit, could be electrical.	3						
		TD 4 ft. bgs.	4	Sample	GRAB			0.0 No stains or odors	
			5–20						

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Log of Boring **SW-18** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 2 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in		Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Gravel. ASPHALT layer. Tried to excavate 4 times, hit refusal each time. Very dense material, some asphalt and concrete encountered.	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20						SW-18

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Log of Boring **SW-19 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND with clay.	1	Sample	GRAB			0.0 No stains or odors	SW-1 Center Point
		White and gray CEMENT debris, very hard, some gray clinker material with gray cement, no odor.	2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-19 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown CLAY, dry, hard.							
		Red CLAY debris with white and gray cement, waste debris.	1	Sample	GRAB			0.0 No stains or odors	
		Few cobbles.	2						SW-1 East Point
			3						
		Brown SILTY CLAY / sand interbedded, some red clay, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-19 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND with clay, blocky, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-1 North Point
		Red CLAY with silt, moist, no odor.	2						
			3						
		Brown SILTY CLAY / silty sand, moist, no odor.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-19 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 — Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, few pebbles, no odors.	1	Sample	GRAB			0.0 No stains or odors	
		Pinkish brown, SILTY CLAY, hard, blocky.	2						SW-1 South Point
			3						
		White and gray cemented waste material, some gray clinker embedded in CEMENT.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-19 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/16/18 / Date Finished: 7/16/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		White and gray cemented waste material, very hard gray clinker nodules in gray cement. Layer of CKD.	1	Sample	GRAB			0.0 No stains or odors	SW-1 West Point
			2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-20 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL.	0						
		Brown, fine-grained SILTY SAND, moist, slightly moist, no odors. Few pebbles.	1	Sample	GRAB			0.0 No stains or odors	SW-20 Center Point
		Fine SAND with gravel and silt, no odors, some gravel, granite fragments.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6–20						

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Log of Boring **SW-20 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL.	0						
		Brown, fine-grained SILTY SAND, no odors.	1	Sample	GRAB			0.0 No stains or odors	SW-20 East Point
			2						
			3						
		Brown, fine-grained SAND with silt, few gravels and cobbles, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-20 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL, cobbles/gravels with sand.	0						
		Brown fine-grained SILTY SAND, moist, few gravel.	1	Sample	GRAB			0.0 No stains or odors	SW-20 North Point
			2						
			3						
		Brown, fine-grained SAND with silt, no odors, few gravel.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-20 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 — Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL. Gray-brown gravel and sand.	0						
		Brown, fine-grained SILTY SAND, no odors, few gravel.	1	Sample	GRAB			0.0 No stains or odors	SW-20 South Point
			2						
			3						
		Gray-brown, fine-grained SAND with silt, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **SW-20 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/13/18 / Date Finished: 7/13/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL.	0						
		Brown, fine-grained SILTY SAND, slightly moist.	1	Sample	GRAB			0.0 No stains or odors	SW-20 West Point
			2						
			3						
		Brown, fine-grained SAND with silt, few cobbles, moist, no odors.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **VL-LT-1** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/23/18 / Date Finished: 7/23/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 20 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Eros A. Bilyeu
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Yellowish brown, CLAYEY SAND, dry, subangular sand, low to medium plasticity, low to medium dry strength, gravel.	0	Sample	GRAB			0.0 No stains or odors	- Collected VL-LT-1-1 at 14:00.
		Yellowish brown, SANDY LEAN CLAY, dry, low to medium plasticity, low to medium dry strength, fine subangular sand.	4	Sample	GRAB			0.0 No stains or odors	- Collected VL-LT-1-5 at 14:02.
			9	Sample	GRAB			0.0 No stains or odors	- Collected VL-LT-1-10 at 14:05.
		Yellowish brown, Poorly graded SAND with CLAY, dry, fine to medium subangular sand, low to medium plasticity.	14					0.0 No stains or odors	
		TD 20 ft. bgs.	19					0.0 No stains or odors	
			20						

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Log of Boring **VL-LT-2 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Dark brown, fine-grained SILTY SAND, moist, no odor.	1	Sample	GRAB			0.0 No stains or odors	VL-LT-2 Center Point
			2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **VL-LT-2 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	VL-LT-2 East Point
			2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **VL-LT-2 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, some cementation, some gravel, no odors, slightly moist.	1	Sample	GRAB			0.0 No stains or odors	VL-LT-2 North Point
			2						
			3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **VL-LT-2 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Dark brown, fine-grained SILTY SAND, cobbles.	1	Sample	GRAB			0.0 No stains or odors	VL-LT-2 South Point
			2						
			3						
		Medium-grained SAND with cobbles.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **VL-LT-2 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	VL-LT-2 West Point
			2						
			3						
		Medium-grained SAND.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **VL-LT-3 Center Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odor.	1	Sample	GRAB			0.0 No stains or odors	VL-LT-3 Center Point
			2						
			3						
			4						
		Moist.	5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **VL-LT-3 East Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, dense, compacted, clumps, no odors.	1	Sample	GRAB			0.0 No stains or odors	VL-LT-3 East Point
		Light brown, compacted, clumps, no odor.	5	Sample	GRAB			0.0 No stains or odors	
		TD 5 ft. bgs.	20						

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Log of Boring **VL-LT-3 North Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 — Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft — Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - — Casing Depth (ft): -	Water Level (ft.): First ▽ - / Completion ▼ - / 24 HR. ▼ -
Casing Hammer: - — Weight (lbs): - — Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - — Weight (lbs): - — Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist.	1	Sample	GRAB			0.0 No stains or odors	VL-LT-3 North Point
		Light reddish brown.	2						
		Brown, moist.	3						
			4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **VL-LT-3 South Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odor.	1	Sample	GRAB			0.0 No stains or odors	VL-LT-3 South Point
		Moist.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			20						

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Log of Boring **VL-LT-3 West Point** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/12/18 / Date Finished: 7/12/18
Drilling Equipment: CASE 430 Backhoe	Completion Depth: 5 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		Vegetation.	0						
		Brown, fine-grained SILTY SAND, slightly moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	VL-LT-3 West Point
		Compacted, clumps, moist.	4						
		TD 5 ft. bgs.	5	Sample	GRAB			0.0 No stains or odors	
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						

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Log of Boring **WCP-LT-1** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/18/18 / Date Finished: 7/18/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 18 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		ASPHALT.	0						
		Brown, fine-grained SILTY SAND, dry, no odors, some gravel.	1	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-1-1
		White CEMENT, very hard.	2						
		Brown, fine-grained SILTY SAND.	3						
		Gray CLAY, moist, hard.	4						
		Brown, fine-grained SILTY SAND with pebbles/gravels, moist, no odors.	5	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-1-5
			6						
			7						
			8						
		Brown, fine-grained SAND with silt, some pebbles, few cobbles, no odors.	9						
			10	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-1-10
			11						
			12						
			13						
		Brown, fine-grained SAND with silt, cobbles, moist, no odors.	14						
			15	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-1-15
			16						
			17						
			18						
		TD 18 ft. bgs. Trench collapsed.	19						
			20						

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Log of Boring **WCP-LT-2** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/18/18 / Date Finished: 7/18/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 17 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Number	Sample Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		GRAVEL surface.	0						
		Brown, fine-grained SILTY SAND with gravel [FILL], no odors.	1	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-2-1
			2						
			3						
		Gray CLAY, hard.	4						
		Brown, fine-grained SILTY SAND with clinker, moist, no odor.	5	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-2-5
			6						
		Black clinker.	7						
			8						
			9						
			10	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-2-10
		Brown, fine-grained SILTY SAND, moist.	11						
			12						
			13						
		Gray, very fine-grained SILTY SAND, moist, no odors.	14						
			15	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-2-15
		Dark gray CLAY.	16						
		Brown, very fine-grained SAND.	17						
		TD 17 ft. bgs. Trench Collapsed.	18						
			19						
			20						

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Log of Boring **WCP-LT-3** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/18/18 / Date Finished: 7/18/18
Drilling Equipment: CASE CX-290 Excavator	Completion Depth: 17 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		ASPHALT surface with 4 inch gravel base	0						
		Brown, fine-grained SILTY SAND, moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-3-1
			2						
			3						
			4						
		Brown, fine-grained SILTY SAND, moist, no odors.	5	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-3-5
			6						
			7						
		Light brown, fine-grained SAND with silt, few pebbles, moist, no odors.	8						
			9						
			10	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-3-10
			11						
			12						
		Gray brown, fine-grained SAND, few pebbles and cobbles.	13						
		Gray brown, fine-grained SAND, no odors.	14						
			15	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-3-15
			16						
		TD 17 ft. bgs. Trench Collapsed.	17						
			18						
			19						
			20						

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Log of Boring **WCP-LT-4** Sheet 1 of 1

Project: Agua Mansa Commerce Park	Project No.: 721013501
Location: Jurupa Valley, California	Elevation and Datum:
Drilling Company: AIS	Date Started: 7/18/18 / Date Finished: 7/18/18
Drilling Equipment: Excavator CX290	Completion Depth: 20 ft / Rock Depth: -
Size and Type of Bit: -	Number of Samples: Disturbed - / Undisturbed - / Core -
Casing Diameter (in): - / Casing Depth (ft): -	Water Level (ft.): First - / Completion - / 24 HR. -
Casing Hammer: - / Weight (lbs): - / Drop (in): -	Drilling Foreman: -
Sampler: -	Inspecting Engineer: Brad McCardell
Sampler Hammer: - / Weight (lbs): - / Drop (in): -	

Material Symbol	Elev. (ft)	Sample Description	Depth Scale	Sample Data: Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		White CEMENT surface.	0						
		Brown, fine-grained SILTY SAND, moist, no odors.	1	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-4-1
			2						
			3						
			4						
			5						- Collected Sample WCP-LT-4-5
			6						
			7						
		Light brown-gray, fine-grained SILTY SAND, moist, no odors.	8						
			9						
			10	Sample	GRAB			0.0 No stains or odors	- Collected Sample WCP-LT-4-10
			11						
			12						
			13						
			14						
		Brown, fine-grained SAND with silt, some pebbles, no odors.	15	Sample	GRAB			0.0 No stains or odors	
			16						
			17						
			18						
			19						
		TD 20 ft. bgs.	20						

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APPENDIX C
Correspondence

Brad Mccardell

From: Brad Mccardell
Sent: Monday, July 16, 2018 7:24 PM
To: Zhai, Xihong@DTSC
Cc: 'Guerre, Christopher@DTSC'; Neil Shukla
Subject: Agua Mansa, Implementation of SAWP

Hello Scarlett,

I understand from Chris that he spoke to you after our conversation today regarding soil gas probe WCP-SG-3 and soil boring WCP-SB-1. Soil gas probe WCP-SG-3 was an add on by CY last week during our meeting on Monday. Both of these locations are adjacent to each other near the former 210,000 No. 6 Fuel AST by the White Cement Plant. We would like to analyze the soil samples collected from the 5' and 15' location from WCP-SG-3 in lieu of drilling and sampling soil boring WCP-SB-1. We would analyze the soil samples from WCP-SG-3 for the same constituents proposed in soil boring WCP-SB-1 that are currently at the laboratory on hold. According to Chris, he indicated you are in agreement with this approach and he requested I memorialize this understanding in an email. Please confirm our understanding of this request.

Regarding the Raw Material Storage Bays on the northeast portion of the property. As communicated in my email on Friday last week and discussed with Chris this morning onsite, we had tremendous difficulties completing AQMD test pit SW-15 (clinker storage side) and got refusal at about 2.5 feet below ground surface. This area may be challenging to excavate the test pits and may need to be deferred to the demolition phase of the project. We will try again with a smaller excavation bucket with different teeth on the west side to see if we can achieve the depths needed in the Raw Material Storage Area. My concern is spending a tremendous amount of time in this area trying to complete the test pits and not being able to complete the other test pits in the SAWP. If we get refusal on any of test pits (i.e., including the step outs), I'll move onto the next one and so on. If I believe this area will be too difficult to complete with this equipment, I would like to discuss with you and Chris about deferring the Raw Material Storage Area to the demolition phase.

I understand from Chris that you will be onsite this Wednesday to tour the Motor Control Room near the Gray Cement Plant area. I look forward to discussing this with you. Thank you,

Sincerely

Brad A. McCardell, PG
Senior Project Geologist
Direct: 213.314.8115
Mobile: 909.771.8217
File Sharing Link

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Phone: 213.314.8100
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Los Angeles, CA 90071
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Langan's goal is to be SAFE (Stay Accident Free Everyday)

Department of Toxic Substances Control

Barbara A. Lee, Director
5796 Corporate Avenue
Cypress, California 90630

Matthew Rodriquez
Secretary for
Environmental Protection

Edmund G. Brown Jr.
Governor

July 19, 2018

Mr. Steve Ganch
Vice President of Development
Crestmore Redevelopment, LLC, a Colorado LLC
1805 Shea Center Drive, Suite 250
Highland Ranch, Colorado 80129

CONDITIONAL APPROVAL OF SITE ASSESSMENT WORKPLAN – AGUA MANSA COMMERCE PARK, JURUPA VALLEY, CALIFORNIA (SITE CODE: 401799)

Dear Mr. Ganch:

The Department of Toxic Substances Control (DTSC) reviewed the Revised Site Assessment Workplan (SAWP) prepared by Langan Engineering and Environmental Services, Inc. (Langan), on behalf of the Crestmore Redevelopment LLC, a Colorado LLC (Proponent), dated and received electronically on July 10, 2018. The SAWP was revised based on discussions during several meetings on June 21, 2018 and July 9, 2018, and in response to DTSC comments on the draft version forwarded in a letter dated June 28, 2018. The SAWP includes site background information, summarizes previous investigation results, and proposed sampling and analysis activities to fill the data gap at the Riverside Cement Plant site (Site).

According to the SAWP, the approximately 206-acre site is located at 1500 Rubidoux Boulevard in Jurupa Valley, California. The Site is bordered by Rubidoux Boulevard on the west, El Rivino Road on the north, Hall Avenue on the east, and the Crestmore Lake on the south. The Site is surrounded by residential properties on the northwest and northeast corners, and commercial properties on the other sides. The Site was used for cement manufacturing from the early 1900s to 2015. Surface mining terminated in 1927 and underground mining ceased in the 1980s with subsequent flooding of the mine workings circa 1986. The kiln lines shut down in the mid 1980's and 2008. The remaining cement related manufacturing operations (e.g. clinker and cement grinding) ended in 2015.

The Proponent is proposing to redevelop the Site into several warehouse distribution structures. Redevelopment includes balanced cut and fill grading operations. The Proponent entered into a California Land Reuse and Revitalization Agreement (CLRRA) with DTSC on January 16, 2018. A scoping meeting and a strategy meeting were held

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among representatives from the Proponent, Langan, and DTSC on January 12, 2018, and February 23, 2018 respectively. DTSC conducted a Site tour on January 25, 2018. A Preliminary Environmental Assessment (PEA) Report was prepared in December 2017. The PEA identified 12 Areas of Interest (AOIs) based on previous cement related manufacturing and operation processes. These AOIs were investigated by trenching, sampling, and laboratory analyses conducted between April 2016 and February 2017 without DTSC oversight. Soil samples were analyzed for metals, total petroleum hydrocarbons (TPHs), polychlorinated biphenyls (PCBs) and volatile and semi-volatile organic compounds (VOCs and SVOCs) in soil, and groundwater and surface water samples were analyzed for metals and/or VOCs. Preliminary risk characterization was conducted by comparing the analytical results with screening levels (SLs). Sporadic exceedance was identified with metal and TPH concentrations above SLs for commercial/industrial use scenario and construction worker scenario. Based on its review of the PEA, DTSC identified data gaps, and determined that a comprehensive Site assessment is needed to determine the nature and extent of contamination. The SAWP proposed sampling and analysis activities to fill the data gaps.

DTSC has identified discrepancies in the revised SAWP, which were clarified during DTSC Site visits from July 11 through July 18 of 2018. The comments below summarize the discrepancies and resolutions:

1. Wet Weather Quarry (WWQ) area
    a. A third soil boring location SMC-SB-3 is added in the WWQ area based on field evaluation of Site conditions by DTSC geologist and Lagan personnel.
    b. The drilling depth at the three borings in WWQ area, SMC-SB-1 through SMC-SB-3, will be to the top of native layer/bedrock, likely 100 feet (ft), instead of 20 ft as shown in Table 27.
    c. Soil samples will be collected from four depths distributed across the total drilling depth at each location, and analyze for TPH, SVOCs, PAHs, and PCBs, and approximately half of these samples will also be analyzed for dioxins.
    d. Samples for hexavalent chromium (Cr^{6+}) and total metals will be collected at 1, 5, and 10 ft below ground surface (bgs) as indicated in Table 27.
2. White Cement Plant (WCP) area
    e. A third soil gas location WCP-SG-3 is added near the proposed location of WCP-SB-1 in the White Cement Plant area, to evaluate the potential impact from the former 210,000-gallon above-ground storage tank, as shown on Figure 3.
    f. Soil samples from 5 ft and 15 ft bgs will be analyzed for TPH and VOCs, and soil boring at WCP-SB-1 will no longer be performed.

3. Former 6,000,000-gallon tank area
    g. Soil boring location MAP-SB-3 is relocated to near the former sampling location VB-1 where high TPH was identified.
    h. PAH sampling depth at boring locations MAP-SB-2 and MAP-SB-3 will be 10, 30, and 50 ft bgs, to be consistent with other analytes at these two locations.
4. Material Storage Area (MSA): TPH sample depths at trench locations MSA-LT-2, MSA-LT-4, and MSA-LT-5 will be 5, 10, and 15 ft bgs, instead of those listed in Table 27.
5. Trench location GCP-LT-2 in the Grey Cement Plant area is move to the south of the grey kiln line.
6. Trench location SMC-LT-1 is moved to the black iron ore spot.
7. Langan clarified that the various depths listed in the column of "No. Samples" in Table 27 are depth of soil logging.
8. Langan indicated that soil samples at the bottom of each trench (i.e. 20 ft) will be archived for possible analytical needs.

DTSC hereby approves the SAWP provided these comments are incorporated during field work/future report. Further revision to the SAWP is no longer needed.

If you have any questions regarding this project, please contact Scarlett Xihong Zhai, Project Manager, at (714) 484-5316 or by e-mail at Xihong.Zhai@dtsc.ca.gov, or contact me at (714) 484-5368 or by e-mail at Shahir.Haddad@dtsc.ca.gov.

Sincerely,

Shahir Haddad, P.E.
Supervising Engineer
Brownfields Restoration and School Evaluation Branch
Site Mitigation and Restoration Program

ka/sz/sh

Enclosure

cc: See next page.

cc: (via e-mail)

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Christopher.Guerre@dtsc.ca.gov

Brownfields Restoration and School Evaluation Team Reading File – Cypress

APPENDIX D
Laboratory Analytical Reports – Soil Gas

JONES ENVIRONMENTAL, INC.

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805-399-0060

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SANTA FE SPRINGS, CA 90670
WWW.JONESENV.COM

JONES ENVIRONMENTAL

LABORATORY RESULTS

Client:	Langan	**Report date:**	7/16/2018
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614-4721	**JEL Ref. No.:**	E-0890
Attn:	Brad McCardell	**Date Sampled:**	7/16/2018
		Date Received:	7/16/2018
Project Name:	Aguamansa Commerce Park	**Date Analyzed:**	7/16/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

ANALYSES REQUESTED

1. EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

A tracer gas mixture of n-pentane, n-hexane, and n-heptane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-pentane, n-hexane, or n-heptane was found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 2000 cc/min. Per the 2015 DTSC/RWQCB active soil gas investigations advisory (Section 4.3), this rate was selected over the standard 200 cc/min due to the large purge volume attributable to the large boring diameter. A default of 3 purge volumes was used as recommended by the 2015 DTSC/RWQCB advisory.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, a Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of sampling.

Approval: 

Angela Haar, Ph. D.
Mobile Lab Manager

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan	**Report date:**	7/16/2018
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614-4721	**Jones Ref. No.:**	E-0890
Attn:	Brad McCardell	**Date Sampled:**	7/16/2018
		Date Received:	7/16/2018
Project:	Aguamansa Commerce Park	**Date Analyzed:**	7/16/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**MAP-SG-3-5'**	**MAP-SG-3-15'**	**MAP-SG-2-5'**	**MAP-SG-2-15'**	**MAP-SG-1-5'**		
Jones ID:	**E-0890-01**	**E-0890-02**	**E-0890-03**	**E-0890-04**	**E-0890-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	MAP-SG-3-5'	MAP-SG-3-15'	MAP-SG-2-5'	MAP-SG-2-15'	MAP-SG-1-5'		
Jones ID:	**E-0890-01**	**E-0890-02**	**E-0890-03**	**E-0890-04**	**E-0890-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	40	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	40	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	8	µg/m3
Toluene	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	8	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane[1]	101%	110%	101%	113%	100%	60 - 140	
Toluene-d_8	98%	98%	97%	98%	97%	60 - 140	
4-Bromofluorobenzene	97%	99%	95%	100%	96%	60 - 140	
	E2-071618-01	E1-071618-01	E2-071618-01	E1-071618-01	E2-071618-01		

ND= Not Detected

[1]1,2-Dichloroethane-d4 reported for batch E1-071618-01

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan	**Report date:**	7/16/2018
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614-4721	**Jones Ref. No.:**	E-0890
Attn:	Brad McCardell	**Date Sampled:**	7/16/2018
		Date Received:	7/16/2018
Project:	Aguamansa Commerce Park	**Date Analyzed:**	7/16/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**MAP-SG-1-5' REP**	**MAP-SG-1-15'**	**MAP-SG-1-15' REP**	**MAP-SG-7-5'**	**MAP-SG-7-15'**		
Jones ID:	**E-0890-06**	**E-0890-07**	**E-0890-08**	**E-0890-09**	**E-0890-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	MAP-SG-1-5' REP	MAP-SG-1-15'	MAP-SG-1-15' REP	MAP-SG-7-5'	MAP-SG-7-15'		
Jones ID:	**E-0890-06**	**E-0890-07**	**E-0890-08**	**E-0890-09**	**E-0890-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	40	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	40	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	8	µg/m3
Toluene	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	8	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane[1]	99%	111%	111%	100%	114%	60 - 140	
Toluene-d_8	96%	99%	98%	121%	96%	60 - 140	
4-Bromofluorobenzene	96%	98%	100%	113%	98%	60 - 140	
	E2-071618-01	E1-071618-01	E1-071618-01	E2-071618-01	E1-071618-01		

ND= Not Detected

[1]1,2-Dichloroethane-d4 reported for batch E1-071618-01

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan	**Report date:**	7/16/2018
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614-4721	**Jones Ref. No.:**	E-0890
Attn:	Brad McCardell	**Date Sampled:**	7/16/2018
		Date Received:	7/16/2018
Project:	Aguamansa Commerce Park	**Date Analyzed:**	7/16/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**MAP-SG-4-5'**	**MAP-SG-4-15'**	**MAP-SG-5-5'**	**MAP-SG-5-15'**	**MAP-SG-6-5'**		
Jones ID:	**E-0890-11**	**E-0890-12**	**E-0890-13**	**E-0890-14**	**E-0890-15**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	MAP-SG-4-5'	MAP-SG-4-15'	MAP-SG-5-5'	MAP-SG-5-15'	MAP-SG-6-5'		
Jones ID:	**E-0890-11**	**E-0890-12**	**E-0890-13**	**E-0890-14**	**E-0890-15**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	40	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	40	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	8	µg/m3
Toluene	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	8	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane[1]	102%	115%	101%	125%	104%	60 - 140	
Toluene-d_8	98%	97%	97%	99%	97%	60 - 140	
4-Bromofluorobenzene	99%	95%	97%	103%	97%	60 - 140	
	E2-071618-01	E1-071618-01	E2-071618-01	E1-071618-01	E2-071618-01		

ND= Not Detected

[1]1,2-Dichloroethane-d4 reported for batch E1-071618-01

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan	**Report date:**	7/16/2018
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614-4721	**Jones Ref. No.:**	E-0890
Attn:	Brad McCardell	**Date Sampled:**	7/16/2018
		Date Received:	7/16/2018
Project:	Aguamansa Commerce Park	**Date Analyzed:**	7/16/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**MAP-SG-6-15'**	**WCP-SG-1-5'**	**WCP-SG-1-15'**	**WCP-SG-2-5'**	**WCP-SG-2-15'**		
Jones ID:	**E-0890-16**	**E-0890-17**	**E-0890-18**	**E-0890-19**	**E-0890-20**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	8	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	8	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	MAP-SG-6-15'	WCP-SG-1-5'	WCP-SG-1-15'	WCP-SG-2-5'	WCP-SG-2-15'		
Jones ID:	**E-0890-16**	**E-0890-17**	**E-0890-18**	**E-0890-19**	**E-0890-20**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	40	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	40	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	8	µg/m3
Toluene	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	8	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane[1]	122%	104%	122%	103%	122%	60 - 140	
Toluene-d_8	101%	97%	100%	98%	101%	60 - 140	
4-Bromofluorobenzene	103%	100%	99%	96%	104%	60 - 140	
	E1-071618-01	E2-071618-01	E1-071618-01	E2-071618-01	E1-071618-01		

ND= Not Detected

[1]1,2-Dichloroethane-d4 reported for batch E1-071618-01

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan	**Report date:**	7/16/2018
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614-4721	**Jones Ref. No.:**	E-0890
Attn:	Brad McCardell	**Date Sampled:**	7/16/2018
		Date Received:	7/16/2018
Project:	Aguamansa Commerce Park	**Date Analyzed:**	7/16/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**WCP-SG-3-5'**	**WCP-SG-3-15'**	**GCP-SG-1-5'**	**GCP-SG-1-15'**		
Jones ID:	**E-0890-21**	**E-0890-22**	**E-0890-23**	**E-0890-24**	**Practical Quantitation Limit**	**Units**
Analytes:						
Benzene	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	8	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	8	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	8	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	8	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	8	µg/m3
Dibromochloromethane	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	8	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	8	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	8	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	8	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	8	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	WCP-SG-3-5'	WCP-SG-3-15'	GCP-SG-1-5'	GCP-SG-1-15'		
Jones ID:	**E-0890-21**	**E-0890-22**	**E-0890-23**	**E-0890-24**	**Practical Quantitation Limit**	**Units**
Analytes:						
cis-1,3-Dichloropropene	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	40	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	40	µg/m3
Isopropylbenzene	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	8	µg/m3
Tetrachloroethene	ND	ND	ND	ND	8	µg/m3
Toluene	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	40	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	8	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	8	µg/m3
o-Xylene	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	2000	µg/m3
TIC:						
n-Pentane	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1		
Surrogate Recoveries:					**QC Limits**	
Dibromofluoromethane[1]	108%	123%	103%	123%	60 - 140	
Toluene-d_8	111%	103%	99%	97%	60 - 140	
4-Bromofluorobenzene	103%	97%	101%	101%	60 - 140	
	E2-071618-01	E1-071618-01	E2-071618-01	E1-071618-01		

ND= Not Detected

[1]1,2-Dichloroethane-d4 reported for batch E1-071618-01

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Langan	**Report date:**	7/16/2018
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614-4721	**Jones Ref. No.:**	E-0890
Attn:	Brad McCardell	**Date Sampled:**	7/16/2018
		Date Received:	7/16/2018
Project:	Aguamansa Commerce Park	**Date Analyzed:**	7/16/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	METHOD BLANK	SAMPLING BLANK	METHOD BLANK	SAMPLING BLANK		
Jones ID:	071618-E1MB1	071618-E1SB1	071618-E2MB1	071618-E2SB1	**Practical Quantitation Limit**	**Units**
Analytes:						
Benzene	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	8	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	8	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	8	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	8	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	8	µg/m3
Dibromochloromethane	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	8	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	8	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	8	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	8	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	8	µg/m3

JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	METHOD BLANK	SAMPLING BLANK	METHOD BLANK	SAMPLING BLANK		
Jones ID:	**071618-E1MB1**	**071618-E1SB1**	**071618-E2MB1**	**071618-E2SB1**	**Practical Quantitation Limit**	**Units**
Analytes:						
cis-1,3-Dichloropropene	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	40	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	40	µg/m3
Isopropylbenzene	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	8	µg/m3
Tetrachloroethene	ND	ND	ND	ND	8	µg/m3
Toluene	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	40	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	8	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	8	µg/m3
o-Xylene	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	2000	µg/m3
TIC:						
n-Pentane	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1		
Surrogate Recoveries:					**QC Limits**	
Dibromofluoromethane[1]	122%	110%	99%	101%	60 - 140	
Toluene-d_8	99%	99%	96%	98%	60 - 140	
4-Bromofluorobenzene	99%	101%	98%	97%	60 - 140	
	E1-071618-01	E1-071618-01	E2-071618-01	E2-071618-01		

ND= Not Detected

[1]1,2-Dichloroethane-d4 reported for batch E1-071618-01

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Langan	**Report date:**	7/16/2018
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614-4721	**Jones Ref. No.:**	E-0890
Attn:	Brad McCardell	**Date Sampled:**	7/16/2018
		Date Received:	7/16/2018
Project:	Aguamansa Commerce Park	**Date Analyzed:**	7/16/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Batch ID: E1-071618-01

Jones ID:	**071618-E1LCS1**	**071618-E1LCSD1**			**071618-E1CCV1**	
Parameter	LCS Recovery (%)	LCSD Recovery (%)	RPD	Acceptability Range (%)	CCV	Acceptability Range (%)
Vinyl chloride	8%[2]	10%[2]	15%	60 -140	103%	80 - 120
1,1-Dichloroethene	66%	65%	1.7%	60 -140	84%	80 - 120
Cis-1,2-Dichloroethene	113%	106%	6.5%	70 - 130	92%	80 - 120
1,1,1-Trichloroethane	128%	129%	1.0%	70 - 130	127%	80 - 120
Benzene	104%	101%	2.6%	70 - 130	95%	80 - 120
Trichloroethene	96%	103%	6.5%	70 - 130	91%	80 - 120
Toluene	103%	103%	0.0%	70 - 130	95%	80 - 120
Tetrachloroethene	96%	109%	12%	70 - 130	96%	80 - 120
Chlorobenzene	110%	107%	2.9%	70 - 130	93%	80 - 120
Ethylbenzene	96%	99%	2.4%	70 - 130	86%	80 - 120
1,2,4 Trimethylbenzene	96%	100%	3.4%	70 - 130	86%	80 - 120
Gasoline Range Organics (C4-C12)	100%	101%	0.7%	70 - 130		
Surrogate Recovery:						
1,2-Dichloroethane-d4	125%	122%		60 - 140	111%	60 - 140
Toluene-d_8	97%	134%		60 - 140	99%	60 - 140
4-Bromofluorobenzene	99%	90%		60 - 140	101%	60 - 140

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%
[2]The percent recovery was outside acceptance criteria. Results accepted based upon percent recovery results for the CCV and RSD results

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Langan	**Report date:**	7/16/2018
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614-4721	**Jones Ref. No.:**	E-0890
Attn:	Brad McCardell	**Date Sampled:**	7/16/2018
		Date Received:	7/16/2018
Project:	Aguamansa Commerce Park	**Date Analyzed:**	7/16/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Batch ID: E2-071618-01

Jones ID:	**071618-E2LCS1**	**071618-E2LCSD1**			**071618-E2CCV1**	
Parameter	LCS Recovery (%)	LCSD Recovery (%)	RPD	Acceptability Range (%)	CCV	Acceptability Range (%)
Vinyl chloride	37%[2]	37%[2]	0.1%	60 -140	80%	80 - 120
1,1-Dichloroethene	86%	90%	5.0%	60 -140	99%	80 - 120
Cis-1,2-Dichloroethene	111%	116%	5.0%	70 - 130	94%	80 - 120
1,1,1-Trichloroethane	99%	106%	6.7%	70 - 130	94%	80 - 120
Benzene	100%	106%	5.6%	70 - 130	94%	80 - 120
Trichloroethene	95%	100%	5.5%	70 - 130	91%	80 - 120
Toluene	99%	104%	5.6%	70 - 130	87%	80 - 120
Tetrachloroethene	93%	103%	10%	70 - 130	81%	80 - 120
Chlorobenzene	100%	104%	3.7%	70 - 130	88%	80 - 120
Ethylbenzene	99%	106%	6.8%	70 - 130	85%	80 - 120
1,2,4 Trimethylbenzene	95%	105%	9.6%	70 - 130	82%	80 - 120
Gasoline Range Organics (C4-C12)	98%	105%	6.9%	70-130		
Surrogate Recovery:						
Dibromofluoromethane	122%	113%		60 - 140	107%	60 - 140
Toluene-d_8	97%	134%		60 - 140	100%	60 - 140
4-Bromofluorobenzene	99%	90%		60 - 140	98%	60 - 140

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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Soil-Gas Chain-of-Custody Record

Client: Langan
Project Name: Aguamansa Commerce Park
Project Address: 1500 Rubidoux Blvd, Riverside, CA 92509
Email:
Phone:
Report To: Brad McCardell
Sampler: Kevin Horchler
Date: 7/16/2018
Client Project #:

Purge Number: ☐ 1P ☒ 3P ☐ 7P ☐ 10P
Shut-In Test: (Y) / N

Report Options: EDD ____ EDF* - 10% Surcharge ____ *Global ID ____

Turn Around Requested: ☐ Immediate Attention ☐ Rush 24 Hours ☐ Rush 48 Hours ☐ Rush 72 Hours ☐ Normal ☒ Mobile Lab

Tracer: ☒ n-pentane ☒ n-hexane ☒ n-heptane ☐ Helium ☐ 1,1-DFA ☐ ____

Reporting Limits Requested: ☑ Commercial ☐ Residential **Units:** mg/m³

LAB USE ONLY
Jones Project #: E-0890
Page 1 of 3
Sample Container: GLASS GAS TIGHT SYRINGE
If different than above, see Notes.

Analysis Requested

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	8260B	TPHg			Magnehelic Vacuum (In/H_2O)	Number of Containers	Notes & Special Instructions
MAP-SG-3-5'	3	19400	7/16/18	7:59	8:03	E-0890-01	2000	SKC 1	118008	SG	X	X			<2	1	
MAP-SG-3-15'	3	19500	7/16/18	7:59	8:03	E-0890-02	2000	SKC 2	100.11	SG	X	X			<2	1	
MAP-SG-2-5'	3	19400	7/16/18	8:21	8:24	E-0890-03	2000	SKC 1	118008	SG	X	X			<2	1	
MAP-SG-2-15'	3	19500	7/16/18	8:21	8:24	E-0890-04	2000	SKC 2	100.11	SG	X	X			<2	1	
MAP-SG-1-5'	3	19500	7/16/18	8:49	8:51	E-0890-05	2000	SKC 1	118008	SG	X	X			<2	1	
MAP-SG-1-5' REP	3	19400	7/16/18	9:00	9:08	E-0890-06	2000	SKC 2	100.11	SG	X	X			<2	1	
MAP-SG-1-15'	3	19400	7/16/18	8:49	8:51	E-0890-07	2000	SKC 1	118008	SG	X	X			<2	1	
MAP-SG-1-15' REP	3	19500	7/16/18	9:00	9:07	E-0890-08	2000	SKC 2	100.11	SG	X	X			<2	1	
MAP-SG-7-5'	3	19400	7/16/18	9:23	9:26	E-0890-09	2000	SKC 1	118008	SG	X	X			<2	1	
MAP-SG-7-15'	3	19500	7/16/18	9:24	9:26	E-0890-10	2000	SKC 2	100.11	SG	X	X			<2	1	

Relinquished By (Signature) Brad A. McCardell	Printed Name Brad A. McCardell	Received By (Signature)	Printed Name Kevin Horchler
Company Langan	Date 7/16/2018 Time 1305	Company Jones Environmental, Inc.	Date 7/16/2018 Time
Relinquished By (Signature)	Printed Name	Received By Laboratory (Signature)	Printed Name
Company	Date Time	Company G-2718	Date Time

10 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

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Santa Fe Springs, CA 90670
(714) 449-9937
Fax (714) 449-9685
www.jonesenv.com

Soil-Gas Chain-of-Custody Record

Client: Langan

Project Name: Aguamansa Commerce Park

Project Address: 1500 Rubidoux Blvd, Riverside, CA 92509

Email:

Phone:

Report To: Brad McCardell

Sampler: Kevin Horchler

Date: 7/16/2018

Client Project #:

Purge Number: □ 1P ☒ 3P □ 7P □ 10P

Shut-In Test: ☑ / N

Report Options: EDD ____ EDF* - 10% Surcharge____ *Global ID _____

Turn Around Requested:
- □ Immediate Attention
- □ Rush 24 Hours
- □ Rush 48 Hours
- □ Rush 72 Hours
- □ Normal
- ☑ Mobile Lab

Tracer:
- ☒ n-pentane
- ☑ n-hexane
- ☑ n-heptane
- □ Helium
- □ 1,1-DFA
- □ _____

Reporting Limits Requested: ☑ Commercial □ Residential

Units: ug/m3

LAB USE ONLY

Jones Project #: E-0890

Page 2 of 3

Sample Container: GLASS GAS TIGHT SYRINGE

If different than above, see Notes.

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	8260B	TPHg			Magnehelic Vacuum (In/H_2O)	Number of Containers	Notes & Special Instructions
MAP-SG-4-5'	3	19400	7/16/18	9:38	9:43	E-0890-11	2000	SKC 1	118008	SG	X	X			<2	1	
MAPSG-4-15'	3	19500	7/16/18	9:40	9:43	E-0890-12	2000	SKC 2	100.11	SG	X	X			<2	1	
MAP-SG-5-5'	3	19400	7/16/18	10:01	10:05	E-0890-13	2000	SKC 1	118008	SG	X	X			<2	1	
MAP-SG-5-15'	3	19500	7/16/18	10:02	10:05	E-0890-14	2000	SKC 2	100.11	SG	X	X			<2	1	
MAP-SG-6-5'	3	19400	7/16/18	10:25	10:27	E-0890-15	2000	SKC 1	118008	SG	X	X			<2	1	
MAP-SG-6-15'	3	19500	7/16/18	10:26	10:27	E-0890-16	2000	SKC 2	100.11	SG	X	X			<2	1	
WCP-SG-1-5'	3	19400	7/16/18	10:53	10:54	E-0890-17	2000	SKC 1	118008	SG	X	X			<2	1	
WCP-SG-1-15'	3	19500	7/16/18	10:53	10:54	E-0890-18	2000	SKC 2	100.11	SG	X	X			<2	1	
WCP-SG-2-5'	3	19400	7/16/18	11:13	11:19	E-0890-19	2000	SKC 1	118008	SG	X	X			<2	1	
WCP-SG-2-15'	3	19500	7/16/18	11:13	11:16	E-0890-20	2000	SKC 2	100.11	SG	X	X			<2	1	

Analysis Requested

Relinquished By (Signature)	Printed Name	Received By (Signature)	Printed Name		
Brad McCardell	Brad A. McCardell		Kevin Horchler	10	Total Number of Containers
Company	**Date / Time**	**Company**	**Date / Time**		
Langan	7/16/2018 1305	Jones Environmental, Inc.	7/16/2018		
Relinquished By (Signature)	**Printed Name**	**Received By Laboratory (Signature)**	**Printed Name**		
Company	**Date / Time**	**Company**	**Date / Time**		
		G-2719			

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Soil-Gas Chain-of-Custody Record

Client: Langan

Project Name: Aguamansa Commerce Park

Project Address: 1500 Rubidoux Blvd, Riverside, CA 92509

Email:

Phone:

Report To: Brad McCardell

Sampler: Kevin Horchler

Date: 7/16/2018

Client Project #:

Purge Number: □ 1P ☒ 3P □ 7P □ 10P

Shut-In Test: (Y) / N

Report Options: EDD ____ EDF* - 10% Surcharge____ *Global ID _____

Turn Around Requested:
- □ Immediate Attention
- □ Rush 24 Hours
- □ Rush 48 Hours
- □ Rush 72 Hours
- □ Normal
- ☒ Mobile Lab

Tracer:
- ☒ n-pentane
- ☒ n-hexane
- ☒ n-heptane
- □ Helium
- □ 1,1-DFA
- □ _____

Reporting Limits Requested: ☒ Commercial □ Residential **Units:** ug/m3

LAB USE ONLY

Jones Project #: E-0890

Page 3 of 3

Sample Container: GLASS GAS TIGHT SYRINGE

If different than above, see Notes.

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	8260B	TPHg			Magnehelic Vacuum (In/H_2O)	Number of Containers	Notes & Special Instructions
WCP-SG-3-5'	3	19400	7/16/18	11:20	11:22	E-0890-21	2000	SKC 1	118008	SG	X	X			<2	1	
WCP-SG-3-15'	3	19500	7/16/18	11:20	11:23	E-0890-22	2000	SKC 2	100.11	SG	X	X			<2	1	
GCP -SG-1-5'	3	19400	7/16/18	12:29	12:31	E-0890-23	2000	SKC 1	118008	SG	X	X			<2	1	
GCP-SG-1-15'	3	19500	7/16/18	12:29	12:31	E-0890-24	2000	SKC 2	100.11	SG	X	X			<2	1	

Relinquished By (Signature): Brad McCardell **Printed Name:** Brad McCardell

Company: Langan **Date:** 7/16/2018 **Time:** 1305

Received By (Signature): Kevin Horchler **Printed Name:** Kevin Horchler

Company: Jones Environmental, Inc. **Date:** 7/16/2018 **Time:**

4 Total Number of Containers

Relinquished By (Signature): **Printed Name:**

Company: **Date:** **Time:**

Received By Laboratory (Signature): **Printed Name:**

Company: G-2720 **Date:** **Time:**

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

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JONES ENVIRONMENTAL

LABORATORY RESULTS

Client:	Langan	**Report date:**	7/26/2018
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614	**JEL Ref. No.:**	E-0895
Attn:	Brad McCardell	**Date Sampled:**	7/26/2018
		Date Received:	7/26/2018
Project Name:	Aquamansa Commerce Park	**Date Analyzed:**	7/26/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

ANALYSES REQUESTED

1. EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

A tracer gas mixture of n-pentane, n-hexane, and n-heptane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No n-pentane, n-hexane, or n-heptane was found in any of the samples reported herein.

The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 200 cc/min and 500 cc/min, except when noted differently on the chain of custody record. A default of 3 purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, a Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of sampling.

Approval:

Angela Haar, Ph. D.
Mobile Lab Manager

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan 32 Executive Park, Ste 130 Irvine, CA 92614	**Report date:**	7/26/2018
		Jones Ref. No.:	E-0895
Attn:	Brad McCardell	**Date Sampled:**	7/26/2018
		Date Received:	7/26/2018
Project:	Aquamansa Commerce Park	**Date Analyzed:**	7/26/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	MAP-SG-2-5'	MAP-SG-2-15'	MAP-SG-3-5'	MAP-SG-3-15'	MAP-SG-1-5'		
Jones ID:	E-0895-01	E-0895-02	E-0895-03	E-0895-04	E-0895-05	Practical Quantitation Limit	Units
Analytes:							
Benzene	ND	ND	ND	ND	ND	20	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	20	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	20	µg/m3
Bromoform	ND	ND	ND	ND	ND	20	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	20	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Chloroform	ND	ND	ND	ND	ND	20	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	20	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	20	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	20	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	20	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**MAP-SG-2-5'**	**MAP-SG-2-15'**	**MAP-SG-3-5'**	**MAP-SG-3-15'**	**MAP-SG-1-5'**		
Jones ID:	**E-0895-01**	**E-0895-02**	**E-0895-03**	**E-0895-04**	**E-0895-05**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Freon 113	ND	ND	ND	ND	ND	100	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	100	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	20	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	20	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	20	µg/m3
Naphthalene	ND	ND	ND	ND	ND	100	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Styrene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	20	µg/m3
Toluene	ND	ND	ND	ND	ND	20	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	100	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	20	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	20	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	20	µg/m3
o-Xylene	ND	ND	ND	ND	ND	100	µg/m3
MTBE	ND	ND	ND	ND	ND	100	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	20	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	20	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	20	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	20	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane [I]	118%	100%	105%	103%	101%	60 - 140	
Toluene-d_8	101%	94%	98%	95%	98%	60 - 140	
4-Bromofluorobenzene	109%	95%	95%	95%	98%	60 - 140	
	E1-072618-01	E2-072618-01	E1-072618-01	E2-072618-01	E1-072618-01		

ND= Not Detected

[I] 1,2-Dichloroethane-d4 surrogate recovery reported for E1-072618-01

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan 32 Executive Park, Ste 130 Irvine, CA 92614	**Report date:**	7/26/2018
		Jones Ref. No.:	E-0895
Attn:	Brad McCardell	**Date Sampled:**	7/26/2018
		Date Received:	7/26/2018
Project:	Aquamansa Commerce Park	**Date Analyzed:**	7/26/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	MAP-SG-1-15'	MAP-SG-1-5' REP	MAP-SG-1-15' REP	MAP-SG-7-5'	MAP-SG-7-15'		
Jones ID:	E-0895-06	E-0895-07	E-0895-08	E-0895-09	E-0895-10	Practical Quantitation Limit	Units
Analytes:							
Benzene	ND	ND	ND	ND	ND	20	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	20	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	20	µg/m3
Bromoform	ND	ND	ND	ND	ND	20	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	20	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Chloroform	ND	ND	ND	ND	ND	20	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	20	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	20	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	20	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	20	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	MAP-SG-1-15'	MAP-SG-1-5' REP	MAP-SG-1-15' REP	MAP-SG-7-5'	MAP-SG-7-15'		
Jones ID:	**E-0895-06**	**E-0895-07**	**E-0895-08**	**E-0895-09**	**E-0895-10**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Freon 113	ND	ND	ND	ND	ND	100	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	100	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	20	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	20	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	20	µg/m3
Naphthalene	ND	ND	ND	ND	ND	100	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Styrene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	20	µg/m3
Toluene	ND	ND	ND	ND	ND	20	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	100	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	20	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	20	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	20	µg/m3
o-Xylene	ND	ND	ND	ND	ND	100	µg/m3
MTBE	ND	ND	ND	ND	ND	100	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	20	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	20	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	20	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	20	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane [I]	102%	102%	100%	105%	105%	60 - 140	
Toluene-d_8	97%	98%	96%	98%	96%	60 - 140	
4-Bromofluorobenzene	98%	102%	100%	102%	102%	60 - 140	
	E2-072618-01	E1-072618-01	E2-072618-01	E1-072618-01	E2-072618-01		

ND= Not Detected

[I] 1,2-Dichloroethane-d4 surrogate recovery reported for E1-072618-01

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan 32 Executive Park, Ste 130 Irvine, CA 92614	**Report date:**	7/26/2018
		Jones Ref. No.:	E-0895
Attn:	Brad McCardell	**Date Sampled:**	7/26/2018
		Date Received:	7/26/2018
Project:	Aquamansa Commerce Park	**Date Analyzed:**	7/26/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	MAP-SG-4-5'	MAP-SG-4-15'	MAP-SG-4-5' REP	MAP-SG-4-15' REP	MAP-SG-5-5'		
Jones ID:	E-0895-11	E-0895-12	E-0895-13	E-0895-14	E-0895-15	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	20	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	20	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	20	µg/m3
Bromoform	ND	ND	ND	ND	ND	20	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	20	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Chloroform	ND	ND	ND	ND	ND	20	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	20	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	20	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	20	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	20	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	MAP-SG-4-5'	MAP-SG-4-15'	MAP-SG-4-5' REP	MAP-SG-4-15' REP	MAP-SG-5-5'		
Jones ID:	**E-0895-11**	**E-0895-12**	**E-0895-13**	**E-0895-14**	**E-0895-15**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Freon 113	ND	ND	ND	ND	ND	100	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	100	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	20	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	20	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	20	µg/m3
Naphthalene	ND	ND	ND	ND	ND	100	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Styrene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	20	µg/m3
Toluene	ND	ND	ND	ND	ND	20	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	100	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	20	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	20	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	20	µg/m3
o-Xylene	ND	ND	ND	ND	ND	100	µg/m3
MTBE	ND	ND	ND	ND	ND	100	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	20	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	20	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	20	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	20	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane [I]	107%	104%	114%	100%	120%	60 - 140	
Toluene-d_8	99%	97%	100%	96%	98%	60 - 140	
4-Bromofluorobenzene	103%	97%	100%	98%	104%	60 - 140	
	E1-072618-01	E2-072618-01	E1-072618-01	E2-072618-01	E1-072618-01		

ND= Not Detected

[I] 1,2-Dichloroethane-d4 surrogate recovery reported for E1-072618-01

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan 32 Executive Park, Ste 130 Irvine, CA 92614	**Report date:**	7/26/2018
		Jones Ref. No.:	E-0895
Attn:	Bard McCardell	**Date Sampled:**	7/26/2018
		Date Received:	7/26/2018
Project:	Aquamansa Commerce Park	**Date Analyzed:**	7/26/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**MAP-SG-5-15'**	**WCP-SG-1-5'**	**WCP-SG-1-15'**	**MAP-SG-6-5'**	**MAP-SG-6-15'**		
Jones ID:	**E-0895-16**	**E-0895-17**	**E-0895-18**	**E-0895-19**	**E-0895-20**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	20	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	20	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	20	µg/m3
Bromoform	ND	ND	ND	ND	ND	20	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	20	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Chloroform	ND	ND	ND	ND	ND	20	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	20	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	20	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	20	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	20	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**MAP-SG-5-15'**	**WCP-SG-1-5'**	**WCP-SG-1-15'**	**MAP-SG-6-5'**	**MAP-SG-6-15'**		
Jones ID:	**E-0895-16**	**E-0895-17**	**E-0895-18**	**E-0895-19**	**E-0895-20**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Freon 113	ND	ND	ND	ND	ND	100	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	100	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	20	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	20	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	20	µg/m3
Naphthalene	ND	ND	ND	ND	ND	100	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Styrene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	20	µg/m3
Toluene	ND	ND	ND	ND	ND	20	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	100	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	20	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	20	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	20	µg/m3
o-Xylene	ND	ND	ND	ND	ND	100	µg/m3
MTBE	ND	ND	ND	ND	ND	100	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	20	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	20	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	20	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	20	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane [I]	100%	111%	102%	123%	106%	60 - 140	
Toluene-d_8	99%	97%	98%	102%	99%	60 - 140	
4-Bromofluorobenzene	97%	98%	92%	100%	96%	60 - 140	
	E2-072618-01	E1-072618-01	E2-072618-01	E1-072618-01	E2-072618-01		

ND= Not Detected

[I] 1,2-Dichloroethane-d4 surrogate recovery reported for E1-072618-01

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan 32 Executive Park, Ste 130 Irvine, CA 92614	**Report date:**	7/26/2018
		Jones Ref. No.:	E-0895
Attn:	Brad McCardell	**Date Sampled:**	7/26/2018
		Date Received:	7/26/2018
Project:	Aquamansa Commerce Park	**Date Analyzed:**	7/26/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**WCP-SG-3-5'**	**WCP-SG-3-15'**	**GCP-SG-1-5'**	**GCP-SG-1-15'**	**WCP-SG-2-5'**		
Jones ID:	**E-0895-21**	**E-0895-22**	**E-0895-23**	**E-0895-24**	**E-0895-25**	**Practical Quantitation Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	20	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	20	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	20	µg/m3
Bromoform	ND	ND	ND	ND	ND	20	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	20	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Chloroform	ND	ND	ND	ND	ND	20	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	20	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	20	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	20	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	20	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	WCP-SG-3-5'	WCP-SG-3-15'	GCP-SG-1-5'	GCP-SG-1-15'	WCP-SG-2-5'		
Jones ID:	**E-0895-21**	**E-0895-22**	**E-0895-23**	**E-0895-24**	**E-0895-25**	**Practical Quantitation Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Freon 113	ND	ND	ND	ND	ND	100	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	100	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	20	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	20	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	20	µg/m3
Naphthalene	ND	ND	ND	ND	ND	100	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Styrene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	20	µg/m3
Toluene	ND	ND	ND	ND	ND	20	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	100	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	20	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	20	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	20	µg/m3
o-Xylene	ND	ND	ND	ND	ND	100	µg/m3
MTBE	ND	ND	ND	ND	ND	100	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	20	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	20	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	20	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	20	µg/m3
TIC:							
n-Pentane	ND	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane [I]	115%	100%	125%	104%	125%	60 - 140	
Toluene-d_8	99%	95%	98%	100%	98%	60 - 140	
4-Bromofluorobenzene	96%	99%	98%	98%	99%	60 - 140	
	E1-072618-01	E2-072618-01	E1-072618-01	E2-072618-01	E1-072618-01		

ND= Not Detected

[I] 1,2-Dichloroethane-d4 surrogate recovery reported for E1-072618-01

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan 32 Executive Park, Ste 130 Irvine, CA 92614	**Report date:** **Jones Ref. No.:**	7/26/2018 E-0895
Attn:	Brad McCardell	**Date Sampled:** **Date Received:**	7/26/2018 7/26/2018
Project:	Aquamansa Commerce Park	**Date Analyzed:**	7/26/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**WCP-SG-2-15'**		
Jones ID:	**E-0895-26**	**Practical Quantitation Limit**	**Units**
Analytes:			
Benzene	ND	20	µg/m3
Bromobenzene	ND	20	µg/m3
Bromodichloromethane	ND	20	µg/m3
Bromoform	ND	20	µg/m3
n-Butylbenzene	ND	20	µg/m3
sec-Butylbenzene	ND	20	µg/m3
tert-Butylbenzene	ND	20	µg/m3
Carbon tetrachloride	ND	20	µg/m3
Chlorobenzene	ND	20	µg/m3
Chloroform	ND	20	µg/m3
2-Chlorotoluene	ND	20	µg/m3
4-Chlorotoluene	ND	20	µg/m3
Dibromochloromethane	ND	20	µg/m3
1,2-Dibromo-3-chloropropane	ND	20	µg/m3
1,2-Dibromoethane (EDB)	ND	20	µg/m3
Dibromomethane	ND	20	µg/m3
1,2- Dichlorobenzene	ND	20	µg/m3
1,3-Dichlorobenzene	ND	20	µg/m3
1,4-Dichlorobenzene	ND	20	µg/m3
Dichlorodifluoromethane	ND	20	µg/m3
1,1-Dichloroethane	ND	20	µg/m3
1,2-Dichloroethane	ND	20	µg/m3
1,1-Dichloroethene	ND	20	µg/m3
cis-1,2-Dichloroethene	ND	20	µg/m3
trans-1,2-Dichloroethene	ND	20	µg/m3
1,2-Dichloropropane	ND	20	µg/m3
1,3-Dichloropropane	ND	20	µg/m3
2,2-Dichloropropane	ND	20	µg/m3
1,1-Dichloropropene	ND	20	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**WCP-SG-2-15'**		
Jones ID:	**E-0895-26**	**Practical Quantitation Limit**	**Units**
Analytes:			
cis-1,3-Dichloropropene	ND	20	µg/m3
trans-1,3-Dichloropropene	ND	20	µg/m3
Ethylbenzene	ND	20	µg/m3
Freon 113	ND	100	µg/m3
Hexachlorobutadiene	ND	100	µg/m3
Isopropylbenzene	ND	20	µg/m3
4-Isopropyltoluene	ND	20	µg/m3
Methylene chloride	ND	20	µg/m3
Naphthalene	ND	100	µg/m3
n-Propylbenzene	ND	20	µg/m3
Styrene	ND	20	µg/m3
1,1,1,2-Tetrachloroethane	ND	20	µg/m3
1,1,2,2-Tetrachloroethane	ND	20	µg/m3
Tetrachloroethene	ND	20	µg/m3
Toluene	ND	20	µg/m3
1,2,3-Trichlorobenzene	ND	100	µg/m3
1,2,4-Trichlorobenzene	ND	20	µg/m3
1,1,1-Trichloroethane	ND	20	µg/m3
1,1,2-Trichloroethane	ND	20	µg/m3
Trichloroethene	ND	20	µg/m3
Trichlorofluoromethane	ND	20	µg/m3
1,2,3-Trichloropropane	ND	20	µg/m3
1,2,4-Trimethylbenzene	ND	20	µg/m3
1,3,5-Trimethylbenzene	ND	20	µg/m3
Vinyl chloride	ND	20	µg/m3
m,p-Xylene	ND	20	µg/m3
o-Xylene	ND	100	µg/m3
MTBE	ND	100	µg/m3
Ethyl-tert-butylether	ND	20	µg/m3
Di-isopropylether	ND	20	µg/m3
tert-amylmethylether	ND	20	µg/m3
tert-Butylalcohol	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	20	µg/m3
TIC:			
n-Pentane	ND	400	µg/m3
n-Hexane	ND	400	µg/m3
n-Heptane	ND	400	µg/m3
Dilution Factor	1		
Surrogate Recoveries:		**QC Limits**	
Dibromofluoromethane [I]	106%	60 - 140	
Toluene-d_8	101%	60 - 140	
4-Bromofluorobenzene	102%	60 - 140	
	E2-072618-01		

ND= Not Detected

[I] 1,2-Dichloroethane-d4 surrogate recovery reported for E1-072618-01

JONES ENVIRONMENTAL, INC.

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Langan 32 Executive Park, Ste 130 Irvine, CA 92614	**Report date:**	7/26/2018
		Jones Ref. No.:	E-0895
Attn:	Brad McCardell	**Date Sampled:**	7/26/2018
		Date Received:	7/26/2018
Project:	Aquamansa Commerce Park	**Date Analyzed:**	7/26/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	METHOD BLANK	SAMPLING BLANK	METHOD BLANK	SAMPLING BLANK		
Jones ID:	072618-E1MB1	072618-E1SB1	072618-E2MB1	072618-E2SB1	**Practical Quantitation Limit**	**Units**
Analytes:						
Benzene	ND	ND	ND	ND	20	µg/m3
Bromobenzene	ND	ND	ND	ND	20	µg/m3
Bromodichloromethane	ND	ND	ND	ND	20	µg/m3
Bromoform	ND	ND	ND	ND	20	µg/m3
n-Butylbenzene	ND	ND	ND	ND	20	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	20	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	20	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	20	µg/m3
Chlorobenzene	ND	ND	ND	ND	20	µg/m3
Chloroform	ND	ND	ND	ND	20	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	20	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	20	µg/m3
Dibromochloromethane	ND	ND	ND	ND	20	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	20	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	20	µg/m3
Dibromomethane	ND	ND	ND	ND	20	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	20	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	20	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	20	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	20	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	20	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	20	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	20	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	20	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	20	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	20	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	20	µg/m3

JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	METHOD BLANK	SAMPLING BLANK	METHOD BLANK	SAMPLING BLANK		
Jones ID:	072618-E1MB1	072618-E1SB1	072618-E2MB1	072618-E2SB1	Practical Quantitation Limit	Units
Analytes:						
cis-1,3-Dichloropropene	ND	ND	ND	ND	20	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	20	µg/m3
Ethylbenzene	ND	ND	ND	ND	20	µg/m3
Freon 113	ND	ND	ND	ND	100	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	100	µg/m3
Isopropylbenzene	ND	ND	ND	ND	20	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	20	µg/m3
Methylene chloride	ND	ND	ND	ND	20	µg/m3
Naphthalene	ND	ND	ND	ND	100	µg/m3
n-Propylbenzene	ND	ND	ND	ND	20	µg/m3
Styrene	ND	ND	ND	ND	20	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	20	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	20	µg/m3
Tetrachloroethene	ND	ND	ND	ND	20	µg/m3
Toluene	ND	ND	ND	ND	20	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	100	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	20	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	20	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	20	µg/m3
Trichloroethene	ND	ND	ND	ND	20	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	20	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	20	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	20	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	20	µg/m3
Vinyl chloride	ND	ND	ND	ND	20	µg/m3
m,p-Xylene	ND	ND	ND	ND	20	µg/m3
o-Xylene	ND	ND	ND	ND	100	µg/m3
MTBE	ND	ND	ND	ND	100	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	20	µg/m3
Di-isopropylether	ND	ND	ND	ND	20	µg/m3
tert-amylmethylether	ND	ND	ND	ND	20	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	20	µg/m3
TIC:						
n-Pentane	ND	ND	ND	ND	400	µg/m3
n-Hexane	ND	ND	ND	ND	400	µg/m3
n-Heptane	ND	ND	ND	ND	400	µg/m3
Dilution Factor	1	1	1	1		
Surrogate Recoveries:					**QC Limits**	
Dibromofluoromethane [I]	107%	113%	101%	107%	60 - 140	
Toluene-d_8	96%	93%	94%	98%	60 - 140	
4-Bromofluorobenzene	95%	98%	93%	96%	60 - 140	
	E1-072618-01	E1-072618-01	E2-072618-01	E2-072618-01		

ND= Not Detected

[I] 1,2-Dichloroethane-d4 surrogate recovery reported for E1-072618-01

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Langan 32 Executive Park, Ste 130 Irvine, CA 92614	**Report date:** **Jones Ref. No.:**	7/26/2018 E-0895
Attn:	Brad McCardell	**Date Sampled:** **Date Received:**	7/26/2018 7/26/2018
Project:	Aquamansa Commerce Park	**Date Analyzed:**	7/26/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Batch ID: E1-072618-01

Jones ID:	**072618-E1LCS1**	**072618-E1LCSD1**			**072618-E1CCV1**	
Parameter	LCS Recovery (%)	LCSD Recovery (%)	RPD	Acceptability Range (%)	CCV	Acceptability Range (%)
Vinyl chloride	109%	95%	13.9%	70 - 130	85%	80 - 120
1,1-Dichloroethene	135%	141%	4.5%	70 - 130	90%	80 - 120
Cis-1,2-Dichloroethene	120%	111%	7.7%	70 - 130	93%	80 - 120
1,1,1-Trichloroethane	102%	106%	4.1%	70 - 130	86%	80 - 120
Benzene	120%	112%	6.7%	70 - 130	89%	80 - 120
Trichloroethene	114%	104%	8.8%	70 - 130	85%	80 - 120
Toluene	115%	108%	6.9%	70 - 130	89%	80 - 120
Tetrachloroethene	117%	103%	12.8%	70 - 130	88%	80 - 120
Chlorobenzene	111%	105%	5.6%	70 - 130	94%	80 - 120
Ethylbenzene	110%	100%	9.8%	70 - 130	86%	80 - 120
1,2,4 Trimethylbenzene	113%	112%	0.9%	70 - 130	98%	80 - 120
Gasoline Range Organics (C4-C12)	115%	108%	6.0%	70 - 130		
Surrogate Recovery:						
1,2-Dichloroethane-d4	98%	100%		60 - 140	93%	60 - 140
Toluene-d_8	100%	97%		60 - 140	95%	60 - 140
4-Bromofluorobenzene	100%	160%		60 - 140	101%	60 - 140

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Langan 32 Executive Park, Ste 130 Irvine, CA 92614	**Report date:** **Jones Ref. No.:**	7/26/2018 E-0895
Attn:	Brad McCardell	**Date Sampled:** **Date Received:**	7/26/2018 7/26/2018
Project:	Aquamansa Commerce Park	**Date Analyzed:**	7/26/2018
Project Address:	1500 Rubidoux Blvd Riverside, CA 92509	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Batch ID: E1-072618-01

Jones ID:	**072618-E2LCS1**	**072618-E2LCSD1**			**072618-E2CCV1**	
Parameter	LCS Recovery (%)	LCSD Recovery (%)	RPD	Acceptability Range (%)	CCV	Acceptability Range (%)
Vinyl chloride	111%	111%	0.3%	70 - 130	118%	80 - 120
1,1-Dichloroethene	98%	102%	3.9%	70 - 130	83%	80 - 120
Cis-1,2-Dichloroethene	97%	87%	11.3%	70 - 130	82%	80 - 120
1,1,1-Trichloroethane	91%	86%	6.0%	70 - 130	81%	80 - 120
Benzene	96%	89%	7.3%	70 - 130	83%	80 - 120
Trichloroethene	90%	80%	10.9%	70 - 130	80%	80 - 120
Toluene	99%	87%	13.6%	70 - 130	88%	80 - 120
Tetrachloroethene	98%	91%	7.3%	70 - 130	91%	80 - 120
Chlorobenzene	93%	79%	17.0%	70 - 130	83%	80 - 120
Ethylbenzene	92%	81%	13.7%	70 - 130	85%	80 - 120
1,2,4 Trimethylbenzene	84%	76%	9.5%	70 - 130	83%	80 - 120
Gasoline Range Organics (C4-C12)	93%	83%	11.1%	70-130		
Surrogate Recovery:						
Dibromofluoromethane	100%	105%		60 - 140	98%	60 - 140
Toluene-d_8	97%	93%		60 - 140	98%	60 - 140
4-Bromofluorobenzene	97%	85%		60 - 140	98%	60 - 140

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%

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Soil-Gas Chain-of-Custody Record

Client: Langan
Project Name: Aquamansa Commerce Park
Project Address: 1500 Rubidoux Blvd, Riverside, CA 92509
Email:
Phone:
Report To: Brad McCardell
Sampler: Kevin Horchler

Date: 7/26/2018
Client Project #:

Purge Number: □ 1P ☒ 3P □ 7P □ 10P
Shut-In Test: (Y) / N

Report Options: EDD ____ EDF* - 10% Surcharge____ *Global ID _____

Turn Around Requested: □ Immediate Attention □ Rush 24 Hours □ Rush 48 Hours □ Rush 72 Hours □ Normal ☒ Mobile Lab

Tracer: ☒ n-pentane ☒ n-hexane ☒ n-heptane □ Helium □ 1,1-DFA □ _____

Reporting Limits Requested: ☑ Commercial □ Residential **Units:** ug/m3

LAB USE ONLY
Jones Project #: E-0895

Page 1 of 3

Sample Container: GLASS GAS-TIGHT SYRINGE
If different than above, see Notes.

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	8260B	TPHg			Magnehelic Vacuum (In/H_2O)	Number of Containers	Notes & Special Instructions
MAP-SG-2-5'	3	19400	7/26/18	8:23	8:24	E-0895-01	500	SKC1	M100.104	SG	X	X			<2	1	
MAP-SG-2-15'	3	19500	7/26/18	8:22	8:24	E-0895-02	500	SKC2	M100.110	SG	X	X			<2	1	
MAP-SG-3-5'	3	19400	7/26/18	9:19	9:21	E-0895-03	200	STEVE.2	118008	SG	X	X			<2	1	
MAP-SG-3-15'	3	19500	7/26/18	9:19	9:21	E-0895-04	200	ANGELA.1	118011	SG	X	X			<2	1	
MAP-SG-1-5'	3	19400	7/26/18	9:38	9:44	E-0895-05	500	SKC1	M100.104	SG	X	X			<2	1	
MAP-SG-1-15'	3	19500	7/26/18	9:40	9:44	E-0895-06	500	SKC2	M100.110	SG	X	X			<2	1	
MAP-SG-1-5' REP	3	19400	7/26/18	9:59	10:01	E-0895-07	500	SKC1	M100.104	SG	X	X			<2	1	
MAP-SG-1-15' REP	3	19500	7/26/18	10:00	10:01	E-0895-08	500	SKC2	M100.110	SG	X	X			<2	1	
MAP-SG-7-5'	3	19400	7/26/18	10:38	10:41	E-0895-09	500	SKC1	M100.104	SG	X	X			<2	1	
MAP-SG-7-15'	3	19500	7/26/18	10:39	10:42	E-0895-10	500	SKC2	M100.110	SG	X	X			<2	1	

Relinquished By (Signature)	Printed Name: Brad McCardell	Received By (Signature)	Printed Name: Kevin Horchler	10	Total Number of Containers
Company: Langan	Date: 7/26/2018 Time:	Company: Jones Envrionmental, Inc.	Date: 7/26/2018 Time: 14:40		
Relinquished By (Signature)	Printed Name:	Received By Laboratory (Signature)	Printed Name: Brad A. McCardell		
Company	Date: Time:	Company: Langan	Date: 7/26/18 Time: 1440		

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

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Santa Fe Springs, CA 90670
(714) 449-9937
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Soil-Gas Chain-of-Custody Record

Client: Langan
Project Name: Aquamansa Commerce Park
Project Address: 1500 Rubidoux Blvd, Riverside, CA 92509
Email:
Phone:
Report To: Brad McCardell
Sampler: Kevin Horchler
Date: 7/26/2018
Client Project #:

Purge Number: ☐ 1P ☑ 3P ☐ 7P ☐ 10P
Shut-In Test: (Y) / N

Report Options: EDD ____ EDF* - 10% Surcharge____ *Global ID _____

Turn Around Requested: ☐ Immediate Attention ☐ Rush 24 Hours ☐ Rush 48 Hours ☐ Rush 72 Hours ☐ Normal ☑ Mobile Lab

Tracer: ☒ n-pentane ☐ n-hexane ☑ n-heptane ☐ Helium ☐ 1,1-DFA ☐ _____

Reporting Limits Requested: ☑ Commercial ☐ Residential **Units:** ug/m3

LAB USE ONLY
Jones Project #: E-0895

Page 2 of 3

Sample Container: GLASS GAS-TIGHT SYRINGE
If different than above, see Notes.

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	8260B	TPHg			Magnehelic Vacuum (In/H_2O)	Number of Containers	Notes & Special Instructions
MAP-SG-4-5'	3	19400	7/26/18	11:13	11:17	E-0895-11	200	STEVE.2	118008	SG	X	X			<2	1	
MAP-SG-4-15'	3	19500	7/26/18	11:14	11:17	E-0895-12	200	ANGELA.1	118011	SG	X	X			<2	1	
MAP-SG-4-5' REP	3	19400	7/26/18	11:30	11:33	E-0895-13	200	STEVE.2	118008	SG	X	X			<2	1	
MAP-SG-4-15' REP	3	19500	7/26/18	11:31	11:33	E-0895-14	200	ANGELA.1	118011	SG	X	X			<2	1	
MAP-SG-5-5'	3	19400	7/26/18	12:00	12:03	E-0895-15	500	SKC1	M100.104	SG	X	X			<2	1	
MAP-SG-5-15'	3	19500	7/26/18	11:58	12:03	E-0895-16	500	SKC2	M100.110	SG	X	X			<2	1	
WCP-SG-1-5'	3	19400	7/26/18	12:58	1:00	E-0895-17	500	SKC1	M100.104	SG	X	X			<2	1	
WCP-SG-1-15'	3	19500	7/26/18	12:58	1:00	E-0895-18	500	SKC2	M100.110	SG	X	X			<2	1	
MAP-SG-6-5'	3	19400	7/26/18	1:24	1:26	E-0895-19	200	STEVE.2	118008	SG	X	X			<2	1	
MAP-SG-6-15'	3	19500	7/26/18	1:25	1:26	E-0895-20	200	ANGELA.1	118011	SG	X	X			<2	1	

Relinquished By (Signature)	Printed Name: Brad McCardell	Received By (Signature)	Printed Name: Kevin Horchler
Company: Langan	Date: 7/26/2018 Time:	Company: Jones Environmental, Inc.	Date: 7/26/2018 Time: 1446
Relinquished By (Signature)	Printed Name	Received By Laboratory (Signature)	Printed Name: Brad McCardell
Company	Date Time	Company: Langan	Date: 7/26/18 Time: 1440

10 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

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Soil-Gas Chain-of-Custody Record

Client: Langan
Project Name: Aquamansa Commerce Park
Project Address: 1500 Rubidoux Blvd, Riverside, CA 92509
Email:
Phone:
Report To: Brad McCardell
Sampler: Kevin Horchler

Date: 7/26/2018
Client Project #:

Purge Number: □ 1P ☑ 3P □ 7P □ 10P
Shut-In Test: (Y) / N

Report Options: EDD ____ EDF* - 10% Surcharge____ *Global ID _____

Turn Around Requested:
□ Immediate Attention
□ Rush 24 Hours
□ Rush 48 Hours
□ Rush 72 Hours
□ Normal
☑ Mobile Lab

Tracer:
☑ n-pentane
☑ n-hexane
☑ n-heptane
□ Helium
□ 1,1-DFA
□ _____

Reporting Limits Requested: ☑ Commercial □ Residential
Units: µg/m³

LAB USE ONLY
Jones Project #: E-0895

Page 3 of 3
Sample Container: GLASS GAS-TIGHT SYRINGE
If different than above, see Notes.

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	8260B	TPHg			Magnehelic Vacuum (In/H_2O)	Number of Containers	Notes & Special Instructions
WCP-SG-3-5'	3	19400	7/26/18	2:11	2:15	E-0895-21	500	SKC1	M100.104	SG	X	X			<2	1	
WCP-SG-3-15'	3	19500	7/26/18	2:12	2:16	E-0895-22	500	SKC2	M100.110	SG	X	X			<2	1	
GCP-SG-1-5'	3	19400	7/26/18	14:54	14:56	E-0895-23	500	SKC1	M100.104	SG	X	X				1	
GCP-SG-1-15'	3	19500	7/26/18	14:53	14:56	E-0895-24	500	SKC2	M100.110	SG	X	X				1	
WCP-SG-2-5'	3	19400	7/26/18	15:17	15:20	E-0895-25	200	STEVE.2	118008	SG	X	X				1	
WCP-SG-2-15'	3	19500	7/26/18	15:18	15:20	E-0895-26	200	ANGELA.1	118011	SG	X	X				1	

Relinquished By (Signature)	Printed Name	Received By (Signature)	Printed Name		
	Brad McCardell		Kevin Horchler	6	Total Number of Containers
Company	**Date / Time**	**Company**	**Date / Time**		
Langan	7/26/2018	Jones Envrionmental, Inc.	7/26/2018 1940		
Relinquished By (Signature)	**Printed Name**	**Received By Laboratory (Signature)**	**Printed Name**		
			Brad McCardell		
Company	**Date / Time**	**Company**	**Date / Time**		
		Langan	7/26/18 1940		

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

APPENDIX E
Laboratory Analytical Reports – Soil

Performance Analytical Laboratories, Inc.

ELAP 2960

July 24, 2018

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Aqua Mansa

Work Order: P807009

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/17/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 14

Qualifiers and Definitions 20

Chain of Custody PDF 21

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807009-01	SW-2-1'		Solid	07/16/2018	07/17/2018
P807009-02	SW-2-5'		Solid	07/16/2018	07/17/2018
P807009-03	SW-1-1'		Solid	07/16/2018	07/17/2018
P807009-04	SW-1-5'		Solid	07/16/2018	07/17/2018
P807009-05	SW-19-1'		Solid	07/16/2018	07/17/2018
P807009-06	SW-19-5'		Solid	07/16/2018	07/17/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-2-1' **P807009-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193551)							
Antimony	**5.07**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**5.34**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**78.4**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**17.2**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**8.53**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**13.4**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Lead	**15.8**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/23/2018	EPA 6010B	
Nickel	**11.4**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	**5.66**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	**3.27**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**31.2**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**54.6**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C28-C33	**7.73**	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C34-C40	**3.87**	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	94.2%			60-140	07/21/2018	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-2-1' (Continued) **P807009-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193633)							
Mercury	ND	mg/Kg	1	0.14	07/24/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	79%			50-150	07/20/2018	EPA 8082	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-2-5' **P807009-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193551)							
Antimony	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**1.45**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**28.8**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**10.2**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**5.70**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**8.60**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Lead	**4.99**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/23/2018	EPA 6010B	
Nickel	**7.22**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	**3.24**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**20.9**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**27.7**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	102%			60-140	07/21/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-2-5' (Continued) **P807009-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193607) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193633)							
Mercury	ND	mg/Kg	1	0.14	07/24/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	100%			50-150	07/20/2018	EPA 8082	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-1-1' **P807009-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193551)							
Antimony	**8.33**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**6.79**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**57.9**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**15.6**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**8.28**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**10.8**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Lead	**10.6**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/23/2018	EPA 6010B	
Nickel	**10.4**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**30.2**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**44.4**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193633)							
Mercury	ND	mg/Kg	1	0.14	07/24/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-1-5' **P807009-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193551)							
Antimony	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**4.05**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**25.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**9.96**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**6.25**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**8.97**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Lead	**4.98**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/23/2018	EPA 6010B	
Nickel	**7.81**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**23.0**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**28.4**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193633)							
Mercury	ND	mg/Kg	1	0.14	07/24/2018	EPA 7471A	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-19-1' **P807009-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193551)							
Antimony	**10.4**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**5.03**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**68.4**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**18.9**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**6.25**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**15.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Lead	**33.4**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/23/2018	EPA 6010B	
Nickel	**12.1**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	**8.21**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**26.4**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**47.7**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C28-C33	**29.2**	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C34-C40	**13.4**	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	81.3%			60-140	07/21/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-19-1' (Continued) **P807009-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193607) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193633)							
Mercury	ND	mg/Kg	1	0.14	07/24/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	127%			50-150	07/20/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-19-5' **P807009-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193551)							
Antimony	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**5.10**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**63.5**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	**6.04**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**25.0**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**5.44**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**12.4**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Lead	**118**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/23/2018	EPA 6010B	
Nickel	**11.9**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	**10.8**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**24.8**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**38.4**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C21-C22	**3.23**	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C23-C24	**6.93**	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C25-C27	**5.73**	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C28-C33	**42.2**	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C34-C40	**31.9**	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	95.5%			60-140	07/21/2018	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-19-5' (Continued) **P807009-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	**1870**	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193633)							
Mercury	ND	mg/Kg	1	0.14	07/24/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	98%			50-150	07/20/2018	EPA 8082	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193551										
LCS (QC1193551LCS1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Lead	101		1	mg/Kg	100	NA	101	80-120		0
Antimony	103		3	mg/Kg	100	NA	103	80-120		0
Arsenic	98.6		1	mg/Kg	100	NA	99	80-120		0
Barium	98.2		1	mg/Kg	100	NA	98	80-120		0
Beryllium	91.5		0.5	mg/Kg	100	NA	92	80-120		0
Cadmium	97.8		0.5	mg/Kg	100	NA	98	80-120		0
Chromium	96.1		1	mg/Kg	100	NA	96	80-120		0
Copper	98.7		1	mg/Kg	100	NA	99	80-120		0
Molybdenum	91.5		1	mg/Kg	100	NA	92	80-120		0
Nickel	101		1.5	mg/Kg	100	NA	101	80-120		0
Selenium	89.4		3	mg/Kg	100	NA	89	80-120		0
Silver	96.6		0.5	mg/Kg	100	NA	97	80-120		0
Thallium	96.2		3	mg/Kg	100	NA	96	80-120		0
Vanadium	96.7		0.5	mg/Kg	100	NA	97	80-120		0
Cobalt	101		0.5	mg/Kg	100	NA	101	80-120		0
Zinc	103		5	mg/Kg	100	NA	103	80-120		0
Method Blank (QC1193551MB1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Silver	ND		0.5	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Copper	ND		1	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Vanadium	ND		0.5	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193551 (Continued)										
MS (QC1193551MS1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Cadmium	88.5		0.5	mg/Kg	100	ND	89	75-125		0
Antimony	60.1	M	3	mg/Kg	100	5.07	55	75-125		0
Arsenic	101		1	mg/Kg	100	5.34	96	75-125		0
Barium	175		1	mg/Kg	100	78.4	97	75-125		0
Beryllium	87.1		0.5	mg/Kg	100	ND	87	75-125		0
Chromium	105		1	mg/Kg	100	17.2	88	75-125		
Molybdenum	83.2		1	mg/Kg	100	0.24	83	75-125		
Cobalt	97.7		0.5	mg/Kg	100	8.53	89	75-125		
Copper	109		1	mg/Kg	100	13.4	96	75-125		
Lead	109		1	mg/Kg	100	15.8	93	75-125		
Nickel	101		1.5	mg/Kg	100	11.4	90	75-125		
Selenium	96.3		3	mg/Kg	100	5.66	91	75-125		
Zinc	151		5	mg/Kg	100	54.6	96	75-125		
Thallium	88.1		3	mg/Kg	100	3.27	85	75-125		
Vanadium	124		0.5	mg/Kg	100	31.2	93	75-125		
Silver	90.4		0.5	mg/Kg	100	ND	90	75-125		
MSD (QC1193551MSD1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Nickel	95.1		1.5	mg/Kg	100	11.4	84	75-125	6	20
Vanadium	118		0.5	mg/Kg	100	31.2	87	75-125	5	20
Thallium	83.0		3	mg/Kg	100	3.27	80	75-125	6	20
Selenium	89.3		3	mg/Kg	100	5.66	84	75-125	7.5	20
Zinc	139		5	mg/Kg	100	54.6	84	75-125	8.3	20
Molybdenum	79.6		1	mg/Kg	100	0.24	79	75-125	4.4	20
Lead	102		1	mg/Kg	100	15.8	86	75-125	6.6	20
Copper	104		1	mg/Kg	100	13.4	91	75-125	4.7	20
Cobalt	93.8		0.5	mg/Kg	100	8.53	85	75-125	4.1	20
Chromium	99.7		1	mg/Kg	100	17.2	83	75-125	5.2	20
Cadmium	83.9		0.5	mg/Kg	100	ND	84	75-125	5.3	20
Beryllium	85.2		0.5	mg/Kg	100	ND	85	75-125	2.2	20
Silver	86.3		0.5	mg/Kg	100	ND	86	75-125	4.6	20
Barium	162		1	mg/Kg	100	78.4	84	75-125	7.7	20
Arsenic	93.0		1	mg/Kg	100	5.34	88	75-125	8.2	20
Antimony	52.8	M	3	mg/Kg	100	5.07	48	75-125	12.9	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0013										
Blank (B8G0013-BLK1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.09			mg/kg	2.00		104	60-140		
LCS (B8G0013-BS1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	46.0		2.50	mg/kg	50.0		91.9	70-130		
Surrogate: n-Octacosane (c28)	2.09			mg/kg	2.00		104	60-140		
LCS Dup (B8G0013-BSD1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	47.1		2.50	mg/kg	50.0		94.3	70-130	2.52	20
Surrogate: n-Octacosane (c28)	2.05			mg/kg	2.00		102	60-140		
Matrix Spike (B8G0013-MS1)		**Source: P807011-03**		Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	43.7		2.50	mg/kg	50.0	2.81	81.8	70-130		
Surrogate: n-Octacosane (c28)	2.00			mg/kg	2.00		99.8	60-140		
Matrix Spike Dup (B8G0013-MSD1)		**Source: P807011-03**		Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	44.5		2.50	mg/kg	50.0	2.81	83.4	70-130	1.72	20
Surrogate: n-Octacosane (c28)	2.02			mg/kg	2.00		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193607										
Duplicate (QC1193607DUP1)		**Source: NA**		Prepared & Analyzed: 07/23/2018						
Hexavalent Chromium	ND	D	400	ug/Kg	0	ND		-	0	20
LCS (QC1193607LCS1)		**Source: NA**		Prepared & Analyzed: 07/23/2018						
Hexavalent Chromium	40400		400	ug/Kg	40000	NA	101	80-120		
Method Blank (QC1193607MB1)		**Source: NA**		Prepared & Analyzed: 07/23/2018						
Hexavalent Chromium	ND		400	ug/Kg		NA		-		
MS (QC1193607MS2)		**Source: NA**		Prepared & Analyzed: 07/23/2018						
Hexavalent Chromium	42700		400	ug/Kg	40000	ND	106	75-125		
Hexavalent Chromium	39200		400	ug/Kg	40000	ND	97	75-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193633										
LCS (QC1193633LCS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Mercury	0.80		0.14	mg/Kg	0.83	NA	96	80-120		
Method Blank (QC1193633MB1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193633MS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Mercury	0.85		0.14	mg/Kg	0.83	0.03	99	75-125		
MSD (QC1193633MSD1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Mercury	0.81		0.14	mg/Kg	0.83	0.03	94	75-125	4.8	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Polychlorinated Biphenyls_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193476										
LCS (QC1193476LCS1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
PCB-1260	490		50	ug/Kg	500	NA	98	70-130		0
PCB-1016	490		50	ug/Kg	500	NA	98	70-130		0
Surrogate: Decachlorobiphenyl DCB (SUR)	45.53			ug/Kg	50	NA	91	50-150		
Method Blank (QC1193476MB1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
PCB-1248	ND		50	ug/Kg		NA		-		
PCB-1268	ND		50	ug/Kg		NA		-		
PCB-1262	ND		50	ug/Kg		NA		-		
PCB-1254	ND		50	ug/Kg		NA		-		
PCB-1242	ND		50	ug/Kg		NA		-		
PCB-1232	ND		50	ug/Kg		NA		-		
PCB-1221	ND		50	ug/Kg		NA		-		
PCB-1016	ND		50	ug/Kg		NA		-		
PCB-1260	ND		50	ug/Kg		NA		-		
Surrogate: Decachlorobiphenyl DCB (SUR)	55.31			ug/Kg	50	NA	111	50-150		
MS (QC1193476MS1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
PCB-1260	440		50	ug/Kg	500	ND	88	70-130		0
PCB-1016	440		50	ug/Kg	500	ND	88	70-130		0
Surrogate: Decachlorobiphenyl DCB (SUR)	40.12			ug/Kg	50	NA	80	50-150		
MSD (QC1193476MSD1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
PCB-1260	500		50	ug/Kg	500	ND	100	70-130	12.8	20
PCB-1016	500		50	ug/Kg	500	ND	100	70-130	12.8	20
Surrogate: Decachlorobiphenyl DCB (SUR)	43.23			ug/Kg	50	NA	86	50-150		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
D	RPD was not within control limits. The sample data was reported without further clarification.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL WO#: P807009

Client Name	Langan
Address	515 South Flower Street Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Title 22 Metals 6010/7000	CrVI 7199	TPH carbon chain 8015	PCBs 8082
1	SW-2-1'	7/16	1220	S	2/ 8oz. jar	X	X	X	X
2	SW-2-5'	7/16	1225	S	2/ 8oz. jar	X	X	X	X
3	SW-1-1'	7/16	1325	S	2/8oz. jar	X	X		
4	SW-1-5'	7/16	1330	S	2/ 8oz. jar	X	X		
5	SW-19-1'	7/16	1625	S	2/ 8oz. jar	X	X	X	X
6	SW-19-5'	7/16	1630	S	2/ 8oz. jar	X	X	X	X
7									
8									
9									
10									

G-2762

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	**STD** 5 day	**RUSH** 24	48	72
EDD Required - Circle one:	Yes	No		
Type of EDD:				
Reciept Temp./ Initials: (Temp recorded is not corrected)				

RELINQUISHED BY

Signature: Brad McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/17/18
TIME: 0727

RECEIVED BY

Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 7/17/18
TIME: 1004

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)

****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)

****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807009

Cooler 1 OF 1

Client Langan

Date Received: 7/17/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	5.9	6.0	5.9	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	☒	☐	☐
All samples listed on COC(s) are present	☒	☐	☐
All sample info on containers are consistent with sample info on COC(s)	☒	☐	☐
Correct containers for analyses requested	☒	☐	☐
Sufficient volume for analyses requested	☒	☐	☐
Proper preservation chemical(s) noted on COC and/or sample container	☒	☐	☐
All samples received within method holding time	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm	☐	☐	☒

NOTES

Initials	Date	Initials	Date
MV	7/17/18		

Performance Analytical Laboratories, Inc. 404673

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807009

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P807009-01 Matrix: Solid Sampled: 07/16/2018 12:20			
S_Hexavalent Chromium 7199	5	07/24/2018 15:00	
S_Mercury 7471	5	07/24/2018 15:00	
S_Metals 6010B Title 22	5	07/24/2018 15:00	
S_PCB 8082	5	07/24/2018 15:00	
Containers Supplied: Glass Jar, 4 oz (B) Glass Jar, 4 oz (C)			
Sample ID: P807009-02 Matrix: Solid Sampled: 07/16/2018 12:25			
S_Hexavalent Chromium 7199	5	07/24/2018 15:00	
S_Mercury 7471	5	07/24/2018 15:00	
S_Metals 6010B Title 22	5	07/24/2018 15:00	
S_PCB 8082	5	07/24/2018 15:00	
Containers Supplied: Glass Jar, 4 oz (B) Glass Jar, 4 oz (C)			
Sample ID: P807009-03 Matrix: Solid Sampled: 07/16/2018 13:25			
S_Hexavalent Chromium 7199	5	07/24/2018 15:00	
S_Mercury 7471	5	07/24/2018 15:00	
S_Metals 6010B Title 22	5	07/24/2018 15:00	
Containers Supplied: Glass Jar, 4 oz (B) Glass Jar, 4 oz (C)			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	7/18/18	936	Sam Ramirez	7/18/18	9:36
Sam Ramirez	7/18/18	1046	[illegible]	7/18/18	1855

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807009

Analysis	TAT	Due	Comments
Sample ID: P807009-04 Matrix: Solid Sampled: 07/16/2018 13:30			
S_Hexavalent Chromium 7199	5	07/24/2018 15:00	
S_Mercury 7471	5	07/24/2018 15:00	
S_Metals 6010B Title 22	5	07/24/2018 15:00	
Containers Supplied: Glass Jar, 4 oz (B) Glass Jar, 4 oz (C)			
Sample ID: P807009-05 Matrix: Solid Sampled: 07/16/2018 16:25			
S_Hexavalent Chromium 7199	5	07/24/2018 15:00	
S_Mercury 7471	5	07/24/2018 15:00	
S_Metals 6010B Title 22	5	07/24/2018 15:00	
S_PCB 8082	5	07/24/2018 15:00	
Containers Supplied: Glass Jar, 4 oz (B) Glass Jar, 4 oz (C)			
Sample ID: P807009-06 Matrix: Solid Sampled: 07/16/2018 16:30			
S_Hexavalent Chromium 7199	5	07/24/2018 15:00	
S_Mercury 7471	5	07/24/2018 15:00	
S_Metals 6010B Title 22	5	07/24/2018 15:00	
S_PCB 8082	5	07/24/2018 15:00	
Containers Supplied: Glass Jar, 4 oz (B) Glass Jar, 4 oz (C)			

Released By	Date	Time	Received By	Date	Time
M Wolfenbarger	7/18/18	936	Sam Ram	7/18/18	9:38
Sam Ram	7/18/18	10:40	Mai Lopez	7/18/18	1055

G-2765

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SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: _____

Date Received: 07/18/18 Sampler's Name Present: ☐ Yes ☑ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 4.9 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 2.6 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	✓		
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 7/18/18

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www.enthalpy.com/socal

CALIFORNIA DEPARTMENT OF TOXIC SUBTANCES CONTROL (DTSC)
HUMAN AND ECOLOGICAL RISK OFFICE (HERO)

HUMAN HEALTH RISK ASSESSMENT (HHRA) NOTE

HERO HHRA NOTE NUMBER: 2

ISSUE DATE: April 2017

ISSUE: Soil Remedial Goals for Dioxins and Dioxin-like Compounds for Consideration at California Hazardous Waste Sites

SUMMARY

This HHRA Note presents the recommended remedial goals for soils contaminated by dioxins and dioxin-like compounds expressed as dioxin toxicity equivalent (Dioxin-TEQs) concentrations. The US Environmental Protection Agency (EPA) has released only the non-cancer reassessment for dioxins (May 2010) (8); therefore, this note has been revised to present new information on how the non-cancer effects of dioxins and dioxin-like compounds can inform the development of health-protective remedial goals for mitigation sites in California. These goals may be further revised in the future, as new scientific information becomes available or when the U.S. EPA completes its reassessment of dioxins to also include the potential cancer risk.

These soil remedial goals do not supplant the US EPA Regional Screening Levels (RSLs) in a screening risk evaluation but are intended for use in the remediation process. The rationale for the use of these recommended remedial goals is provided in this note.

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Table 1 - Dioxin-TEQ Soil Remedial Goals for Sites in California

Exposure Scenario	**ng WHO-TEQ/kg dry matter (ppt)** (9)	**Comments**
Residential[a,b]	50	• 10^{-5} risk level[c] • Noncancer HQ=1 • Compare to 95% UCL exposure concentration
Commercial/Industrial[d, e]	220 - 700	• 10^{-5} risk level to the HQ of 1 • Compare to 95% UCL exposure concentration
Agricultural[f]	<40	• Based on Germany Guideline (4) • Ceiling value

a) This is based on the US EPA residential soil RSL of 5 x 10^{-6} mg/kg (five parts per trillion (ppt)). The RSL was calculated based on a target carcinogenic risk of one-in-a-million (10^{-6}) (7). HERO is supporting a cleanup goal associated with a theoretical potential cancer risk of 10^{-5} because epidemiological studies have demonstrated that exposure to dioxin-contaminated soil is responsible for only a minimal contribution to the dioxin human body burden which suggest that the value of 10^{-5} is likely a large overestimation of the actual risk. The University of Michigan Dioxin Exposure Study (6), conducted on 946 persons, showed that less than 0.01% of the variation in serum dioxin concentrations could be attributed to polychlorinated dibenzo-p-dioxins (PCDDs) in soil and household dust. A study of women in West Virginia led to similar conclusions (3). The recommended remedial goal, based on both theoretical cancer risk and the information from the epidemiological studies, is the same as the US EPA non-cancer residential RSL of 50 ppt at the hazard quotient (HQ) threshold of one (7). If this remedial goal is used, EPA SW-846 screening level bioanalytical assays (4000 series) may be considered in initial site investigation activities, rather than the more sensitive (and more costly) 8000 series methods.

b) The recommended residential remedial goal should only be considered if farming or raising of food animals as the majority of the food supply for residents is not likely to take place at the site. Otherwise, the remedial goal should revert to 5 ppt, representing a 10^{-6} cancer risk level, and accounting for the more frequent soil exposure by residents and long-term ingestion of potentially contaminated food products.

c) Although this suggested residential remedial goal technically represents a theoretical 10^{-5} potential cancer risk, HERO supports this cleanup goal when animal farming as the main source of food for residents is excluded, because the studies referenced in footnote a) show that exposure to soil under normal residential conditions has minimal influence on the serum of exposed individuals and accordingly the 10^{-5} potential risk level is likely an overestimation of the actual potential risk.

d) The US EPA commercial/industrial, cancer-risk-based RSL is 22 ppt, representing a target risk of 10^{-6}. However, if the worker primarily works indoors, HERO recommends using remedial goal of 220 ppt, using the same reasoning as presented in footnote a). Depending on site-specific circumstances and through consultation with a HERO toxicologist, the non-cancer derived remedial goal of 700 ppt, representing a HQ of one may be adequately protective.

e) The commercial/industrial, cancer-risk-based remedial goal of 220 ppt may not be adequately protective if the receptor primarily works outdoors and is in direct contact with site soils while performing daily work activities so that regular incidental ingestion of contaminated soil may occur. In this case, the recommended remedial goal should revert to 22 ppt.

f) A HERO toxicologist should be consulted before using this remedial goal as a ceiling value, since an alternative remedial goal may need to be considered, based on site-specific agricultural land use. Agricultural use standards for some countries, as listed in Table 3, are in the range of California rural background concentrations.

Dioxin-TEQ remedial goals based on the protection of ecological health: The soil remedial goals derived herein are not necessarily protective of ecological organisms (receptors). Protectiveness is variable depending on the ecological receptors of concern at the site. Invertebrates and plants are generally not sensitive to dioxins, while some wildlife receptors can be markedly susceptible and could drive a risk-based cleanup. Consult with a HERO ecological risk assessor if your site contains habitat or could release dioxins to off-site habitat(s).

Table 2 – 2005 World Health Organization Human Toxic Equivalency Factors (TEFs) for Dioxins and Dioxin-like Compounds (9)

Compound	WHO 2005 TEF
Chlorinated dibenzo-p-dioxins	
2,3,7,8-TCDD	1
1,2,3,7,8-PeCDD	1
1,2,3,4,7,8-HxCDD	0.1
1,2,3,6,7,8,-HxCDD	0.1
1,2,3,7,8,9-HxCDD	0.1
1,2,3,4,6,7,8-HpCDD	0.01
OCDD	0.0003
Chlorinated dibenzofurans	
2,3,7,8-TCDF	0.1
1,2,3,7,8-PeCDF	0.03
2,3,4,7,8-PeCDF	0.3
1,2,3,4,7,8-HxCDF	0.1
1,2,3,6,7,8-HxCDF	0.1
1,2,3,7,8,9-HxCDF	0.1
2,3,4,6,7,8-HxCDF	0.1
1,2,3,4,6,7,8-HpCDF	0.01
1,2,3,4,7,8,9-HpCDF	0.01
OCDF	0.0003
Non-ortho substituted PCBs	
PCB 77	0.0001
PCB 81	0.0003
PCB 126	0.1
PCB 169	0.03
mono-ortho substituted PCBs	
105	0.00003
114	0.00003
118	0.00003
123	0.00003
156	0.00003
157	0.00003
167	0.00003
189	0.00003

TEQ concentrations are calculated by multiplying the measured congener concentration in a soil sample by its TEF (Table 2), and adding these converted values to produce the Dioxin-TEQ concentration for the sample. These TEFs were accepted by the DTSC Human and Ecological Risk Division in October 2006 and are equivalent to those adopted by the California Environmental Protection Agency (CalEPA) Office of Environmental Health Hazard Assessment (OEHHA) in January 2011 (2).

Table 3 - Current Agricultural Dioxin-TEQ Guidelines/Standards

Country/Entity	Landscape Scenario	ng WHO-TEQ per kg dry matter (ppt)	Comments	Reference
Finland	Agricultural/Residential	500	Limit value	4
Germany	Agricultural	5 – 40		5
	Agricultural	<5	Target concentration	5
The Netherlands	Agricultural	1		5
	Dairy farming	10		5
Sweden	Sensitive use	10		5
	Less sensitive use	250		5
California ambient	Urban	7-20	Mean ~ 9	1
	Rural	1-6	Mean ~ 3	1

A range of standards have been proposed or put in place for agricultural land use scenarios by various regulatory entities as listed in Table 3. This is not meant to be a complete list but provides a range of remedial goals to consider for agricultural land use.

References

1. California Department of Food and Agriculture. Evaluation of Heavy Metals and Dioxin in Inorganic Commercial Fertilizers and California Cropland Soils. December 2004

2. California Environmental Protection Agency. Adoption of Revised Toxicity Equivalency Factors (TEFWHO-05) for PCDDs, PCDFs, and Dioxin-like PCBs. Memorandum, dated January 28, 2011, from the Office of Environmental Health Hazard Assessment (OEHHA). 2011

3. Diliberto, Janet J., et al. Cohort Study of Women in West Virginia: Serum Levels of Dioxin and Dioxin-Like Compounds. Organohalogen Compounds, Vol. 70: 000654. 2008.

4. Environment Protection and Heritage Council. National Dioxins Program – National Action Plan for addressing dioxins in Australia. October 2005.

5. Fiedler, Heidelore. Chapter 6. Dioxins and Furans (PCDD/PCDF) in The Handbook of Environmental Chemistry Vol.3, Part O Persistent Organic Pollutants, Springer-Verlag Berlin Heidelberg 2003.

6. Garabrant, D., et al. Predictors of Serum TEQ and PCDD Concentrations in People from Michigan, USA. Organohalogen Compounds. Vol. 70:000094. 2008.

7. U.S. Environmental Protection Agency. Regional Screening Levels. https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016

8. U.S. Environmental Protection Agency. Dioxin Reassessment (2010). Appendix A. Reanalysis of Key Issues Related to Dioxin Toxicity and Response to NAS Comments, Volume 1 (2012).

9. Van den Berg, M. et al. The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds. Toxicological Sciences 93(2): 223-241. 2006

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P807020-19 (404789-014)						Detailed Results - Method 8290	
Client Details							
Client Sample ID:	P807020-19 (404789-014)		**Client Name:**	**EA Orange**			
Client Project ID:	404789		**Sample Collection Date:**	**20-Jul-18**		**RRFs:**	**CS3 AB**
Lab/Sample Details							
Lab Job #:	**J126**	**Matrix:**	**Soil**	**Date Received:**	**25-Jul-18**		
Lab Sample ID:	**J126_10110_001**	**Weight/Volume:**	**16.4**	**Date Extracted:**	**7/31/18**		
QC Batch #:	**10110**	**Split Factor:**	**1**	**Date Analyzed:**	**06-Aug-18**		
Dilution:	-			**Time Analyzed:**	**17:39:13**		

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0407			ES 2,3,7,8-TCDD	83.6	
1,2,3,7,8-PeCDD	ND	0.0547			ES 1,2,3,7,8-PeCDD	79.5	
1,2,3,4,7,8-HxCDD	ND	0.0518			ES 1,2,3,4,7,8-HxCDD	77.6	
1,2,3,6,7,8-HxCDD	ND	0.0501			ES 1,2,3,6,7,8-HxCDD	77.6	
1,2,3,7,8,9-HxCDD	ND	0.0630			ES 1,2,3,7,8,9-HxCDD	76.1	
1,2,3,4,6,7,8-HpCDD	0.444				ES 1,2,3,4,6,7,8-HpCDD	82.1	
OCDD	2.64				ES OCDD	80.1	
2,3,7,8-TCDF	ND	0.0175			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.0248			ES 1,2,3,7,8-PeCDF	102	
2,3,4,7,8-PeCDF	ND	0.0261			ES 2,3,4,7,8-PeCDF	103	
1,2,3,4,7,8-HxCDF	ND	0.0483			ES 1,2,3,4,7,8-HxCDF	78.2	
1,2,3,6,7,8-HxCDF	ND	0.0424			ES 1,2,3,6,7,8-HxCDF	80.1	
2,3,4,6,7,8-HxCDF	ND	0.0449			ES 2,3,4,6,7,8-HxCDF	79.3	
1,2,3,7,8,9-HxCDF	ND	0.0636			ES 1,2,3,7,8,9-HxCDF	82.2	
1,2,3,4,6,7,8-HpCDF	ND	0.0345			ES 1,2,3,4,6,7,8-HpCDF	82.6	
1,2,3,4,7,8,9-HpCDF	ND	0.0461			ES 1,2,3,4,7,8,9-HpCDF	85.6	
OCDF	ND	0.0804			ES OCDF	82.2	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	93.8	
Total TCDDs	ND	0.0407	ND		CS 12347-PeCDD	93.7	
Total PeCDDs	ND	0.0547	ND		CS 12346-PeCDF	117	
Total HxCDDs	ND	0.0513	ND		CS 123469-HxCDF	103	
Total HpCDDs	0.444		0.967		CS 1234689-HpCDF	94.9	
					AS 1368-TCDD	96.4	
Total TCDFs	ND	0.0175	ND		AS 1368-TCDF	113	
Total PeCDFs	ND	0.0341	ND				
Total HxCDFs	ND	0.0473	ND				
Total HpCDFs	ND	0.0376	ND				
Total PCDD/PCDFs	**3.08**		**3.61**				

P807020-20 (404789-015)						Detailed Results - Method 8290	
Client Details							
Client Sample ID:	P807020-20 (404789-015)		**Client Name:**	**EA Orange**			
Client Project ID:	404789		**Sample Collection Date:**	**20-Jul-18**		**RRFs:**	**CS3 AB**
Lab/Sample Details							
Lab Job #:	**J126**	**Matrix:**	**Soil**	**Date Received:**	**25-Jul-18**		
Lab Sample ID:	**J126_10110_002**	**Weight/Volume:**	**14.9**	**Date Extracted:**	**7/31/18**		
QC Batch #:	**10110**	**Split Factor:**	**1**	**Date Analyzed:**	**06-Aug-18**		
Dilution:	**-**			**Time Analyzed:**	**18:28:15**		

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0350			ES 2,3,7,8-TCDD	90.2	
1,2,3,7,8-PeCDD	ND	0.0484			ES 1,2,3,7,8-PeCDD	88.0	
1,2,3,4,7,8-HxCDD	ND	0.0493			ES 1,2,3,4,7,8-HxCDD	81.6	
1,2,3,6,7,8-HxCDD	ND	0.0528			ES 1,2,3,6,7,8-HxCDD	83.4	
1,2,3,7,8,9-HxCDD	ND	0.0546			ES 1,2,3,7,8,9-HxCDD	81.0	
1,2,3,4,6,7,8-HpCDD	ND	0.0668			ES 1,2,3,4,6,7,8-HpCDD	83.4	
OCDD	ND	0.0840			ES OCDD	83.3	
2,3,7,8-TCDF	ND	0.0227			ES 2,3,7,8-TCDF	99.8	
1,2,3,7,8-PeCDF	ND	0.0271			ES 1,2,3,7,8-PeCDF	98.3	
2,3,4,7,8-PeCDF	ND	0.0295			ES 2,3,4,7,8-PeCDF	97.4	
1,2,3,4,7,8-HxCDF	ND	0.0329			ES 1,2,3,4,7,8-HxCDF	79.1	
1,2,3,6,7,8-HxCDF	ND	0.0293			ES 1,2,3,6,7,8-HxCDF	81.3	
2,3,4,6,7,8-HxCDF	ND	0.0329			ES 2,3,4,6,7,8-HxCDF	83.8	
1,2,3,7,8,9-HxCDF	ND	0.0380			ES 1,2,3,7,8,9-HxCDF	91.2	
1,2,3,4,6,7,8-HpCDF	ND	0.0289			ES 1,2,3,4,6,7,8-HpCDF	85.1	
1,2,3,4,7,8,9-HpCDF	ND	0.0424			ES 1,2,3,4,7,8,9-HpCDF	87.6	
OCDF	ND	0.0588			ES OCDF	84.8	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	97.0	
Total TCDDs	ND	0.0350	ND		CS 12347-PeCDD	98.0	
Total PeCDDs	ND	0.0484	ND		CS 12346-PeCDF	109	
Total HxCDDs	ND	0.0483	ND		CS 123469-HxCDF	99.7	
Total HpCDDs	ND	0.0668	ND		CS 1234689-HpCDF	94.9	
					AS 1368-TCDD	92.9	
Total TCDFs	ND	0.0227	ND		AS 1368-TCDF	104	
Total PeCDFs	ND	0.0380	ND				
Total HxCDFs	ND	0.0317	ND				
Total HpCDFs	ND	0.0316	ND				
Total PCDD/PCDFs	**ND**		**ND**				

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P807020-21 (404789-016)						Detailed Results - Method 8290	
Client Details							
Client Sample ID:	P807020-21 (404789-016)		**Client Name:**	**EA Orange**			
Client Project ID:	404789		**Sample Collection Date:**	**20-Jul-18**		**RRFs:**	**CS3 AB**
Lab/Sample Details							
Lab Job #:	**J126**	**Matrix:**	**Soil**	**Date Received:**	**25-Jul-18**		
Lab Sample ID:	**J126_10110_003**	**Weight/Volume:**	**15.7**	**Date Extracted:**	**7/31/18**		
QC Batch #:	**10110**	**Split Factor:**	**1**	**Date Analyzed:**	**06-Aug-18**		
Dilution:	**-**			**Time Analyzed:**	**19:17:16**		

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0307			ES 2,3,7,8-TCDD	87.8	
1,2,3,7,8-PeCDD	ND	0.0397			ES 1,2,3,7,8-PeCDD	83.6	
1,2,3,4,7,8-HxCDD	ND	0.0314			ES 1,2,3,4,7,8-HxCDD	80.4	
1,2,3,6,7,8-HxCDD	ND	0.0312			ES 1,2,3,6,7,8-HxCDD	79.7	
1,2,3,7,8,9-HxCDD	ND	0.0347			ES 1,2,3,7,8,9-HxCDD	80.8	
1,2,3,4,6,7,8-HpCDD	ND	0.0833			ES 1,2,3,4,6,7,8-HpCDD	82.7	
OCDD	ND	0.0923			ES OCDD	80.5	
2,3,7,8-TCDF	ND	0.0163			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.0168			ES 1,2,3,7,8-PeCDF	102	
2,3,4,7,8-PeCDF	ND	0.0165			ES 2,3,4,7,8-PeCDF	102	
1,2,3,4,7,8-HxCDF	ND	0.0221			ES 1,2,3,4,7,8-HxCDF	79.8	
1,2,3,6,7,8-HxCDF	ND	0.0217			ES 1,2,3,6,7,8-HxCDF	78.8	
2,3,4,6,7,8-HxCDF	ND	0.0211			ES 2,3,4,6,7,8-HxCDF	79.8	
1,2,3,7,8,9-HxCDF	ND	0.0297			ES 1,2,3,7,8,9-HxCDF	83.5	
1,2,3,4,6,7,8-HpCDF	ND	0.0208			ES 1,2,3,4,6,7,8-HpCDF	82.3	
1,2,3,4,7,8,9-HpCDF	ND	0.0293			ES 1,2,3,4,7,8,9-HpCDF	86.3	
OCDF	ND	0.0567			ES OCDF	83.8	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	100	
Total TCDDs	ND	0.0307	ND		CS 12347-PeCDD	98.2	
Total PeCDDs	ND	0.0397	ND		CS 12346-PeCDF	116	
Total HxCDDs	ND	0.0309	ND		CS 123469-HxCDF	97.9	
Total HpCDDs	ND	0.0833	ND		CS 1234689-HpCDF	94.1	
					AS 1368-TCDD	95.8	
Total TCDFs	ND	0.0163	ND		AS 1368-TCDF	112	
Total PeCDFs	ND	0.0161	ND				
Total HxCDFs	ND	0.0237	ND				
Total HpCDFs	ND	0.0225	ND				
Total PCDD/PCDFs	**ND**		**ND**				

P807020-22 (404789-017)						Detailed Results - Method 8290	
Client Details							
Client Sample ID:	P807020-22 (404789-017)		**Client Name:**	**EA Orange**			
Client Project ID:	404789		**Sample Collection Date:**	**20-Jul-18**		**RRFs:**	**CS3 AB**
Lab/Sample Details							
Lab Job #:	**J126**	**Matrix:**	**Soil**	**Date Received:**	**25-Jul-18**		
Lab Sample ID:	**J126_10110_004**	**Weight/Volume:**	**14.5**	**Date Extracted:**	**7/31/18**		
QC Batch #:	**10110**	**Split Factor:**	**1**	**Date Analyzed:**	**06-Aug-18**		
Dilution:	-			**Time Analyzed:**	**20:06:17**		

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0306			ES 2,3,7,8-TCDD	83.3	
1,2,3,7,8-PeCDD	ND	0.0591			ES 1,2,3,7,8-PeCDD	77.9	
1,2,3,4,7,8-HxCDD	ND	0.0474			ES 1,2,3,4,7,8-HxCDD	79.2	
1,2,3,6,7,8-HxCDD	ND	0.0471			ES 1,2,3,6,7,8-HxCDD	76.2	
1,2,3,7,8,9-HxCDD	ND	0.0513			ES 1,2,3,7,8,9-HxCDD	80.2	
1,2,3,4,6,7,8-HpCDD	ND	0.0784			ES 1,2,3,4,6,7,8-HpCDD	79.9	
OCDD	0.913				ES OCDD	77.9	
2,3,7,8-TCDF	ND	0.0167			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.0178			ES 1,2,3,7,8-PeCDF	97.1	
2,3,4,7,8-PeCDF	ND	0.0179			ES 2,3,4,7,8-PeCDF	102	
1,2,3,4,7,8-HxCDF	ND	0.0299			ES 1,2,3,4,7,8-HxCDF	78.9	
1,2,3,6,7,8-HxCDF	ND	0.0278			ES 1,2,3,6,7,8-HxCDF	80.0	
2,3,4,6,7,8-HxCDF	ND	0.0316			ES 2,3,4,6,7,8-HxCDF	79.1	
1,2,3,7,8,9-HxCDF	ND	0.0414			ES 1,2,3,7,8,9-HxCDF	82.6	
1,2,3,4,6,7,8-HpCDF	ND	0.0325			ES 1,2,3,4,6,7,8-HpCDF	81.2	
1,2,3,4,7,8,9-HpCDF	ND	0.0485			ES 1,2,3,4,7,8,9-HpCDF	84.3	
OCDF	ND	0.0684			ES OCDF	77.9	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	98.7	
Total TCDDs	ND	0.0306	ND		CS 12347-PeCDD	96.9	
Total PeCDDs	ND	0.0591	ND		CS 12346-PeCDF	117	
Total HxCDDs	ND	0.0469	ND		CS 123469-HxCDF	103	
Total HpCDDs	ND	0.0784	ND		CS 1234689-HpCDF	95.4	
					AS 1368-TCDD	93.8	
Total TCDFs	ND	0.0167	ND		AS 1368-TCDF	112	
Total PeCDFs	ND	0.0163	ND				
Total HxCDFs	ND	0.0309	ND				
Total HpCDFs	ND	0.0354	ND				
Total PCDD/PCDFs	**0.913**		**0.913**				

P807020-23 (404789-018)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807020-23 (404789-018)	**Client Name:** EA Orange
Client Project ID: 404789	**Sample Collection Date:** 20-Jul-18 **RRFs:** CS3 AB

Lab/Sample Details

Lab Job #:	J126	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J126_10110_005	**Weight/Volume:**	14.0	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	06-Aug-18
Dilution:	-			**Time Analyzed:**	20:55:23

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0344			ES 2,3,7,8-TCDD	94.3	
1,2,3,7,8-PeCDD	ND	0.0527			ES 1,2,3,7,8-PeCDD	90.7	
1,2,3,4,7,8-HxCDD	ND	0.0541			ES 1,2,3,4,7,8-HxCDD	82.7	
1,2,3,6,7,8-HxCDD	ND	0.0528			ES 1,2,3,6,7,8-HxCDD	84.9	
1,2,3,7,8,9-HxCDD	ND	0.0573			ES 1,2,3,7,8,9-HxCDD	86.2	
1,2,3,4,6,7,8-HpCDD	0.38				ES 1,2,3,4,6,7,8-HpCDD	85.6	
OCDD	EMPC		1.46		ES OCDD	82	
2,3,7,8-TCDF	ND	0.0169			ES 2,3,7,8-TCDF	99.1	
1,2,3,7,8-PeCDF	ND	0.0198			ES 1,2,3,7,8-PeCDF	103	
2,3,4,7,8-PeCDF	ND	0.0209			ES 2,3,4,7,8-PeCDF	104	
1,2,3,4,7,8-HxCDF	ND	0.0341			ES 1,2,3,4,7,8-HxCDF	84.3	
1,2,3,6,7,8-HxCDF	ND	0.0316			ES 1,2,3,6,7,8-HxCDF	84.6	
2,3,4,6,7,8-HxCDF	ND	0.0352			ES 2,3,4,6,7,8-HxCDF	86	
1,2,3,7,8,9-HxCDF	ND	0.0418			ES 1,2,3,7,8,9-HxCDF	92.5	
1,2,3,4,6,7,8-HpCDF	ND	0.0306			ES 1,2,3,4,6,7,8-HpCDF	86.9	
1,2,3,4,7,8,9-HpCDF	ND	0.0424			ES 1,2,3,4,7,8,9-HpCDF	91.1	
OCDF	ND	0.0643			ES OCDF	85	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	96.7	
Total TCDDs	ND	0.0344	ND		CS 12347-PeCDD	98.3	
Total PeCDDs	ND	0.0527	ND		CS 12346-PeCDF	106	
Total HxCDDs	ND	0.0520	ND		CS 123469-HxCDF	99	
Total HpCDDs	0.662		0.662		CS 1234689-HpCDF	93.2	
					AS 1368-TCDD	95.3	
Total TCDFs	ND	0.0169	ND		AS 1368-TCDF	103	
Total PeCDFs	ND	0.0201	ND				
Total HxCDFs	ND	0.0344	ND				
Total HpCDFs	ND	0.0332	ND				
Total PCDD/PCDFs	**0.662**		**2.12**				

P807020-24 (404789-019)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807020-24 (404789-019)	**Client Name:** EA Orange
Client Project ID: 404789	**Sample Collection Date:** 20-Jul-18 **RRFs:** CS3 AB

Lab/Sample Details

Lab Job #:	J126	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J126_10110_006	**Weight/Volume:**	14.3	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	06-Aug-18
Dilution:	-			**Time Analyzed:**	21:44:28

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0415			ES 2,3,7,8-TCDD	90.8	
1,2,3,7,8-PeCDD	ND	0.053			ES 1,2,3,7,8-PeCDD	86.5	
1,2,3,4,7,8-HxCDD	ND	0.048			ES 1,2,3,4,7,8-HxCDD	81.3	
1,2,3,6,7,8-HxCDD	ND	0.051			ES 1,2,3,6,7,8-HxCDD	76.6	
1,2,3,7,8,9-HxCDD	ND	0.054			ES 1,2,3,7,8,9-HxCDD	81.8	
1,2,3,4,6,7,8-HpCDD	0.735				ES 1,2,3,4,6,7,8-HpCDD	79.5	
OCDD	EMPC		4.03		ES OCDD	77.7	
2,3,7,8-TCDF	ND	0.025			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.028			ES 1,2,3,7,8-PeCDF	102	
2,3,4,7,8-PeCDF	ND	0.030			ES 2,3,4,7,8-PeCDF	102	
1,2,3,4,7,8-HxCDF	ND	0.038			ES 1,2,3,4,7,8-HxCDF	76.5	
1,2,3,6,7,8-HxCDF	ND	0.033			ES 1,2,3,6,7,8-HxCDF	77.9	
2,3,4,6,7,8-HxCDF	ND	0.033			ES 2,3,4,6,7,8-HxCDF	78.8	
1,2,3,7,8,9-HxCDF	ND	0.047			ES 1,2,3,7,8,9-HxCDF	84.9	
1,2,3,4,6,7,8-HpCDF	ND	0.044			ES 1,2,3,4,6,7,8-HpCDF	80.3	
1,2,3,4,7,8,9-HpCDF	ND	0.065			ES 1,2,3,4,7,8,9-HpCDF	84.2	
OCDF	ND	0.088			ES OCDF	80.4	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	101	
Total TCDDs	ND	0.0415	ND		CS 12347-PeCDD	101	
Total PeCDDs	ND	0.0527	ND		CS 12346-PeCDF	111	
Total HxCDDs	ND	0.0480	ND		CS 123469-HxCDF	100	
Total HpCDDs	1.47		1.47		CS 1234689-HpCDF	91.9	
					AS 1368-TCDD	92.9	
Total TCDFs	ND	0.0249	ND		AS 1368-TCDF	105	
Total PeCDFs	ND	0.0263	ND				
Total HxCDFs	ND	0.0362	ND				
Total HpCDFs	ND	0.0479	ND				
Total PCDD/PCDFs	**1.47**		**5.50**				

P807020-25 (404789-020)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807020-25 (404789-020)	**Client Name:** EA Orange
Client Project ID: 404789	**Sample Collection Date:** 20-Jul-18 **RRFs:** CS3 AB

Lab/Sample Details

Lab Job #:	J126	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J126_10110_007	**Weight/Volume:**	14.3	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	06-Aug-18
Dilution:	-			**Time Analyzed:**	22:33:35

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0347			ES 2,3,7,8-TCDD	93.9	
1,2,3,7,8-PeCDD	ND	0.0386			ES 1,2,3,7,8-PeCDD	88.7	
1,2,3,4,7,8-HxCDD	ND	0.0369			ES 1,2,3,4,7,8-HxCDD	79.8	
1,2,3,6,7,8-HxCDD	ND	0.0391			ES 1,2,3,6,7,8-HxCDD	82.6	
1,2,3,7,8,9-HxCDD	ND	0.0429			ES 1,2,3,7,8,9-HxCDD	83.5	
1,2,3,4,6,7,8-HpCDD	ND	0.0582			ES 1,2,3,4,6,7,8-HpCDD	84.2	
OCDD	ND	0.0849			ES OCDD	79.7	
2,3,7,8-TCDF	ND	0.0297			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.0260			ES 1,2,3,7,8-PeCDF	97.4	
2,3,4,7,8-PeCDF	ND	0.0283			ES 2,3,4,7,8-PeCDF	98.7	
1,2,3,4,7,8-HxCDF	ND	0.0356			ES 1,2,3,4,7,8-HxCDF	80.6	
1,2,3,6,7,8-HxCDF	ND	0.0330			ES 1,2,3,6,7,8-HxCDF	80.9	
2,3,4,6,7,8-HxCDF	ND	0.0328			ES 2,3,4,6,7,8-HxCDF	84.3	
1,2,3,7,8,9-HxCDF	ND	0.0450			ES 1,2,3,7,8,9-HxCDF	86.8	
1,2,3,4,6,7,8-HpCDF	ND	0.0267			ES 1,2,3,4,6,7,8-HpCDF	82.6	
1,2,3,4,7,8,9-HpCDF	ND	0.0385			ES 1,2,3,4,7,8,9-HpCDF	87.3	
OCDF	ND	0.0614			ES OCDF	79.5	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	96.7	
Total TCDDs	ND	0.0347	ND		CS 12347-PeCDD	96.5	
Total PeCDDs	ND	0.0386	ND		CS 12346-PeCDF	101	
Total HxCDDs	ND	0.0353	ND		CS 123469-HxCDF	93	
Total HpCDDs	ND	0.0582	ND		CS 1234689-HpCDF	89.5	
					AS 1368-TCDD	98.5	
Total TCDFs	ND	0.0297	ND		AS 1368-TCDF	103	
Total PeCDFs	ND	0.0164	ND				
Total HxCDFs	ND	0.0358	ND				
Total HpCDFs	ND	0.0289	ND				
Total PCDD/PCDFs	**ND**		**ND**				

P807020-26 (404789-021)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807020-26 (404789-021)	**Client Name:** EA Orange
Client Project ID: 404789	**Sample Collection Date:** 20-Jul-18 **RRFs:** CS3 AB

Lab/Sample Details

Lab Job #:	J126	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J126_10110_008	**Weight/Volume:**	13.8	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	06-Aug-18
Dilution:	-			**Time Analyzed:**	23:22:36

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0377			ES 2,3,7,8-TCDD	88.1	
1,2,3,7,8-PeCDD	ND	0.055			ES 1,2,3,7,8-PeCDD	83.9	
1,2,3,4,7,8-HxCDD	ND	0.047			ES 1,2,3,4,7,8-HxCDD	70.1	
1,2,3,6,7,8-HxCDD	ND	0.048			ES 1,2,3,6,7,8-HxCDD	69	
1,2,3,7,8,9-HxCDD	ND	0.052			ES 1,2,3,7,8,9-HxCDD	70.3	
1,2,3,4,6,7,8-HpCDD	ND	0.070			ES 1,2,3,4,6,7,8-HpCDD	73.6	
OCDD	ND	0.115			ES OCDD	72.6	
2,3,7,8-TCDF	ND	0.021			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.020			ES 1,2,3,7,8-PeCDF	102	
2,3,4,7,8-PeCDF	ND	0.021			ES 2,3,4,7,8-PeCDF	103	
1,2,3,4,7,8-HxCDF	ND	0.033			ES 1,2,3,4,7,8-HxCDF	68.9	
1,2,3,6,7,8-HxCDF	ND	0.031			ES 1,2,3,6,7,8-HxCDF	70.7	
2,3,4,6,7,8-HxCDF	ND	0.031			ES 2,3,4,6,7,8-HxCDF	70.8	
1,2,3,7,8,9-HxCDF	ND	0.040			ES 1,2,3,7,8,9-HxCDF	78.6	
1,2,3,4,6,7,8-HpCDF	ND	0.031			ES 1,2,3,4,6,7,8-HpCDF	74.3	
1,2,3,4,7,8,9-HpCDF	ND	0.047			ES 1,2,3,4,7,8,9-HpCDF	77.8	
OCDF	ND	0.067			ES OCDF	76	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	101	
Total TCDDs	ND	0.0377	ND		CS 12347-PeCDD	103	
Total PeCDDs	ND	0.0546	ND		CS 12346-PeCDF	119	
Total HxCDDs	ND	0.0461	ND		CS 123469-HxCDF	94	
Total HpCDDs	ND	0.0698	ND		CS 1234689-HpCDF	84.6	
					AS 1368-TCDD	97.5	
Total TCDFs	ND	0.0207	ND		AS 1368-TCDF	111	
Total PeCDFs	ND	0.0194	ND				
Total HxCDFs	ND	0.0339	ND				
Total HpCDFs	ND	0.0334	ND				
Total PCDD/PCDFs	**ND**		**ND**				

P807020-27 (404789-022)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807020-27 (404789-022)	**Client Name:** EA Orange
Client Project ID: 404789	**Sample Collection Date:** 20-Jul-18 **RRFs:** CS3 AB

Lab/Sample Details

Lab Job #:	J126	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J126_10110_009	**Weight/Volume:**	15.0	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	07-Aug-18
Dilution:	-			**Time Analyzed:**	0:11:42

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0301			ES 2,3,7,8-TCDD	92.8	
1,2,3,7,8-PeCDD	ND	0.0454			ES 1,2,3,7,8-PeCDD	90.8	
1,2,3,4,7,8-HxCDD	ND	0.0465			ES 1,2,3,4,7,8-HxCDD	80	
1,2,3,6,7,8-HxCDD	ND	0.0478			ES 1,2,3,6,7,8-HxCDD	81	
1,2,3,7,8,9-HxCDD	ND	0.0498			ES 1,2,3,7,8,9-HxCDD	78.3	
1,2,3,4,6,7,8-HpCDD	ND	0.0587			ES 1,2,3,4,6,7,8-HpCDD	82.5	
OCDD	ND	0.0854			ES OCDD	82.6	
2,3,7,8-TCDF	ND	0.0235			ES 2,3,7,8-TCDF	98.9	
1,2,3,7,8-PeCDF	ND	0.0184			ES 1,2,3,7,8-PeCDF	96.9	
2,3,4,7,8-PeCDF	ND	0.0183			ES 2,3,4,7,8-PeCDF	98.6	
1,2,3,4,7,8-HxCDF	ND	0.0242			ES 1,2,3,4,7,8-HxCDF	79.1	
1,2,3,6,7,8-HxCDF	ND	0.0227			ES 1,2,3,6,7,8-HxCDF	81.8	
2,3,4,6,7,8-HxCDF	ND	0.0227			ES 2,3,4,6,7,8-HxCDF	80.9	
1,2,3,7,8,9-HxCDF	ND	0.0320			ES 1,2,3,7,8,9-HxCDF	82.1	
1,2,3,4,6,7,8-HpCDF	ND	0.0294			ES 1,2,3,4,6,7,8-HpCDF	81.1	
1,2,3,4,7,8,9-HpCDF	ND	0.0428			ES 1,2,3,4,7,8,9-HpCDF	86.9	
OCDF	ND	0.0679			ES OCDF	83.6	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	100	
Total TCDDs	ND	0.0301	ND		CS 12347-PeCDD	100	
Total PeCDDs	ND	0.0454	ND		CS 12346-PeCDF	106	
Total HxCDDs	ND	0.0459	ND		CS 123469-HxCDF	96	
Total HpCDDs	ND	0.0587	ND		CS 1234689-HpCDF	88.2	
					AS 1368-TCDD	97.8	
Total TCDFs	ND	0.0235	ND		AS 1368-TCDF	104	
Total PeCDFs	ND	0.0191	ND				
Total HxCDFs	ND	0.0255	ND				
Total HpCDFs	ND	0.0316	ND				
Total PCDD/PCDFs	**ND**		**ND**				

P807019-08 (404811-005)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807019-08 (404811-005)	**Client Name:** EA Orange
Client Project ID: 404811	**Sample Collection Date:** 18-Jul-18 **RRFs:** CS3 CD

Lab/Sample Details

Lab Job #:	J127	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J127_10110_001	**Weight/Volume:**	13.4	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	07-Aug-18
Dilution:	-			**Time Analyzed:**	16:42:40

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0509			ES 2,3,7,8-TCDD	93.9	
1,2,3,7,8-PeCDD	ND	0.111			ES 1,2,3,7,8-PeCDD	87.6	
1,2,3,4,7,8-HxCDD	ND	0.110			ES 1,2,3,4,7,8-HxCDD	83.8	
1,2,3,6,7,8-HxCDD	ND	0.120			ES 1,2,3,6,7,8-HxCDD	84.6	
1,2,3,7,8,9-HxCDD	ND	0.112			ES 1,2,3,7,8,9-HxCDD	86	
1,2,3,4,6,7,8-HpCDD	1.43				ES 1,2,3,4,6,7,8-HpCDD	87.3	
OCDD	9.31				ES OCDD	78.8	
2,3,7,8-TCDF	ND	0.049			ES 2,3,7,8-TCDF	99.6	
1,2,3,7,8-PeCDF	ND	0.066			ES 1,2,3,7,8-PeCDF	111	
2,3,4,7,8-PeCDF	ND	0.073			ES 2,3,4,7,8-PeCDF	102	
1,2,3,4,7,8-HxCDF	ND	0.077			ES 1,2,3,4,7,8-HxCDF	83	
1,2,3,6,7,8-HxCDF	ND	0.069			ES 1,2,3,6,7,8-HxCDF	85.1	
2,3,4,6,7,8-HxCDF	ND	0.077			ES 2,3,4,6,7,8-HxCDF	80.8	
1,2,3,7,8,9-HxCDF	ND	0.088			ES 1,2,3,7,8,9-HxCDF	92.3	
1,2,3,4,6,7,8-HpCDF	ND	0.040			ES 1,2,3,4,6,7,8-HpCDF	89.5	
1,2,3,4,7,8,9-HpCDF	ND	0.057			ES 1,2,3,4,7,8,9-HpCDF	82.8	
OCDF	ND	0.073			ES OCDF	81.1	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	97.7	
Total TCDDs	ND	0.0509	ND		CS 12347-PeCDD	101	
Total PeCDDs	ND	0.111	ND		CS 12346-PeCDF	110	
Total HxCDDs	ND	0.108	1.05		CS 123469-HxCDF	103	
Total HpCDDs	2.75		2.75		CS 1234689-HpCDF	92.7	
					AS 1368-TCDD	98.7	
Total TCDFs	ND	0.0494	ND		AS 1368-TCDF	107	
Total PeCDFs	ND	0.192	ND				
Total HxCDFs	ND	0.0740	ND				
Total HpCDFs	ND	0.0455	ND				
Total PCDD/PCDFs	**12.1**		**13.1**				

P807019-09 (404811-006)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807019-09 (404811-006)	**Client Name:** EA Orange
Client Project ID: 404811	**Sample Collection Date:** 18-Jul-18 **RRFs:** CS3 CD

Lab/Sample Details

Lab Job #:	J127	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J127_10110_002	**Weight/Volume:**	13.5	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	07-Aug-18
Dilution:	-			**Time Analyzed:**	17:31:15

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.064			ES 2,3,7,8-TCDD	87.9	
1,2,3,7,8-PeCDD	ND	0.098			ES 1,2,3,7,8-PeCDD	83.1	
1,2,3,4,7,8-HxCDD	ND	0.132			ES 1,2,3,4,7,8-HxCDD	80.8	
1,2,3,6,7,8-HxCDD	ND	0.127			ES 1,2,3,6,7,8-HxCDD	81.6	
1,2,3,7,8,9-HxCDD	ND	0.157			ES 1,2,3,7,8,9-HxCDD	78.6	
1,2,3,4,6,7,8-HpCDD	ND	0.124			ES 1,2,3,4,6,7,8-HpCDD	79.5	
OCDD	2.17				ES OCDD	69.5	
2,3,7,8-TCDF	ND	0.065			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.041			ES 1,2,3,7,8-PeCDF	108	
2,3,4,7,8-PeCDF	ND	0.046			ES 2,3,4,7,8-PeCDF	103	
1,2,3,4,7,8-HxCDF	ND	0.089			ES 1,2,3,4,7,8-HxCDF	76.7	
1,2,3,6,7,8-HxCDF	ND	0.090			ES 1,2,3,6,7,8-HxCDF	77.4	
2,3,4,6,7,8-HxCDF	ND	0.089			ES 2,3,4,6,7,8-HxCDF	79.8	
1,2,3,7,8,9-HxCDF	ND	0.123			ES 1,2,3,7,8,9-HxCDF	87	
1,2,3,4,6,7,8-HpCDF	ND	0.060			ES 1,2,3,4,6,7,8-HpCDF	81.8	
1,2,3,4,7,8,9-HpCDF	ND	0.091			ES 1,2,3,4,7,8,9-HpCDF	74.2	
OCDF	ND	0.120			ES OCDF	71.2	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	108	
Total TCDDs	ND	0.0640	ND		CS 12347-PeCDD	100	
Total PeCDDs	ND	0.0983	ND		CS 12346-PeCDF	119	
Total HxCDDs	ND	0.132	ND		CS 123469-HxCDF	106	
Total HpCDDs	ND	0.124	ND		CS 1234689-HpCDF	#NUM!	#NUM!
					AS 1368-TCDD	94.6	
Total TCDFs	ND	0.0651	ND		AS 1368-TCDF	112	
Total PeCDFs	ND	0.0314	ND				
Total HxCDFs	ND	0.0931	ND				
Total HpCDFs	ND	0.0680	ND				
Total PCDD/PCDFs	**2.17**		**2.17**				

P807019-10 (404811-007)				Detailed Results - Method 8290			
Client Details							
Client Sample ID:	P807019-10 (404811-007)			**Client Name:**	EA Orange		
Client Project ID:	404811			**Sample Collection Date:**	18-Jul-18	**RRFs:**	CS3 CD
Lab/Sample Details							
Lab Job #:	J127	**Matrix:**	Soil	**Date Received:**	25-Jul-18		
Lab Sample ID:	J127_10110_003	**Weight/Volume:**	13.7	**Date Extracted:**	7/31/18		
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	07-Aug-18		
Dilution:	-			**Time Analyzed:**	18:20:23		

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0716			ES 2,3,7,8-TCDD	88.2	
1,2,3,7,8-PeCDD	ND	0.119			ES 1,2,3,7,8-PeCDD	86.8	
1,2,3,4,7,8-HxCDD	ND	0.173			ES 1,2,3,4,7,8-HxCDD	71.1	
1,2,3,6,7,8-HxCDD	ND	0.162			ES 1,2,3,6,7,8-HxCDD	73.7	
1,2,3,7,8,9-HxCDD	ND	0.156			ES 1,2,3,7,8,9-HxCDD	77.3	
1,2,3,4,6,7,8-HpCDD	6.73				ES 1,2,3,4,6,7,8-HpCDD	77.7	
OCDD	45.7				ES OCDD	66.2	
2,3,7,8-TCDF	ND	0.048			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.046			ES 1,2,3,7,8-PeCDF	108	
2,3,4,7,8-PeCDF	ND	0.052			ES 2,3,4,7,8-PeCDF	101	
1,2,3,4,7,8-HxCDF	ND	0.071			ES 1,2,3,4,7,8-HxCDF	74.2	
1,2,3,6,7,8-HxCDF	ND	0.061			ES 1,2,3,6,7,8-HxCDF	79.7	
2,3,4,6,7,8-HxCDF	ND	0.071			ES 2,3,4,6,7,8-HxCDF	72.4	
1,2,3,7,8,9-HxCDF	ND	0.088			ES 1,2,3,7,8,9-HxCDF	81.1	
1,2,3,4,6,7,8-HpCDF	0.865				ES 1,2,3,4,6,7,8-HpCDF	75.5	
1,2,3,4,7,8,9-HpCDF	ND	0.155			ES 1,2,3,4,7,8,9-HpCDF	73.8	
OCDF	3.63				ES OCDF	67.1	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	108	
Total TCDDs	ND	0.0716	ND		CS 12347-PeCDD	101	
Total PeCDDs	ND	0.119	ND		CS 12346-PeCDF	117	
Total HxCDDs	1.13		4.22		CS 123469-HxCDF	102	
Total HpCDDs	19.3		19.3		CS 1234689-HpCDF	92.3	
					AS 1368-TCDD	102	
Total TCDFs	ND	0.0475	ND		AS 1368-TCDF	115	
Total PeCDFs	ND	0.0237	0.746				
Total HxCDFs	ND	0.0685	1.22				
Total HpCDFs	3.87		3.87				
Total PCDD/PCDFs	**73.6**		**78.7**				

P807019-11 (404811-008)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807019-11 (404811-008)	**Client Name:** EA Orange
Client Project ID: 404811	**Sample Collection Date:** 18-Jul-18 **RRFs:** CS3 CD

Lab/Sample Details

Lab Job #:	J127	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J127_10110_004	**Weight/Volume:**	13.6	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	07-Aug-18
Dilution:	-			**Time Analyzed:**	19:09:26

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0603			ES 2,3,7,8-TCDD	93.1	
1,2,3,7,8-PeCDD	ND	0.112			ES 1,2,3,7,8-PeCDD	88.6	
1,2,3,4,7,8-HxCDD	ND	0.239			ES 1,2,3,4,7,8-HxCDD	70.9	
1,2,3,6,7,8-HxCDD	ND	0.231			ES 1,2,3,6,7,8-HxCDD	74.5	
1,2,3,7,8,9-HxCDD	ND	0.224			ES 1,2,3,7,8,9-HxCDD	72.8	
1,2,3,4,6,7,8-HpCDD	7.76				ES 1,2,3,4,6,7,8-HpCDD	70.9	
OCDD	36.9				ES OCDD	62.8	
2,3,7,8-TCDF	ND	0.061			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.073			ES 1,2,3,7,8-PeCDF	99.2	
2,3,4,7,8-PeCDF	ND	0.076			ES 2,3,4,7,8-PeCDF	99.3	
1,2,3,4,7,8-HxCDF	ND	0.086			ES 1,2,3,4,7,8-HxCDF	69.9	
1,2,3,6,7,8-HxCDF	ND	0.087			ES 1,2,3,6,7,8-HxCDF	68.1	
2,3,4,6,7,8-HxCDF	ND	0.082			ES 2,3,4,6,7,8-HxCDF	68.6	
1,2,3,7,8,9-HxCDF	ND	0.106			ES 1,2,3,7,8,9-HxCDF	77.4	
1,2,3,4,6,7,8-HpCDF	1.36				ES 1,2,3,4,6,7,8-HpCDF	70.9	
1,2,3,4,7,8,9-HpCDF	ND	0.093			ES 1,2,3,4,7,8,9-HpCDF	65.2	
OCDF	ND	0.252			ES OCDF	62.8	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	107	
Total TCDDs	ND	0.0603	ND		CS 12347-PeCDD	101	
Total PeCDDs	ND	0.112	ND		CS 12346-PeCDF	117	
Total HxCDDs	6.43		8.24		CS 123469-HxCDF	92	
Total HpCDDs	14.3		14.3		CS 1234689-HpCDF	83.4	
					AS 1368-TCDD	100	
Total TCDFs	ND	0.0613	ND		AS 1368-TCDF	114	
Total PeCDFs	ND	0.0998	ND				
Total HxCDFs	ND	0.0899	0.879				
Total HpCDFs	1.36		3.56				
Total PCDD/PCDFs	**59.0**		**63.9**				

P807019-12 (404811-009)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807019-12 (404811-009)	**Client Name:** EA Orange
Client Project ID: 404811	**Sample Collection Date:** 18-Jul-18 **RRFs:** CS3 CD

Lab/Sample Details

Lab Job #:	J127	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J127_10110_005	**Weight/Volume:**	13.5	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	07-Aug-18
Dilution:	-			**Time Analyzed:**	19:58:29

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0998			ES 2,3,7,8-TCDD	99.9	
1,2,3,7,8-PeCDD	ND	0.233			ES 1,2,3,7,8-PeCDD	92.8	
1,2,3,4,7,8-HxCDD	ND	0.143			ES 1,2,3,4,7,8-HxCDD	84.4	
1,2,3,6,7,8-HxCDD	EMPC		7.47		ES 1,2,3,6,7,8-HxCDD	81.9	
1,2,3,7,8,9-HxCDD	2.73				ES 1,2,3,7,8,9-HxCDD	87.3	
1,2,3,4,6,7,8-HpCDD	22.6				ES 1,2,3,4,6,7,8-HpCDD	83.5	
OCDD	120				ES OCDD	76	
2,3,7,8-TCDF	ND	0.091			ES 2,3,7,8-TCDF	99	
1,2,3,7,8-PeCDF	ND	0.167			ES 1,2,3,7,8-PeCDF	103	
2,3,4,7,8-PeCDF	ND	0.185			ES 2,3,4,7,8-PeCDF	99.5	
1,2,3,4,7,8-HxCDF	ND	0.095			ES 1,2,3,4,7,8-HxCDF	82.5	
1,2,3,6,7,8-HxCDF	ND	0.091			ES 1,2,3,6,7,8-HxCDF	83.6	
2,3,4,6,7,8-HxCDF	ND	0.094			ES 2,3,4,6,7,8-HxCDF	77.6	
1,2,3,7,8,9-HxCDF	ND	0.121			ES 1,2,3,7,8,9-HxCDF	83.6	
1,2,3,4,6,7,8-HpCDF	3.13				ES 1,2,3,4,6,7,8-HpCDF	80.0	
1,2,3,4,7,8,9-HpCDF	ND	0.118			ES 1,2,3,4,7,8,9-HpCDF	78.3	
OCDF	EMPC		3.69		ES OCDF	63	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	112	
Total TCDDs	1.13		1.13		CS 12347-PeCDD	108	
Total PeCDDs	2.05		3.48		CS 12346-PeCDF	111	
Total HxCDDs	32.5		42.9		CS 123469-HxCDF	108	
Total HpCDDs	46.7		46.7		CS 1234689-HpCDF	99.9	
					AS 1368-TCDD	107	
Total TCDFs	ND	0.0912	0.415		AS 1368-TCDF	108	
Total PeCDFs	ND	0.124	ND				
Total HxCDFs	3.54		3.54				
Total HpCDFs	3.13		8.33				
Total PCDD/PCDFs	**209**		**230**				

P807019-13 (404811-010)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807019-13 (404811-010)	**Client Name:** EA Orange
Client Project ID: 404811	**Sample Collection Date:** 18-Jul-18 **RRFs:** CS3 CD

Lab/Sample Details

Lab Job #:	J127	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J127_10110_006	**Weight/Volume:**	13.7	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	07-Aug-18
Dilution:	-			**Time Analyzed:**	20:47:31

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0611			ES 2,3,7,8-TCDD	94.4	
1,2,3,7,8-PeCDD	ND	0.117			ES 1,2,3,7,8-PeCDD	87.6	
1,2,3,4,7,8-HxCDD	ND	0.108			ES 1,2,3,4,7,8-HxCDD	74.8	
1,2,3,6,7,8-HxCDD	0.925				ES 1,2,3,6,7,8-HxCDD	75.6	
1,2,3,7,8,9-HxCDD	ND	0.107			ES 1,2,3,7,8,9-HxCDD	78.8	
1,2,3,4,6,7,8-HpCDD	7.15				ES 1,2,3,4,6,7,8-HpCDD	79.0	
OCDD	31.8				ES OCDD	95.7	
2,3,7,8-TCDF	ND	0.055			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.053			ES 1,2,3,7,8-PeCDF	102	
2,3,4,7,8-PeCDF	ND	0.054			ES 2,3,4,7,8-PeCDF	97.3	
1,2,3,4,7,8-HxCDF	ND	0.062			ES 1,2,3,4,7,8-HxCDF	74.0	
1,2,3,6,7,8-HxCDF	ND	0.060			ES 1,2,3,6,7,8-HxCDF	75.7	
2,3,4,6,7,8-HxCDF	ND	0.063			ES 2,3,4,6,7,8-HxCDF	78.2	
1,2,3,7,8,9-HxCDF	ND	0.072			ES 1,2,3,7,8,9-HxCDF	90.2	
1,2,3,4,6,7,8-HpCDF	0.354				ES 1,2,3,4,6,7,8-HpCDF	78.1	
1,2,3,4,7,8,9-HpCDF	ND	0.075			ES 1,2,3,4,7,8,9-HpCDF	81.2	
OCDF	ND	0.113			ES OCDF	86.2	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	107	
Total TCDDs	ND	0.0611	ND		CS 12347-PeCDD	102	
Total PeCDDs	ND	0.117	ND		CS 12346-PeCDF	110	
Total HxCDDs	4.92		5.99		CS 123469-HxCDF	95.8	
Total HpCDDs	13.3		13.3		CS 1234689-HpCDF	90.9	
					AS 1368-TCDD	95.7	
Total TCDFs	ND	0.0545	ND		AS 1368-TCDF	101	
Total PeCDFs	ND	0.0256	ND				
Total HxCDFs	0.489		1.01				
Total HpCDFs	0.354		1.28				
Total PCDD/PCDFs	**50.9**		**53.4**				

P807019-14 (404811-011)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807019-14 (404811-011)	**Client Name:** EA Orange
Client Project ID: 404811	**Sample Collection Date:** 18-Jul-18 **RRFs:** CS3 CD

Lab/Sample Details

Lab Job #:	J127	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J127_10110_007	**Weight/Volume:**	12.8	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	07-Aug-18
Dilution:	-			**Time Analyzed:**	21:36:34

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0831			ES 2,3,7,8-TCDD	99.1	
1,2,3,7,8-PeCDD	ND	0.118			ES 1,2,3,7,8-PeCDD	91.1	
1,2,3,4,7,8-HxCDD	ND	0.196			ES 1,2,3,4,7,8-HxCDD	80.6	
1,2,3,6,7,8-HxCDD	1.35				ES 1,2,3,6,7,8-HxCDD	80.8	
1,2,3,7,8,9-HxCDD	ND	0.201			ES 1,2,3,7,8,9-HxCDD	80.1	
1,2,3,4,6,7,8-HpCDD	13.3				ES 1,2,3,4,6,7,8-HpCDD	85.3	
OCDD	94.6				ES OCDD	76.4	
2,3,7,8-TCDF	ND	0.070			ES 2,3,7,8-TCDF	101	
1,2,3,7,8-PeCDF	ND	0.060			ES 1,2,3,7,8-PeCDF	108	
2,3,4,7,8-PeCDF	ND	0.065			ES 2,3,4,7,8-PeCDF	103	
1,2,3,4,7,8-HxCDF	ND	0.140			ES 1,2,3,4,7,8-HxCDF	84	
1,2,3,6,7,8-HxCDF	ND	0.142			ES 1,2,3,6,7,8-HxCDF	81.2	
2,3,4,6,7,8-HxCDF	ND	0.133			ES 2,3,4,6,7,8-HxCDF	86.1	
1,2,3,7,8,9-HxCDF	ND	0.196			ES 1,2,3,7,8,9-HxCDF	82.3	
1,2,3,4,6,7,8-HpCDF	ND	0.285			ES 1,2,3,4,6,7,8-HpCDF	80.9	
1,2,3,4,7,8,9-HpCDF	ND	0.372			ES 1,2,3,4,7,8,9-HpCDF	81.9	
OCDF	ND	0.274			ES OCDF	79.9	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	111	
Total TCDDs	ND	0.0831	ND		CS 12347-PeCDD	104	
Total PeCDDs	ND	0.118	0.328		CS 12346-PeCDF	117	
Total HxCDDs	9.05		9.05		CS 123469-HxCDF	107	
Total HpCDDs	30.4		30.4		CS 1234689-HpCDF	95.6	
					AS 1368-TCDD	103	
Total TCDFs	1.01		1.01		AS 1368-TCDF	110	
Total PeCDFs	ND	0.0296	1.74				
Total HxCDFs	0.946		2.28				
Total HpCDFs	2.07		2.07				
Total PCDD/PCDFs	**138**		**141**				

P807019-15 (404811-012)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807019-15 (404811-012)	**Client Name:** EA Orange
Client Project ID: 404811	**Sample Collection Date:** 18-Jul-18 **RRFs:** CS3 CD

Lab/Sample Details

Lab Job #:	J127	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J127_10110_008	**Weight/Volume:**	14.5	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	07-Aug-18
Dilution:	-			**Time Analyzed:**	22:25:37

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0505			ES 2,3,7,8-TCDD	85.8	
1,2,3,7,8-PeCDD	ND	0.065			ES 1,2,3,7,8-PeCDD	81.8	
1,2,3,4,7,8-HxCDD	ND	0.109			ES 1,2,3,4,7,8-HxCDD	76.6	
1,2,3,6,7,8-HxCDD	ND	0.108			ES 1,2,3,6,7,8-HxCDD	76.9	
1,2,3,7,8,9-HxCDD	ND	0.096			ES 1,2,3,7,8,9-HxCDD	81.5	
1,2,3,4,6,7,8-HpCDD	ND	0.098			ES 1,2,3,4,6,7,8-HpCDD	78.7	
OCDD	EMPC		2.82		ES OCDD	76.5	
2,3,7,8-TCDF	ND	0.024			ES 2,3,7,8-TCDF	101	
1,2,3,7,8-PeCDF	ND	0.042			ES 1,2,3,7,8-PeCDF	105	
2,3,4,7,8-PeCDF	ND	0.050			ES 2,3,4,7,8-PeCDF	98.7	
1,2,3,4,7,8-HxCDF	ND	0.054			ES 1,2,3,4,7,8-HxCDF	74.3	
1,2,3,6,7,8-HxCDF	ND	0.051			ES 1,2,3,6,7,8-HxCDF	75.7	
2,3,4,6,7,8-HxCDF	ND	0.054			ES 2,3,4,6,7,8-HxCDF	76.7	
1,2,3,7,8,9-HxCDF	ND	0.071			ES 1,2,3,7,8,9-HxCDF	80.1	
1,2,3,4,6,7,8-HpCDF	ND	0.070			ES 1,2,3,4,6,7,8-HpCDF	80.6	
1,2,3,4,7,8,9-HpCDF	ND	0.090			ES 1,2,3,4,7,8,9-HpCDF	78.6	
OCDF	ND	0.090			ES OCDF	77.7	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	107	
Total TCDDs	ND	0.0505	ND		CS 12347-PeCDD	98.4	
Total PeCDDs	ND	0.0650	ND		CS 12346-PeCDF	121	
Total HxCDDs	ND	0.106	ND		CS 123469-HxCDF	103	
Total HpCDDs	0.323		0.323		CS 1234689-HpCDF	95.9	
					AS 1368-TCDD	99.3	
Total TCDFs	ND	0.0237	ND		AS 1368-TCDF	116	
Total PeCDFs	ND	0.0502	ND				
Total HxCDFs	ND	0.0544	ND				
Total HpCDFs	ND	0.0777	ND				
Total PCDD/PCDFs	**0.323**		**3.14**				

P807019-16 (404811-013)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807019-16 (404811-013)	**Client Name:** EA Orange
Client Project ID: 404811	**Sample Collection Date:** 18-Jul-18 **RRFs:** CS3 CD

Lab/Sample Details

Lab Job #:	J127	**Matrix:**	Soil	**Date Received:**	25-Jul-18
Lab Sample ID:	J127_10110_009	**Weight/Volume:**	14.5	**Date Extracted:**	7/31/18
QC Batch #:	10110	**Split Factor:**	1	**Date Analyzed:**	07-Aug-18
Dilution:	-			**Time Analyzed:**	23:14:40

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0415			ES 2,3,7,8-TCDD	85.7	
1,2,3,7,8-PeCDD	ND	0.083			ES 1,2,3,7,8-PeCDD	77.4	
1,2,3,4,7,8-HxCDD	ND	0.160			ES 1,2,3,4,7,8-HxCDD	75.6	
1,2,3,6,7,8-HxCDD	ND	0.156			ES 1,2,3,6,7,8-HxCDD	78.6	
1,2,3,7,8,9-HxCDD	ND	0.171			ES 1,2,3,7,8,9-HxCDD	79.5	
1,2,3,4,6,7,8-HpCDD	ND	0.079			ES 1,2,3,4,6,7,8-HpCDD	82.8	
OCDD	3.65				ES OCDD	76.8	
2,3,7,8-TCDF	ND	0.036			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.039			ES 1,2,3,7,8-PeCDF	106	
2,3,4,7,8-PeCDF	ND	0.046			ES 2,3,4,7,8-PeCDF	99.3	
1,2,3,4,7,8-HxCDF	ND	0.050			ES 1,2,3,4,7,8-HxCDF	74.9	
1,2,3,6,7,8-HxCDF	ND	0.046			ES 1,2,3,6,7,8-HxCDF	79.6	
2,3,4,6,7,8-HxCDF	ND	0.052			ES 2,3,4,6,7,8-HxCDF	74.3	
1,2,3,7,8,9-HxCDF	ND	0.059			ES 1,2,3,7,8,9-HxCDF	85.4	
1,2,3,4,6,7,8-HpCDF	ND	0.034			ES 1,2,3,4,6,7,8-HpCDF	82.3	
1,2,3,4,7,8,9-HpCDF	ND	0.052			ES 1,2,3,4,7,8,9-HpCDF	82.0	
OCDF	ND	0.093			ES OCDF	81.4	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	106	
Total TCDDs	ND	0.0415	ND		CS 12347-PeCDD	98.6	
Total PeCDDs	ND	0.0831	ND		CS 12346-PeCDF	132	V
Total HxCDDs	ND	0.154	ND		CS 123469-HxCDF	113	
Total HpCDDs	ND	0.0791	1.88		CS 1234689-HpCDF	107	
					AS 1368-TCDD	101	
Total TCDFs	ND	0.0363	ND		AS 1368-TCDF	127	
Total PeCDFs	ND	0.0804	ND				
Total HxCDFs	ND	0.0501	ND				
Total HpCDFs	ND	0.0375	ND				
Total PCDD/PCDFs	**3.65**		**5.53**				

Performance Analytical Laboratories, Inc.

ELAP 2960

July 24, 2018

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Aqua Mansa

Work Order: P807003

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/12/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 10

Qualifiers and Definitions 19

Chain of Custody PDF 20

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807003-05	MAP-SG-3-5'		Solid	07/11/2018	07/12/2018
P807003-06	MAP-SG-3-15'		Solid	07/11/2018	07/12/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SG-3-5' **P807003-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	98.0%			60-140	07/21/2018	EPA 8015B (M)	
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020)							
Acetone	ND	µg/Kg	1	16	07/23/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	40	07/23/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	16	07/23/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SG-3-5' (Continued) **P807003-05 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	8.1	07/23/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	16	07/23/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	8.1	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SG-3-5' (Continued) **P807003-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
Propionitrile	ND	µg/Kg	1	16	07/23/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	20	07/23/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	6.4	07/23/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.81	07/23/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.6	07/23/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.4	07/23/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	103%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	93.1%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	112%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	99.1%			60-140	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SG-3-15' **P807003-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C23-C24	**2.55**	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C28-C33	**17.3**	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
C34-C40	**14.9**	mg/kg	1	2.50	07/21/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	102%			60-140	07/21/2018	EPA 8015B (M)	
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0018)							
Acetone	ND	µg/Kg	1	19	07/20/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	47	07/20/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.7	07/20/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	19	07/20/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.7	07/20/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.7	07/20/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.7	07/20/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SG-3-15' (Continued) **P807003-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0018) (Continued)							
4-Chlorotoluene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.7	07/20/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.7	07/20/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.7	07/20/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	9.4	07/20/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	19	07/20/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SG-3-15' (Continued) **P807003-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0018) (Continued)							
Naphthalene	ND	µg/Kg	1	9.4	07/20/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	19	07/20/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	23	07/20/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	7.5	07/20/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.94	07/20/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.8	07/20/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	102%			60-140	07/20/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	96.1%			60-140	07/20/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	114%			60-140	07/20/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	98.4%			60-140	07/20/2018	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0013										
Blank (B8G0013-BLK1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.09			mg/kg	2.00		104	60-140		
LCS (B8G0013-BS1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	46.0		2.50	mg/kg	50.0		91.9	70-130		
Surrogate: n-Octacosane (c28)	2.09			mg/kg	2.00		104	60-140		
LCS Dup (B8G0013-BSD1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	47.1		2.50	mg/kg	50.0		94.3	70-130	2.52	20
Surrogate: n-Octacosane (c28)	2.05			mg/kg	2.00		102	60-140		
Matrix Spike (B8G0013-MS1)		**Source: P807011-03**		Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	43.7		2.50	mg/kg	50.0	2.81	81.8	70-130		
Surrogate: n-Octacosane (c28)	2.00			mg/kg	2.00		99.8	60-140		
Matrix Spike Dup (B8G0013-MSD1)		**Source: P807011-03**		Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	44.5		2.50	mg/kg	50.0	2.81	83.4	70-130	1.72	20
Surrogate: n-Octacosane (c28)	2.02			mg/kg	2.00		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0018										
Blank (B8G0018-BLK1)				Prepared & Analyzed: 07/20/2018						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0018 (Continued)										
Blank (B8G0018-BLK1)				Prepared & Analyzed: 07/20/2018						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		8.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	47			µg/Kg	50.0		94.5	60-140		
Surrogate: 1,2-Dichloroethane-d4	53			µg/Kg	50.0		106	60-140		
Surrogate: Toluene-d8	51			µg/Kg	50.0		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0018 (Continued)										
LCS (B8G0018-BS1)				Prepared & Analyzed: 07/20/2018						
Benzene	51		1.0	µg/Kg	50.0		102	70-130		
Bromobenzene	49		1.0	µg/Kg	50.0		98.8	70-130		
Bromodichloromethane	51		1.0	µg/Kg	50.0		102	70-130		
Bromoform	48		1.0	µg/Kg	50.0		95.7	70-130		
Chlorobenzene	49		1.0	µg/Kg	50.0		98.4	70-130		
Chloroethane	51		5.0	µg/Kg	50.0		102	70-130		
Chloroform	49		1.0	µg/Kg	50.0		98.8	70-130		
4-Chlorotoluene	52		1.0	µg/Kg	50.0		103	70-130		
Dibromomethane	51		1.0	µg/Kg	50.0		102	70-130		
1,2-Dichlorobenzene	50		1.0	µg/Kg	50.0		99.4	70-130		
1,1-Dichloroethene	52		1.0	µg/Kg	50.0		104	70-130		
1,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.0	70-130		
2,2-Dichloropropane	53		1.0	µg/Kg	50.0		106	70-130		
1,1-Dichloropropene	50		1.0	µg/Kg	50.0		100	70-130		
Diethyl Ether	47		5.0	µg/Kg	50.0		94.9	70-130		
Diisopropyl Ether (DIPE)	51		1.0	µg/Kg	50.0		102	70-130		
Ethylbenzene	53		1.0	µg/Kg	50.0		106	70-130		
Hexachloro-1,3-Butadiene	51		1.0	µg/Kg	50.0		103	70-130		
Methylene Chloride	52		10	µg/Kg	50.0		104	70-130		
Methyl-t-Butyl Ether (MTBE)	50		1.0	µg/Kg	50.0		99.9	70-130		
Naphthalene	49		10	µg/Kg	50.0		98.8	70-130		
Styrene	53		1.0	µg/Kg	50.0		107	70-130		
tert-Butylbenzene	51		1.0	µg/Kg	50.0		102	70-130		
Tetrachloroethene	50		1.0	µg/Kg	50.0		99.5	70-130		
Toluene	52		1.0	µg/Kg	50.0		104	70-130		
1,2,3-Trichlorobenzene	51		1.0	µg/Kg	50.0		102	70-130		
Trichloroethene	50		1.0	µg/Kg	50.0		99.7	70-130		
1,3,5-Trimethylbenzene	54		1.0	µg/Kg	50.0		107	70-130		
Vinyl Chloride	49		1.0	µg/Kg	50.0		98.5	70-130		
Surrogate: Dibromofluoromethane	52			µg/Kg	50.0		104	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		99.2	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0018 (Continued)										
LCS Dup (B8G0018-BSD1)				Prepared & Analyzed: 07/20/2018						
Benzene	50		1.0	µg/Kg	50.0		101	70-130	1.17	20
Bromobenzene	49		1.0	µg/Kg	50.0		98.7	70-130	0.122	20
Bromodichloromethane	50		1.0	µg/Kg	50.0		101	70-130	0.967	20
Bromoform	49		1.0	µg/Kg	50.0		97.6	70-130	1.99	20
Chlorobenzene	49		1.0	µg/Kg	50.0		97.6	70-130	0.796	20
Chloroethane	48		5.0	µg/Kg	50.0		95.5	70-130	6.80	20
Chloroform	49		1.0	µg/Kg	50.0		97.4	70-130	1.51	20
4-Chlorotoluene	52		1.0	µg/Kg	50.0		103	70-130	0.0387	20
Dibromomethane	50		1.0	µg/Kg	50.0		99.9	70-130	2.10	20
1,2-Dichlorobenzene	50		1.0	µg/Kg	50.0		99.1	70-130	0.343	20
1,1-Dichloroethene	51		1.0	µg/Kg	50.0		102	70-130	1.57	20
1,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.9	70-130	0.905	20
2,2-Dichloropropane	52		1.0	µg/Kg	50.0		103	70-130	2.75	20
1,1-Dichloropropene	50		1.0	µg/Kg	50.0		101	70-130	0.338	20
Diethyl Ether	48		5.0	µg/Kg	50.0		95.2	70-130	0.274	20
Diisopropyl Ether (DIPE)	50		1.0	µg/Kg	50.0		101	70-130	1.06	20
Ethylbenzene	52		1.0	µg/Kg	50.0		104	70-130	1.64	20
Hexachloro-1,3-Butadiene	43		1.0	µg/Kg	50.0		86.9	70-130	16.6	20
Methylene Chloride	52		10	µg/Kg	50.0		104	70-130	0.0960	20
Methyl-t-Butyl Ether (MTBE)	50		1.0	µg/Kg	50.0		100	70-130	0.460	20
Naphthalene	50		10	µg/Kg	50.0		99.2	70-130	0.444	20
Styrene	53		1.0	µg/Kg	50.0		105	70-130	1.25	20
tert-Butylbenzene	48		1.0	µg/Kg	50.0		96.2	70-130	5.62	20
Tetrachloroethene	48		1.0	µg/Kg	50.0		96.9	70-130	2.67	20
Toluene	51		1.0	µg/Kg	50.0		103	70-130	0.756	20
1,2,3-Trichlorobenzene	48		1.0	µg/Kg	50.0		95.1	70-130	7.16	20
Trichloroethene	50		1.0	µg/Kg	50.0		101	70-130	1.06	20
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		98.9	70-130	8.20	20
Vinyl Chloride	48		1.0	µg/Kg	50.0		96.5	70-130	2.09	20
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		99.7	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		101	60-140		
Surrogate: Toluene-d8	51			µg/Kg	50.0		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020										
Blank (B8G0020-BLK1)				Prepared & Analyzed: 07/23/2018						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020 (Continued)										
Blank (B8G0020-BLK1)				Prepared & Analyzed: 07/23/2018						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		8.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	49			µg/Kg	50.0		97.8	60-140		
Surrogate: 4-Bromofluorobenzene	47			µg/Kg	50.0		93.9	60-140		
Surrogate: 1,2-Dichloroethane-d4	53			µg/Kg	50.0		105	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		97.9	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020 (Continued)										
LCS (B8G0020-BS1)				Prepared & Analyzed: 07/23/2018						
Benzene	50		1.0	µg/Kg	50.0		99.6	70-130		
Bromobenzene	50		1.0	µg/Kg	50.0		99.0	70-130		
Bromodichloromethane	50		1.0	µg/Kg	50.0		99.3	70-130		
Bromoform	47		1.0	µg/Kg	50.0		94.9	70-130		
Chlorobenzene	48		1.0	µg/Kg	50.0		95.9	70-130		
Chloroethane	48		5.0	µg/Kg	50.0		96.0	70-130		
Chloroform	48		1.0	µg/Kg	50.0		96.0	70-130		
4-Chlorotoluene	50		1.0	µg/Kg	50.0		100	70-130		
Dibromomethane	49		1.0	µg/Kg	50.0		97.5	70-130		
1,2-Dichlorobenzene	49		1.0	µg/Kg	50.0		97.5	70-130		
1,1-Dichloroethene	50		1.0	µg/Kg	50.0		99.3	70-130		
1,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.3	70-130		
2,2-Dichloropropane	48		1.0	µg/Kg	50.0		96.9	70-130		
1,1-Dichloropropene	47		1.0	µg/Kg	50.0		94.6	70-130		
Diethyl Ether	48		5.0	µg/Kg	50.0		96.0	70-130		
Diisopropyl Ether (DIPE)	50		1.0	µg/Kg	50.0		99.3	70-130		
Ethylbenzene	51		1.0	µg/Kg	50.0		101	70-130		
Hexachloro-1,3-Butadiene	44		1.0	µg/Kg	50.0		88.2	70-130		
Methylene Chloride	55		10	µg/Kg	50.0		109	70-130		
Methyl-t-Butyl Ether (MTBE)	48		1.0	µg/Kg	50.0		96.6	70-130		
Naphthalene	47		10	µg/Kg	50.0		93.9	70-130		
Styrene	52		1.0	µg/Kg	50.0		104	70-130		
tert-Butylbenzene	47		1.0	µg/Kg	50.0		93.7	70-130		
Tetrachloroethene	47		1.0	µg/Kg	50.0		93.8	70-130		
Toluene	50		1.0	µg/Kg	50.0		100	70-130		
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		98.3	70-130		
Trichloroethene	48		1.0	µg/Kg	50.0		96.8	70-130		
1,3,5-Trimethylbenzene	52		1.0	µg/Kg	50.0		103	70-130		
Vinyl Chloride	45		1.0	µg/Kg	50.0		90.6	70-130		
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		99.7	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		99.7	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		100	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020 (Continued)										
LCS Dup (B8G0020-BSD1)				Prepared & Analyzed: 07/23/2018						
Benzene	47		1.0	µg/Kg	50.0		94.5	70-130	5.28	20
Bromobenzene	49		1.0	µg/Kg	50.0		98.0	70-130	0.995	20
Bromodichloromethane	50		1.0	µg/Kg	50.0		99.4	70-130	0.0805	20
Bromoform	47		1.0	µg/Kg	50.0		94.7	70-130	0.232	20
Chlorobenzene	47		1.0	µg/Kg	50.0		93.7	70-130	2.28	20
Chloroethane	49		5.0	µg/Kg	50.0		98.3	70-130	2.35	20
Chloroform	48		1.0	µg/Kg	50.0		95.1	70-130	0.942	20
4-Chlorotoluene	49		1.0	µg/Kg	50.0		98.0	70-130	2.20	20
Dibromomethane	49		1.0	µg/Kg	50.0		98.1	70-130	0.634	20
1,2-Dichlorobenzene	48		1.0	µg/Kg	50.0		95.7	70-130	1.86	20
1,1-Dichloroethene	47		1.0	µg/Kg	50.0		94.4	70-130	5.10	20
1,2-Dichloropropane	48		1.0	µg/Kg	50.0		96.1	70-130	3.28	20
2,2-Dichloropropane	46		1.0	µg/Kg	50.0		92.6	70-130	4.54	20
1,1-Dichloropropene	44		1.0	µg/Kg	50.0		88.7	70-130	6.44	20
Diethyl Ether	48		5.0	µg/Kg	50.0		95.6	70-130	0.459	20
Diisopropyl Ether (DIPE)	48		1.0	µg/Kg	50.0		96.8	70-130	2.57	20
Ethylbenzene	48		1.0	µg/Kg	50.0		95.7	70-130	5.59	20
Hexachloro-1,3-Butadiene	44		1.0	µg/Kg	50.0		87.6	70-130	0.683	20
Methylene Chloride	53		10	µg/Kg	50.0		106	70-130	3.23	20
Methyl-t-Butyl Ether (MTBE)	48		1.0	µg/Kg	50.0		96.2	70-130	0.373	20
Naphthalene	47		10	µg/Kg	50.0		93.0	70-130	0.984	20
Styrene	51		1.0	µg/Kg	50.0		102	70-130	1.61	20
tert-Butylbenzene	46		1.0	µg/Kg	50.0		91.5	70-130	2.42	20
Tetrachloroethene	45		1.0	µg/Kg	50.0		89.4	70-130	4.80	20
Toluene	49		1.0	µg/Kg	50.0		97.5	70-130	3.01	20
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		97.6	70-130	0.653	20
Trichloroethene	46		1.0	µg/Kg	50.0		92.9	70-130	4.18	20
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		98.0	70-130	5.23	20
Vinyl Chloride	46		1.0	µg/Kg	50.0		92.3	70-130	1.82	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		100	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.2	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL WO#: P807003

Client Name	Langan
Address	515 South Flower St #2860 Los Angeles CA 90071
Project Manager	Brad McCardell (Neil) Shukla
Email	bmccardell@langan.com
Phone	909 771-8277
Project Name/Number	Agua Mansa 721013501
P.O. Number	721013501
Sampled By	Kathleen Co

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: VOCs 8260B	TPH 8015M
1	MAP-SG-2-5'	7/11	855	S	VOAs ; 8 oz. jar	X	X
2	MAP-SG-2-15'	7/11	910	S	VOAs ; 8 oz. jar	X	X
3	MAP-SG-1-5'	7/11	1135	S	VOAs ; 8 oz. jar	X	X
4	MAP-SG-1-15'	7/11	1145	S	VOAs ; 8 oz. jar	X	X
5	MAP-SG-3-5'	7/11	1410	S	VOAs ; 8 oz. jar	X	X
6	MAP-SG-3-15'	7/11	1425	S	VOAs ; 8 oz. jar	X	X
7	MAP-SG-4-5'	7/11	1520	S	VOAs ; 8 oz. jar	X	X
8	MAP-SG-4-15'	7/11	1530	S	VOAs ; 8 oz. jar	X	X
9							
10							

G-2810

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	STD 5 day	RUSH 24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	1.4°C MV	

RELINQUISHED BY
Signature:
Print: Eric Albeyer
Company: Langan
DATE: 7/12/18
TIME: 1000

RECEIVED BY
Signature:
Print: Neil Shukla
Company: Langan
DATE: 7/12/18
TIME: 10:00

RELINQUISHED BY
Signature:
Print: Neil Shukla
Company: Langan
DATE: 7/12/18
TIME: 1120

RECEIVED BY
Signature:
Print: M Valenzuela
Company: PAL
DATE: 7/12/18
TIME: 1110

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807003

Cooler 1 OF 1

Client Langan

Date Received: 7/12/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	1.4 °C	0.0	1.4	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X MW	X	
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

NOT ALL 5035 VOA's were labeled.

Initials	Date	Initials	Date
MW	7/12/18		

Performance Analytical Laboratories, Inc.

ELAP 2960

July 25, 2018

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Aqua Mansa

Work Order: P807005

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/13/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 22

Qualifiers and Definitions 29

Chain of Custody PDFs 30

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807005-01	VL-LT-2-6"		Solid	07/12/2018	07/13/2018
P807005-02	VL-LT-2-1'		Solid	07/12/2018	07/13/2018
P807005-03	VL-LT-2-5'		Solid	07/12/2018	07/13/2018
P807005-04	SW-4-6"		Solid	07/12/2018	07/13/2018
P807005-05	SW-4-1'		Solid	07/12/2018	07/13/2018
P807005-06	SW-4-5'		Solid	07/12/2018	07/13/2018
P807005-07	SW-5-6"		Solid	07/12/2018	07/13/2018
P807005-08	SW-5-1'		Solid	07/12/2018	07/13/2018
P807005-09	SW-5-5'		Solid	07/12/2018	07/13/2018
P807005-10	SW-6-6"		Solid	07/12/2018	07/13/2018
P807005-11	SW-6-1'		Solid	07/12/2018	07/13/2018
P807005-12	SW-6-5'		Solid	07/12/2018	07/13/2018
P807005-13	VL-LT-3-6"		Solid	07/12/2018	07/13/2018
P807005-14	VL-LT-3-1'		Solid	07/12/2018	07/13/2018
P807005-15	VL-LT-3-5'		Solid	07/12/2018	07/13/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VL-LT-2-6" **P807005-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	**5.76**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**1.53**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**56.6**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**14.2**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**6.26**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**17.1**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**13.2**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**8.88**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**24.2**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**64.7**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0014)							
pH	**6.59**	pH Units	1		07/19/2018	EPA 9045	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**22.8**	°C	1		07/19/2018	EPA 9045	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VL-LT-2-1' **P807005-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	ND	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**4.81**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**46.7**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**13.6**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**6.38**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**12.2**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**14.3**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**9.12**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**5.82**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**25.3**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**44.2**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0014)							
pH	**7.11**	pH Units	1		07/19/2018	EPA 9045	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**22.8**	°C	1		07/19/2018	EPA 9045	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VL-LT-2-5' **P807005-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	**3.17**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**4.35**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**33.8**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**11.8**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**6.51**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**10.5**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**8.83**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**8.62**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**7.83**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**22.9**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**35.4**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0014)							
pH	**6.99**	pH Units	1		07/19/2018	EPA 9045	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**22.8**	°C	1		07/19/2018	EPA 9045	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-4-6" **P807005-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	ND	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**53.4**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**13.8**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**5.51**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**16.4**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**13.0**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**8.09**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**3.42**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**22.2**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**64.1**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0014)							
pH	**7.69**	pH Units	1		07/19/2018	EPA 9045	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.1**	°C	1		07/19/2018	EPA 9045	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-4-1' **P807005-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	**4.02**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**2.26**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**44.1**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**13.4**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**5.53**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**11.1**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**12.2**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**9.22**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**9.27**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**23.6**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**42.0**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0014)							
pH	**7.57**	pH Units	1		07/19/2018	EPA 9045	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.1**	°C	1		07/19/2018	EPA 9045	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-4-5' **P807005-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	ND	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**2.88**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**29.0**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**9.96**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**4.80**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**8.64**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**4.73**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**7.60**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**18.8**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**26.7**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0014)							
pH	**7.74**	pH Units	1		07/19/2018	EPA 9045	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.2**	°C	1		07/19/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-5-6" **P807005-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	**3.74**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**5.18**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**39.1**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**13.1**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**5.41**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**10.7**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**13.7**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**8.41**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**14.6**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**25.0**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**41.8**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C28-C33	**8.35**	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C34-C40	**3.80**	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	89.9%			60-140	07/17/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-5-6" (Continued) **P807005-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193522) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0014)							
pH	**7.46**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	66%			50-150	07/24/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.1**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-5-1' **P807005-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	**7.31**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**30.7**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**10.7**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**4.89**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**8.24**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**8.85**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**7.30**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**10.4**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**20.3**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**30.7**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C28-C33	**5.39**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C34-C40	**2.57**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	90.3%			60-140	07/18/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-5-1' (Continued) **P807005-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193522) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0014)							
pH	**7.80**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	73%			50-150	07/24/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.1**	°C	1		07/19/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-5-5' **P807005-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	**4.91**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**5.60**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**35.7**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**12.6**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**5.66**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**9.40**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**7.52**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**9.13**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**7.83**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**23.4**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**30.7**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C28-C33	**4.77**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C34-C40	**2.85**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	92.3%			60-140	07/18/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-5-5' (Continued) **P807005-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193522) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0014)							
pH	**7.92**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	81%			50-150	07/24/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.1**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-6-6" **P807005-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	**6.50**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**3.10**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**62.4**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**16.9**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**6.68**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**21.1**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**14.5**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**10.8**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**12.2**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**26.6**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**69.7**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0014)							
pH	**7.33**	pH Units	1		07/19/2018	EPA 9045	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.1**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-6-1' **P807005-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	ND	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**3.37**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**49.4**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**15.0**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**6.42**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**13.7**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**7.98**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**9.85**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**10.3**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**25.8**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**35.8**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0015)							
pH	**7.64**	pH Units	1		07/19/2018	EPA 9045	
Temperature for pH (Batch ID: B8G0015)							
Temperature	**23.0**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-6-5' **P807005-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	**6.22**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**4.15**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**39.6**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**12.9**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**5.72**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**11.8**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**4.30**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**10.2**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**23.2**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**27.4**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0015)							
pH	**7.76**	pH Units	1		07/19/2018	EPA 9045	
Temperature for pH (Batch ID: B8G0015)							
Temperature	**23.0**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VL-LT-3-6" **P807005-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	**4.22**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**4.94**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**82.8**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**21.6**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**8.53**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**23.5**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**20.2**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**13.5**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**31.0**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**87.2**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0015)							
pH	**7.17**	pH Units	1		07/19/2018	EPA 9045	
Temperature for pH (Batch ID: B8G0015)							
Temperature	**23.1**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VL-LT-3-1' **P807005-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	**3.76**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**8.94**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**77.9**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**20.6**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**8.77**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**17.8**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**18.8**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**14.7**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**6.62**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**31.1**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**56.1**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0015)							
pH	**7.47**	pH Units	1		07/19/2018	EPA 9045	
Temperature for pH (Batch ID: B8G0015)							
Temperature	**23.1**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VL-LT-3-5' **P807005-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193447)							
Antimony	**7.03**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**8.66**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**58.2**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**18.9**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**8.61**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**15.0**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**6.79**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**14.6**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**6.99**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**26.1**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**38.5**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193522)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/19/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193524)							
Mercury	ND	mg/Kg	1	0.14	07/20/2018	EPA 7471A	
pH by 9045 (Batch ID: B8G0015)							
pH	**7.52**	pH Units	1		07/19/2018	EPA 9045	
Temperature for pH (Batch ID: B8G0015)							
Temperature	**23.0**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193447										
LCS (QC1193447LCS1)		**Source: NA**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
Selenium	89.5		3	mg/Kg	100	NA	90	80-120		
Antimony	101		3	mg/Kg	100	NA	101	80-120		
Arsenic	90.1		1	mg/Kg	100	NA	90	80-120		
Barium	95.6		1	mg/Kg	100	NA	96	80-120		
Beryllium	89.6		0.5	mg/Kg	100	NA	90	80-120		
Cadmium	96.7		0.5	mg/Kg	100	NA	97	80-120		
Chromium	94.5		1	mg/Kg	100	NA	95	80-120		
Cobalt	106		0.5	mg/Kg	100	NA	106	80-120		
Copper	99.0		1	mg/Kg	100	NA	99	80-120		
Lead	98.0		1	mg/Kg	100	NA	98	80-120		
Nickel	95.2		1.5	mg/Kg	100	NA	95	80-120		
Silver	110		0.5	mg/Kg	100	NA	110	80-120		
Thallium	91.8		3	mg/Kg	100	NA	92	80-120		
Vanadium	93.8		0.5	mg/Kg	100	NA	94	80-120		
Zinc	110		5	mg/Kg	100	NA	110	80-120		
Molybdenum	85.3		1	mg/Kg	100	NA	85	80-120		
Method Blank (QC1193447MB1)		**Source: NA**		Prepared: 07/18/2018 Analyzed: 07/20/2018						
Copper	ND		1	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Vanadium	ND		0.5	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193447 (Continued)										
MS (QC1193447MS1)		**Source: NA**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
Barium	266		1	mg/Kg	100	166	100	75-125		
Thallium	86.3		3	mg/Kg	100	2.99	83	75-125		
Antimony	48.1	M	3	mg/Kg	100	4.10	44	75-125		
Cadmium	94.4		0.5	mg/Kg	100	ND	94	75-125		
Chromium	119		1	mg/Kg	100	23.2	96	75-125		
Cobalt	112		0.5	mg/Kg	100	15.6	96	75-125		
Copper	164		1	mg/Kg	100	40.2	124	75-125		
Lead	106		1	mg/Kg	100	22.3	84	75-125		
Molybdenum	102		1	mg/Kg	100	2.27	100	75-125		
Nickel	113		1.5	mg/Kg	100	21.0	92	75-125		
Selenium	107		3	mg/Kg	100	ND	107	75-125		
Silver	116		0.5	mg/Kg	100	ND	116	75-125		
Beryllium	89.5		0.5	mg/Kg	100	ND	90	75-125		
Vanadium	162		0.5	mg/Kg	100	61.4	101	75-125		
Arsenic	95.2		1	mg/Kg	100	3.60	92	75-125		
Zinc	226		5	mg/Kg	100	133	93	75-125		
MSD (QC1193447MSD1)		**Source: NA**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
Nickel	117		1.5	mg/Kg	100	21.0	96	75-125	3.5	20
Vanadium	163		0.5	mg/Kg	100	61.4	102	75-125	0.6	20
Thallium	90.5		3	mg/Kg	100	2.99	88	75-125	4.8	20
Silver	117		0.5	mg/Kg	100	ND	117	75-125	0.9	20
Selenium	110		3	mg/Kg	100	ND	110	75-125	2.8	20
Zinc	235		5	mg/Kg	100	133	102	75-125	3.9	20
Molybdenum	106		1	mg/Kg	100	2.27	104	75-125	3.8	20
Lead	116		1	mg/Kg	100	22.3	94	75-125	9	20
Arsenic	100		1	mg/Kg	100	3.60	96	75-125	4.9	20
Antimony	56.9	M	3	mg/Kg	100	4.10	53	75-125	16.8	20
Copper	162		1	mg/Kg	100	40.2	122	75-125	1.2	20
Barium	267		1	mg/Kg	100	166	101	75-125	0.4	20
Beryllium	92.5		0.5	mg/Kg	100	ND	93	75-125	3.3	20
Cadmium	98.8		0.5	mg/Kg	100	ND	99	75-125	4.6	20
Chromium	120		1	mg/Kg	100	23.2	97	75-125	0.8	20
Cobalt	113		0.5	mg/Kg	100	15.6	97	75-125	0.9	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0012										
Blank (B8G0012-BLK1)				Prepared: 07/16/2018 Analyzed: 07/17/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.00			mg/kg	2.00		99.8	60-140		
LCS (B8G0012-BS1)				Prepared: 07/16/2018 Analyzed: 07/17/2018						
Diesel	46.7		2.50	mg/kg	50.0		93.3	70-130		
Surrogate: n-Octacosane (c28)	1.99			mg/kg	2.00		99.3	60-140		
LCS Dup (B8G0012-BSD1)				Prepared: 07/16/2018 Analyzed: 07/17/2018						
Diesel	46.1		2.50	mg/kg	50.0		92.2	70-130	1.26	20
Surrogate: n-Octacosane (c28)	1.92			mg/kg	2.00		95.8	60-140		
Matrix Spike (B8G0012-MS1)		**Source: P807007-01**		Prepared: 07/16/2018 Analyzed: 07/17/2018						
Diesel	55.9		2.50	mg/kg	50.0	13.8	84.2	70-130		
Surrogate: n-Octacosane (c28)	1.74			mg/kg	2.00		87.1	60-140		
Matrix Spike Dup (B8G0012-MSD1)		**Source: P807007-01**		Prepared: 07/16/2018 Analyzed: 07/17/2018						
Diesel	60.1		2.50	mg/kg	50.0	13.8	92.8	70-130	7.40	20
Surrogate: n-Octacosane (c28)	1.70			mg/kg	2.00		84.8	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193522										
Duplicate (QC1193522DUP1)		**Source: NA**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
Hexavalent Chromium	ND		400	ug/Kg		ND		-		20
LCS (QC1193522LCS1)		**Source: NA**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
Hexavalent Chromium	36400		400	ug/Kg	40000	NA	91	80-120		
Method Blank (QC1193522MB1)		**Source: NA**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
Hexavalent Chromium	ND		400	ug/Kg		NA		-		
MS (QC1193522MS1)		**Source: NA**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
Hexavalent Chromium	39300		400	ug/Kg	40000	ND	98	75-125		
Hexavalent Chromium	39700		400	ug/Kg	40000	ND	99	75-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193524										
LCS (QC1193524LCS1)		**Source: NA**		Prepared & Analyzed: 07/20/2018						
Mercury	0.84		0.14	mg/Kg	0.83	NA	101	80-120		
Method Blank (QC1193524MB1)		**Source: NA**		Prepared & Analyzed: 07/20/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193524MS1)		**Source: NA**		Prepared & Analyzed: 07/20/2018						
Mercury	0.84		0.14	mg/Kg	0.83	0.07	93	75-125		
MSD (QC1193524MSD1)		**Source: NA**		Prepared & Analyzed: 07/20/2018						
Mercury	0.21	M, D	0.14	mg/Kg	0.83	0.07	17	75-125	120	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

pH by 9045

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0014										
Duplicate (B8G0014-DUP1)		**Source: P807007-01**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
pH	8.34			pH Units		8.29			0.601	20
Batch: B8G0015										
Duplicate (B8G0015-DUP1)		**Source: P807007-03**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
pH	7.72			pH Units		8.18			5.79	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Polychlorinated Biphenyls_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193639										
LCS (QC1193639LCS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1016	560		50	ug/Kg	500	NA	112	70-130		
PCB-1260	520		50	ug/Kg	500	NA	104	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	42.9			ug/Kg	50	NA	86	50-150		
Method Blank (QC1193639MB1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1221	ND		50	ug/Kg		NA		-		
PCB-1254	ND		50	ug/Kg		NA		-		
PCB-1016	ND		50	ug/Kg		NA		-		
PCB-1242	ND		50	ug/Kg		NA		-		
PCB-1248	ND		50	ug/Kg		NA		-		
PCB-1260	ND		50	ug/Kg		NA		-		
PCB-1262	ND		50	ug/Kg		NA		-		
PCB-1268	ND		50	ug/Kg		NA		-		
PCB-1232	ND		50	ug/Kg		NA		-		
Surrogate: Decachlorobiphenyl DCB (SUR)	24.8	S		ug/Kg	50	NA	50	50-150		
MS (QC1193639MS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1016	570		50	ug/Kg	500	ND	114	70-130		
PCB-1260	510		50	ug/Kg	500	ND	102	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	41.5			ug/Kg	50	NA	83	50-150		
MSD (QC1193639MSD1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1260	390	D	50	ug/Kg	500	ND	78	70-130	26.7	20
PCB-1016	440	D	50	ug/Kg	500	ND	88	70-130	25.7	20
Surrogate: Decachlorobiphenyl DCB (SUR)	29.8			ug/Kg	50	NA	60	50-150		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Aqua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
D	RPD was not within control limits. The sample data was reported without further clarification.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P807005

Client Name	Langan
Address	515 South Flower Street Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa 721013501
P.O. Number	721013501
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Title 22 Metals 6010/7000	CrVI EPA Method 7199	TPH-carbon chain 8015	PCB's EPA 8082	Dioxins EPA 1613	pH
1	VL-LT-2-6"	7/12	0910	S	8 oz. jar	X	X			X	
2	VL-LT-2-pH-6"	7/12	0920	S	8 oz. jar						X
3	VL-LT-2-1'	7/12	0935	S	8 oz. jar	X	X			X	
4	VL-LT-2-pH-1'	7/12	0935	S							X
5	VL-LT-2-5'	7/12	0945	S		X	X			X	
6	VL-LT-2-pH-5'	7/12	0945	S							X
7	SW-4-6"	7/12	1025	S		X	X			X	
8	SW-4-pH-6"	7/12	1025	S							X
9	SW-4-1'	7/12	1120	S		X	X			X	
10	SW-4-pH-1'	7/12	1120	S							X

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	(STD) 5 day	RUSH 24	48	72
EDD Required - Circle one:	Yes	No		
Type of EDD:				
Reciept Temp./ Initials: (Temp recorded is not corrected)	3.6°C MV			

RELINQUISHED BY		
Signature:	Brad McCardell	DATE: 7/13/18
Print:	Brad A. McCardell	
Company:	Langan	TIME: 1045

RECEIVED BY		
Signature:	MValenzuela	DATE: 7/13/18
Print:	M Valenzuela	
Company:	PAL	TIME: 1045

RELINQUISHED BY		
Signature:		DATE:
Print:		
Company:		TIME:

RECEIVED BY		
Signature:		DATE:
Print:		
Company:		TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)

**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)

**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-2841

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 2 of 3

PAL WO#: P807005

Client Name	Langan
Address	515 South Flower Street Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	7210135O1
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Title 22 Metals 6010/7000	Cr VI EPA 7199	TPH-carbonchain 8015	PCBs EPA 8082	Dioxins EPA 1613	pH
1	SW-4-5'	7/12	1125	S	8oz. jar	X	X			X	
2	SW-4-pH-5'	7/12	1125	S	8oz. jar						X
3	SW-5-6"	7/12	1300	S		X	X	X	X	X	
4	SW-5-pH-6"	7/12	1300	S							X
5	SW-5-1'	7/12	1355	S		X	X	X	X	X	
6	SW-5-pH-1'	7/12	1355	S							X
7	SW-5-5'	7/12	1400	S		X	X	X	X	X	
8	SW-5-pH-5'	7/12	1400	S							X
9	SW-6-6"	7/12	1430	S		X	X			X	
10	SW-6-pH-6"	7/12	1430	S							X

REQUESTED ANALYSIS

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes / No
Type of EDD:	
Reciept Temp./ Initials: (Temp recorded is not corrected)	

RELINQUISHED BY
Signature: [signature]
Print: Brad A. McCardell
Company: Langan
DATE: 7/13/18
TIME: 1045

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/13/18
TIME: 1045

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-2842

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 3 of 3

PAL WO#: P807065

Client Name	Langan
Address	515 South Flower Street Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Co

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: Title 22 Metals 6010/7000	CrVI EPA 7199	TPH - carbon chain 8015	PCBs EPA 8082	Dioxins EPA 1613	pH
1	SW-6-1'	7/12	1515	S	8oz. jar	X	X			X	
2	SW-6-pH-1'	7/12	1515	S							X
3	SW-6-5'	7/12	1520	S		X	X			X	
4	SW-6-pH-5'	7/12	1520	S							X
5	VL-LT-3-6"	7/12	1550	S		X	X			X	
6	VL-LT-3-pH-6"	7/12	1550	S							X
7	VL-LT-3-1'	7/12	1625	S		X	X			X	
8	VL-LT-3-pH-1'	7/12	1625	S							X
9	VL-LT-3-5'	7/12	1630	S		X	X			X	
10	VL-LT-3-pH-5'	7/12	1630	S							X

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	(STD 5 day)	RUSH 24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY

Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/13/18
TIME: 1045

RECEIVED BY

Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 7/13/18
TIME: 1045

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)

**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)

**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-2843

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807005

Cooler 1 OF 1

Client Lenagen

Date Received: 7/13/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	3.6	0.0	3.6	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	☒	☐	☐
All samples listed on COC(s) are present	☒	☐	☐
All sample info on containers are consistent with sample info on COC(s)	☒	☐	☐
Correct containers for analyses requested	☒	☐	☐
Sufficient volume for analyses requested	☒	☐	☐
Proper preservation chemical(s) noted on COC and/or sample container	☒	☐	☐
All samples received within method holding time	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm	☐	☐	☒

NOTES

Initials	Date	Initials	Date
MJ	7/13/18		

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

4045666

Work Order ID: P807005

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P807005-01 Matrix:Solid Sampled:07/12/2018 09:10			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807005-02 Matrix:Solid Sampled:07/12/2018 09:35			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/13/18	1440	[signature]	7-13-18	2:40
[signature]	7-13-18	3:36	[signature]	07/13/18	1536

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807005

Analysis	TAT	Due	Comments
Sample ID: P807005-03 Matrix: Solid Sampled: 07/12/2018 09:45			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807005-04 Matrix: Solid Sampled: 07/12/2018 10:25			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807005-05 Matrix: Solid Sampled: 07/12/2018 11:20			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	7/13/18	1440	TRAO TRAN	7-13-18	2:40
TRAO TRAN	7-13-18	3:36	[signature]	07/13/18	1536

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807005

Analysis	TAT	Due	Comments
Sample ID: P807005-06 **Matrix:Solid** **Sampled:07/12/2018 11:25**			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807005-07 **Matrix:Solid** **Sampled:07/12/2018 13:00**			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
S_PCB 8082	5	07/20/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807005-08 **Matrix:Solid** **Sampled:07/12/2018 13:55**			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
S_PCB 8082	5	07/20/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/13/18	1440	[signature]	7-13-18	2:40
[signature]	7-13-18	3:36	[signature]	07/13/18	1536

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807005

Analysis	TAT	Due	Comments
Sample ID: P807005-09 Matrix:Solid Sampled:07/12/2018 14:00			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
S_PCB 8082	5	07/20/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807005-10 Matrix:Solid Sampled:07/12/2018 14:30			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807005-11 Matrix:Solid Sampled:07/12/2018 15:15			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/13/18	1440	[signature]	7-13-18	2:40
[signature]	7-13-18	2:36	[signature]	07/13/18	1536

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807005

Analysis	TAT	Due	Comments
Sample ID: P807005-12 Matrix: Solid Sampled: 07/12/2018 15:20			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807005-13 Matrix: Solid Sampled: 07/12/2018 15:50			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807005-14 Matrix: Solid Sampled: 07/12/2018 16:25			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	7/12/18	1440	TRAO TRAN	7-13-18	2:40
TRAO TRAN	7-13-18	3:36	Ralph Adler	07/13/18	1536

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807005

Analysis	TAT	Due	Comments
Sample ID: P807005-15 **Matrix: Solid** **Sampled: 07/12/2018 16:30**			
S_Dioxin (17 Congeners)	5	07/20/2018 15:00	
S_Hexavalent Chromium 7199	5	07/20/2018 15:00	
S_Mercury 7471	5	07/20/2018 15:00	
S_Metals 6010B Title 22	5	07/20/2018 15:00	

Containers Supplied:
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)

Released By	Date	Time	Received By	Date	Time
[signature]	7/13/18	1440	[signature]	7-13-18	2:40
[signature]	7-13-18	3:36	[signature]	07/13/18	1536

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: P807005

Date Received: 7/13/18 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 1.8 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.0 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 7/13/18

Performance Analytical Laboratories, Inc.

ELAP 2960

July 23, 2018

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Agua Mansa

Work Order: P807007

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/14/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 24

Qualifiers and Definitions 34

Chain of Custody PDFs 35

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807007-01	SW-3-1'		Solid	07/13/2018	07/14/2018
P807007-02	SW-3-5'		Solid	07/13/2018	07/14/2018
P807007-03	SW-11-1'		Solid	07/13/2018	07/14/2018
P807007-04	SW-11-5'		Solid	07/13/2018	07/14/2018
P807007-05	SW-20-1'		Solid	07/13/2018	07/14/2018
P807007-06	SW-20-5'		Solid	07/13/2018	07/14/2018
P807007-07	SW-12-1'		Solid	07/13/2018	07/14/2018
P807007-08	SW-12-5'		Solid	07/13/2018	07/14/2018
P807007-09	SW-17-1'		Solid	07/13/2018	07/14/2018
P807007-10	SW-17-5'		Solid	07/13/2018	07/14/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-3-1' **P807007-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C23-C24	**2.93**	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C25-C27	**3.18**	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C28-C33	**33.0**	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
C34-C40	**59.9**	mg/kg	1	2.48	07/17/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	87.9%			60-140	07/17/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193526)							
Mercury	ND	mg/Kg	1	0.14	07/23/2018	EPA 7471A	
Metals, Title 22 _Subcontract (Batch ID: QC1193473)							
Antimony	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**3.39**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**65.1**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/20/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**20.4**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Cobalt	**5.75**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**13.7**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**17.6**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**7.64**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-3-1' (Continued) **P807007-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 _Subcontract (Batch ID: QC1193473) (Continued)							
Selenium	**5.30**	mg/Kg	1	3	07/20/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**27.3**	mg/Kg	1	0.5	07/20/2018	EPA 6010B	
Zinc	**57.7**	mg/Kg	1	5	07/19/2018	EPA 6010B	
pH by 9045 (Batch ID: B8G0014)							
pH	**8.29**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	51%			50-150	07/20/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.4**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-3-5' **P807007-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C28-C33	**4.29**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C34-C40	**4.09**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	91.3%			60-140	07/18/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193526)							
Mercury	ND	mg/Kg	1	0.14	07/23/2018	EPA 7471A	
Metals, Title 22 _Subcontract (Batch ID: QC1193473)							
Antimony	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**2.13**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**50.9**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/20/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**13.6**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Cobalt	**6.74**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**10.9**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**6.80**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**7.54**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**6.74**	mg/Kg	1	3	07/20/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-3-5' (Continued) **P807007-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 _Subcontract (Batch ID: QC1193473) (Continued)							
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**28.5**	mg/Kg	1	0.5	07/20/2018	EPA 6010B	
Zinc	**33.7**	mg/Kg	1	5	07/19/2018	EPA 6010B	
pH by 9045 (Batch ID: B8G0014)							
pH	**8.46**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	97%			50-150	07/20/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.3**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-11-1' **P807007-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C28-C33	**8.95**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C34-C40	**4.55**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	88.6%			60-140	07/18/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193526)							
Mercury	ND	mg/Kg	1	0.14	07/23/2018	EPA 7471A	
Metals, Title 22 _Subcontract (Batch ID: QC1193473)							
Antimony	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**40.6**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/20/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**12.5**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Cobalt	**5.31**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**9.69**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**11.1**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**8.03**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**12.0**	mg/Kg	1	3	07/20/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-11-1' (Continued) **P807007-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 _Subcontract (Batch ID: QC1193473) (Continued)							
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**26.0**	mg/Kg	1	0.5	07/20/2018	EPA 6010B	
Zinc	**31.8**	mg/Kg	1	5	07/19/2018	EPA 6010B	
pH by 9045 (Batch ID: B8G0015)							
pH	**8.18**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	87%			50-150	07/20/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0015)							
Temperature	**23.5**	°C	1		07/19/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-11-5' **P807007-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C28-C33	**4.18**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C34-C40	**3.28**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	108%			60-140	07/18/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193526)							
Mercury	ND	mg/Kg	1	0.14	07/23/2018	EPA 7471A	
Metals, Title 22 _Subcontract (Batch ID: QC1193473)							
Antimony	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**5.02**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**38.9**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/20/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**14.1**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Cobalt	**6.09**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**10.4**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**5.76**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**8.58**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**6.06**	mg/Kg	1	3	07/20/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-11-5' (Continued) **P807007-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 _Subcontract (Batch ID: QC1193473) (Continued)							
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**26.4**	mg/Kg	1	0.5	07/20/2018	EPA 6010B	
Zinc	**32.5**	mg/Kg	1	5	07/19/2018	EPA 6010B	
pH by 9045 (Batch ID: B8G0014)							
pH	**8.18**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	73%			50-150	07/20/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.4**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-20-1' **P807007-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	96.3%			60-140	07/18/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193526)							
Mercury	ND	mg/Kg	1	0.14	07/23/2018	EPA 7471A	
Metals, Title 22 _Subcontract (Batch ID: QC1193473)							
Antimony	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**7.01**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**51.5**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/20/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**13.9**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Cobalt	**6.64**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**9.88**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**5.89**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**8.28**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**3.48**	mg/Kg	1	3	07/20/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-20-1' (Continued) **P807007-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 _Subcontract (Batch ID: QC1193473) (Continued)							
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**27.0**	mg/Kg	1	0.5	07/20/2018	EPA 6010B	
Zinc	**38.0**	mg/Kg	1	5	07/19/2018	EPA 6010B	
pH by 9045 (Batch ID: B8G0014)							
pH	**7.83**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	100%			50-150	07/20/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.5**	°C	1		07/19/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-20-5' **P807007-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	102%			60-140	07/18/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193526)							
Mercury	ND	mg/Kg	1	0.14	07/23/2018	EPA 7471A	
Metals, Title 22 _Subcontract (Batch ID: QC1193473)							
Antimony	ND	mg/Kg	1	3	07/20/2018	EPA 6010B	
Arsenic	**6.58**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Barium	**32.9**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/20/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**10.6**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Cobalt	**5.58**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**10.5**	mg/Kg	1	1	07/20/2018	EPA 6010B	
Lead	**6.64**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/20/2018	EPA 6010B	
Nickel	**6.42**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	**5.88**	mg/Kg	1	3	07/20/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-20-5' (Continued) **P807007-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 _Subcontract (Batch ID: QC1193473) (Continued)							
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**23.1**	mg/Kg	1	0.5	07/20/2018	EPA 6010B	
Zinc	**29.8**	mg/Kg	1	5	07/19/2018	EPA 6010B	
pH by 9045 (Batch ID: B8G0014)							
pH	**7.74**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	55%			50-150	07/20/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.3**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-12-1' **P807007-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	3.75	07/18/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	3.75	07/18/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	3.75	07/18/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	3.75	07/18/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	3.75	07/18/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	3.75	07/18/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	3.75	07/18/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	3.75	07/18/2018	EPA 8015B (M)	
C23-C24	**6.13**	mg/kg	1	3.75	07/18/2018	EPA 8015B (M)	
C25-C27	**5.42**	mg/kg	1	3.75	07/18/2018	EPA 8015B (M)	
C28-C33	**40.2**	mg/kg	1	3.75	07/18/2018	EPA 8015B (M)	
C34-C40	**33.5**	mg/kg	1	3.75	07/18/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	106%			60-140	07/18/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193526)							
Mercury	ND	mg/Kg	1	0.14	07/23/2018	EPA 7471A	
Metals, Title 22 _Subcontract (Batch ID: QC1193473)							
Antimony	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**10.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**74.9**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**21.6**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**8.08**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**17.2**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Lead	**16.5**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	**2.70**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Nickel	**15.9**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-12-1' (Continued) **P807007-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 _Subcontract (Batch ID: QC1193473) (Continued)							
Selenium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**33.5**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**43.3**	mg/Kg	1	5	07/19/2018	EPA 6010B	
pH by 9045 (Batch ID: B8G0014)							
pH	**7.96**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	100%			50-150	07/20/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.1**	°C	1		07/19/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-12-5' **P807007-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C28-C33	**4.94**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C34-C40	**2.65**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	99.6%			60-140	07/18/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193526)							
Mercury	ND	mg/Kg	1	0.14	07/23/2018	EPA 7471A	
Metals, Title 22 _Subcontract (Batch ID: QC1193473)							
Antimony	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**9.18**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**52.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**17.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**7.10**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**10.6**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Lead	**5.88**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	**1.42**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Nickel	**10.5**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-12-5' (Continued) **P807007-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 _Subcontract (Batch ID: QC1193473) (Continued)							
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**30.2**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**45.4**	mg/Kg	1	5	07/19/2018	EPA 6010B	
pH by 9045 (Batch ID: B8G0014)							
pH	**8.42**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	102%			50-150	07/20/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.1**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-17-1' **P807007-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	5.01	07/21/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	5.01	07/21/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	5.01	07/21/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	5.01	07/21/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	5.01	07/21/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	5.01	07/21/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	5.01	07/21/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	5.01	07/21/2018	EPA 8015B (M)	
C23-C24	**7.60**	mg/kg	1	5.01	07/21/2018	EPA 8015B (M)	
C25-C27	**6.28**	mg/kg	1	5.01	07/21/2018	EPA 8015B (M)	
C28-C33	**64.9**	mg/kg	1	5.01	07/21/2018	EPA 8015B (M)	
C34-C40	**65.4**	mg/kg	1	5.01	07/21/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	108%			60-140	07/21/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193477)							
Mercury	ND	mg/Kg	1	0.14	07/19/2018	EPA 7471A	
Metals, Title 22 _Subcontract (Batch ID: QC1193474)							
Antimony	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Arsenic	**3.15**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Barium	**35.1**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**10.5**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**4.48**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**9.17**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Lead	**5.88**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	**2.48**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Nickel	**7.98**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-17-1' (Continued) **P807007-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 _Subcontract (Batch ID: QC1193474) (Continued)							
Selenium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	L
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**18.1**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**24.7**	mg/Kg	1	5	07/19/2018	EPA 6010B	
pH by 9045 (Batch ID: B8G0014)							
pH	**8.63**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	93%			50-150	07/20/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.3**	°C	1		07/19/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-17-5' **P807007-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C28-C33	**6.09**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C34-C40	**5.30**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	96.7%			60-140	07/18/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193607)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/20/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193477)							
Mercury	ND	mg/Kg	1	0.14	07/19/2018	EPA 7471A	
Metals, Title 22 _Subcontract (Batch ID: QC1193474)							
Antimony	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Arsenic	**4.25**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Barium	**38.0**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**12.6**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**5.72**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**7.81**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Lead	**2.92**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/19/2018	EPA 6010B	
Nickel	**9.45**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	L

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-17-5' (Continued) **P807007-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 _Subcontract (Batch ID: QC1193474) (Continued)							
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**22.4**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**23.6**	mg/Kg	1	5	07/19/2018	EPA 6010B	
pH by 9045 (Batch ID: B8G0014)							
pH	**9.12**	pH Units	1		07/19/2018	EPA 9045	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193476)							
PCB-1016	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/20/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	89%			50-150	07/20/2018	EPA 8082	
Temperature for pH (Batch ID: B8G0014)							
Temperature	**23.4**	°C	1		07/19/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0012										
Blank (B8G0012-BLK1)				Prepared: 07/16/2018 Analyzed: 07/17/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.00			mg/kg	2.00		99.8	60-140		
LCS (B8G0012-BS1)				Prepared: 07/16/2018 Analyzed: 07/17/2018						
Diesel	46.7		2.50	mg/kg	50.0		93.3	70-130		
Surrogate: n-Octacosane (c28)	1.99			mg/kg	2.00		99.3	60-140		
LCS Dup (B8G0012-BSD1)				Prepared: 07/16/2018 Analyzed: 07/17/2018						
Diesel	46.1		2.50	mg/kg	50.0		92.2	70-130	1.26	20
Surrogate: n-Octacosane (c28)	1.92			mg/kg	2.00		95.8	60-140		
Matrix Spike (B8G0012-MS1)		**Source: P807007-01**		Prepared: 07/16/2018 Analyzed: 07/17/2018						
Diesel	55.9		2.50	mg/kg	50.0	13.8	84.2	70-130		
Surrogate: n-Octacosane (c28)	1.74			mg/kg	2.00		87.1	60-140		
Matrix Spike Dup (B8G0012-MSD1)		**Source: P807007-01**		Prepared: 07/16/2018 Analyzed: 07/17/2018						
Diesel	60.1		2.50	mg/kg	50.0	13.8	92.8	70-130	7.40	20
Surrogate: n-Octacosane (c28)	1.70			mg/kg	2.00		84.8	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0013										
Blank (B8G0013-BLK1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.09			mg/kg	2.00		104	60-140		
LCS (B8G0013-BS1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	46.0		2.50	mg/kg	50.0		91.9	70-130		
Surrogate: n-Octacosane (c28)	2.09			mg/kg	2.00		104	60-140		
LCS Dup (B8G0013-BSD1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	47.1		2.50	mg/kg	50.0		94.3	70-130	2.52	20
Surrogate: n-Octacosane (c28)	2.05			mg/kg	2.00		102	60-140		
Matrix Spike (B8G0013-MS1)		**Source: P807011-03**		Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	43.7		2.50	mg/kg	50.0	2.81	81.8	70-130		
Surrogate: n-Octacosane (c28)	2.00			mg/kg	2.00		99.8	60-140		
Matrix Spike Dup (B8G0013-MSD1)		**Source: P807011-03**		Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	44.5		2.50	mg/kg	50.0	2.81	83.4	70-130	1.72	20
Surrogate: n-Octacosane (c28)	2.02			mg/kg	2.00		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193607										
Duplicate (QC1193607DUP1)		**Source: NA**		Prepared & Analyzed: 07/23/2018						
Hexavalent Chromium	ND	D	400	ug/Kg	0	ND		-	0	20
LCS (QC1193607LCS1)		**Source: NA**		Prepared & Analyzed: 07/23/2018						
Hexavalent Chromium	40400		400	ug/Kg	40000	NA	101	80-120	0	0
Method Blank (QC1193607MB1)		**Source: NA**		Prepared & Analyzed: 07/23/2018						
Hexavalent Chromium	ND		400	ug/Kg		NA		-		
MS (QC1193607MS2)		**Source: NA**		Prepared & Analyzed: 07/23/2018						
Hexavalent Chromium	42700		400	ug/Kg	40000	ND	106	75-125	0	0
Hexavalent Chromium	39200		400	ug/Kg	40000	ND	97	75-125	0	0

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193477										
LCS (QC1193477LCS1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
Mercury	0.91		0.14	mg/Kg	0.83	NA	110	80-120	0	0
Method Blank (QC1193477MB1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193477MS1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
Mercury	0.85		0.14	mg/Kg	0.83	ND	102	75-125	0	0
MSD (QC1193477MSD1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
Mercury	0.87		0.14	mg/Kg	0.83	ND	105	75-125	2.3	20
Batch: QC1193526										
LCS (QC1193526LCS1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Mercury	0.85		0.14	mg/Kg	0.83	NA	102	80-120	0	0
Method Blank (QC1193526MB1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193526MS1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Mercury	0.87		0.14	mg/Kg	0.83	ND	105	75-125	0	0
MSD (QC1193526MSD1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Mercury	0.84		0.14	mg/Kg	0.83	ND	101	75-125	3.5	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals, Title 22 _Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193473										
LCS (QC1193473LCS1)		**Source: NA**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
Vanadium	96.0		0.5	mg/Kg	100	NA	96	80-120	0	0
Selenium	89.9		3	mg/Kg	100	NA	90	80-120	0	0
Thallium	93.6		3	mg/Kg	100	NA	94	80-120	0	0
Silver	114		0.5	mg/Kg	100	NA	114	80-120	0	0
Zinc	105		5	mg/Kg	100	NA	105	80-120	0	0
Nickel	96.3		1.5	mg/Kg	100	NA	96	80-120	0	0
Molybdenum	104		1	mg/Kg	100	NA	104	80-120	0	0
Antimony	103		3	mg/Kg	100	NA	103	80-120	0	0
Arsenic	94.1		1	mg/Kg	100	NA	94	80-120	0	0
Barium	98.5		1	mg/Kg	100	NA	99	80-120	0	0
Beryllium	90.6		0.5	mg/Kg	100	NA	91	80-120	0	0
Cadmium	98.0		0.5	mg/Kg	100	NA	98	80-120	0	0
Chromium	97.6		1	mg/Kg	100	NA	98	80-120	0	0
Cobalt	106		0.5	mg/Kg	100	NA	106	80-120	0	0
Copper	101		1	mg/Kg	100	NA	101	80-120	0	0
Lead	99.1		1	mg/Kg	100	NA	99	80-120	0	0
Method Blank (QC1193473BLK1)		**Source: NA**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
Silver	ND		0.5	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Copper	ND		1	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Vanadium	ND		0.5	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals, Title 22 _Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193473 (Continued)										
MS (QC1193473MS1)		**Source: NA**			Prepared: 07/18/2018 Analyzed: 07/19/2018					
Chromium	102		1	mg/Kg	100	8.78	93	75-125	0	0
Cadmium	89.7		0.5	mg/Kg	100	ND	90	75-125	0	0
Beryllium	87.9		0.5	mg/Kg	100	ND	88	75-125	0	0
Barium	136		1	mg/Kg	100	36.0	100	75-125	0	0
Arsenic	104		1	mg/Kg	100	2.29	102	75-125	0	0
Antimony	57.4	M	3	mg/Kg	100	0.40	57	75-125	0	0
Cobalt	98.6		0.5	mg/Kg	100	5.08	94	75-125	0	0
Copper	114		1	mg/Kg	100	9.14	105	75-125	0	0
Lead	104		1	mg/Kg	100	13.8	90	75-125	0	0
Molybdenum	98.5		1	mg/Kg	100	0.19	98	75-125	0	0
Nickel	92.7		1.5	mg/Kg	100	5.66	87	75-125	0	0
Selenium	94.4		3	mg/Kg	100	6.66	88	75-125	0	0
Silver	110		0.5	mg/Kg	100	ND	110	75-125	0	0
Thallium	84.1		3	mg/Kg	100	3.11	81	75-125	0	0
Vanadium	114		0.5	mg/Kg	100	20.0	94	75-125	0	0
Zinc	135		5	mg/Kg	100	40.5	95	75-125	0	0
MSD (QC1193473MSD1)		**Source: NA**			Prepared: 07/18/2018 Analyzed: 07/23/2018					
Antimony	60.8	M	3	mg/Kg	100	0.40	60	75-125	5.8	20
Barium	130		1	mg/Kg	100	36.0	94	75-125	4.5	20
Arsenic	102		1	mg/Kg	100	2.29	100	75-125	1.9	20
Nickel	91.3		1.5	mg/Kg	100	5.66	86	75-125	1.5	20
Beryllium	86.9		0.5	mg/Kg	100	ND	87	75-125	1.1	20
Lead	102		1	mg/Kg	100	13.8	88	75-125	1.9	20
Cadmium	87.1		0.5	mg/Kg	100	ND	87	75-125	2.9	20
Zinc	133		5	mg/Kg	100	40.5	93	75-125	1.5	20
Thallium	84.4		3	mg/Kg	100	3.11	81	75-125	0.4	20
Silver	105		0.5	mg/Kg	100	ND	105	75-125	4.7	20
Selenium	89.4		3	mg/Kg	100	6.66	83	75-125	5.4	20
Molybdenum	98.0		1	mg/Kg	100	0.19	98	75-125	0.5	20
Copper	113		1	mg/Kg	100	9.14	104	75-125	0.9	20
Cobalt	94.2		0.5	mg/Kg	100	5.08	89	75-125	4.6	20
Chromium	97.4		1	mg/Kg	100	8.78	89	75-125	4.6	20
Vanadium	110		0.5	mg/Kg	100	20.0	90	75-125	3.6	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals, Title 22 _Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193474										
LCS (QC1193474LCS1)		**Source: NA**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
Silver	101		0.5	mg/Kg	100	NA	101	80-120	0	0
Zinc	90.5		5	mg/Kg	100	NA	91	80-120	0	0
Vanadium	100		0.5	mg/Kg	100	NA	100	80-120	0	0
Thallium	89.2		3	mg/Kg	100	NA	89	80-120	0	0
Selenium	79.3	L	3	mg/Kg	100	NA	79	80-120	0	0
Cobalt	93.3		0.5	mg/Kg	100	NA	93	80-120	0	0
Nickel	93.0		1.5	mg/Kg	100	NA	93	80-120	0	0
Molybdenum	91.6		1	mg/Kg	100	NA	92	80-120	0	0
Copper	94.9		1	mg/Kg	100	NA	95	80-120	0	0
Chromium	93.1		1	mg/Kg	100	NA	93	80-120	0	0
Cadmium	88.3		0.5	mg/Kg	100	NA	88	80-120	0	0
Beryllium	93.4		0.5	mg/Kg	100	NA	93	80-120	0	0
Barium	92.6		1	mg/Kg	100	NA	93	80-120	0	0
Lead	91.8		1	mg/Kg	100	NA	92	80-120	0	0
Arsenic	88.4		1	mg/Kg	100	NA	88	80-120	0	0
Antimony	96.4		3	mg/Kg	100	NA	96	80-120	0	0
Method Blank (QC1193474BLK1)		**Source: NA**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
Copper	ND		1	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Vanadium	ND		0.5	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals, Title 22 _Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193474 (Continued)										
MS (QC1193474MS1)		**Source: NA**			Prepared: 07/18/2018 Analyzed: 07/19/2018					
Cadmium	93.5		0.5	mg/Kg	100	0.28	93	75-125	0	0
Silver	105	M	0.5	mg/Kg	50	0.30	209	75-125	0	0
Selenium	67.3	M	3	mg/Kg	100	ND	67	75-125	0	0
Nickel	102		1.5	mg/Kg	100	7.98	94	75-125	0	0
Molybdenum	102		1	mg/Kg	100	2.48	100	75-125	0	0
Lead	99.3		1	mg/Kg	100	5.88	93	75-125	0	0
Zinc	116		5	mg/Kg	100	24.7	91	75-125	0	0
Beryllium	101		0.5	mg/Kg	100	ND	101	75-125	0	0
Barium	128		1	mg/Kg	100	35.1	93	75-125	0	0
Arsenic	101		1	mg/Kg	100	3.15	98	75-125	0	0
Antimony	68.6	M	3	mg/Kg	100	ND	69	75-125	0	0
Cobalt	98.2		0.5	mg/Kg	100	4.48	94	75-125	0	0
Thallium	89.2		3	mg/Kg	100	ND	89	75-125	0	0
Vanadium	119		0.5	mg/Kg	100	18.1	101	75-125	0	0
Chromium	108		1	mg/Kg	100	10.5	98	75-125	0	0
Copper	103		1	mg/Kg	100	9.17	94	75-125	0	0
MSD (QC1193474MSD1)		**Source: NA**			Prepared: 07/18/2018 Analyzed: 07/19/2018					
Cobalt	102		0.5	mg/Kg	100	4.48	98	75-125	3.8	20
Zinc	124		5	mg/Kg	100	24.7	99	75-125	6.7	20
Vanadium	129		0.5	mg/Kg	100	18.1	111	75-125	8.1	20
Thallium	89.5		3	mg/Kg	100	ND	90	75-125	0.3	20
Silver	108	M	0.5	mg/Kg	50	0.30	215	75-125	2.8	20
Selenium	61.4	M	3	mg/Kg	100	ND	61	75-125	9.2	20
Nickel	106		1.5	mg/Kg	100	7.98	98	75-125	3.8	20
Molybdenum	104		1	mg/Kg	100	2.48	102	75-125	1.9	20
Copper	111		1	mg/Kg	100	9.17	102	75-125	7.5	20
Chromium	116		1	mg/Kg	100	10.5	106	75-125	7.1	20
Cadmium	98.0		0.5	mg/Kg	100	0.28	98	75-125	4.7	20
Beryllium	102		0.5	mg/Kg	100	ND	102	75-125	1	20
Barium	137		1	mg/Kg	100	35.1	102	75-125	6.8	20
Arsenic	105		1	mg/Kg	100	3.15	102	75-125	3.9	20
Antimony	61.0	M	3	mg/Kg	100	ND	61	75-125	11.7	20
Lead	102		1	mg/Kg	100	5.88	96	75-125	2.7	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

pH by 9045

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0014										
Duplicate (B8G0014-DUP1)		**Source: P807007-01**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
pH	8.34			pH Units		8.29			0.601	20
Batch: B8G0015										
Duplicate (B8G0015-DUP1)		**Source: P807007-03**		Prepared: 07/18/2018 Analyzed: 07/19/2018						
pH	7.72			pH Units		8.18			5.79	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Polychlorinated Biphenyls_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193476										
LCS (QC1193476LCS1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
PCB-1016	490		50	ug/Kg	500	NA	98	70-130	0	0
PCB-1260	490		50	ug/Kg	500	NA	98	70-130	0	0
Surrogate: Decachlorobiphenyl DCB (SUR)	45.53			ug/Kg	50	NA	91	50-150		
Method Blank (QC1193476BLK1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
PCB-1268	ND		50	ug/Kg		NA		-		
PCB-1262	ND		50	ug/Kg		NA		-		
PCB-1260	ND		50	ug/Kg		NA		-		
PCB-1254	ND		50	ug/Kg		NA		-		
PCB-1248	ND		50	ug/Kg		NA		-		
PCB-1242	ND		50	ug/Kg		NA		-		
PCB-1232	ND		50	ug/Kg		NA		-		
PCB-1016	ND		50	ug/Kg		NA		-		
PCB-1221	ND		50	ug/Kg		NA		-		
Surrogate: Decachlorobiphenyl DCB (SUR)	55.31			ug/Kg	50	NA	111	50-150		
MS (QC1193476MS1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
PCB-1260	440		50	ug/Kg	500	ND	88	70-130	0	0
PCB-1016	440		50	ug/Kg	500	ND	88	70-130	0	0
Surrogate: Decachlorobiphenyl DCB (SUR)	40.12			ug/Kg	50	NA	80	50-150		
MSD (QC1193476MSD1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
PCB-1016	500		50	ug/Kg	500	ND	100	70-130	12.8	20
PCB-1260	500		50	ug/Kg	500	ND	100	70-130	12.8	20
Surrogate: Decachlorobiphenyl DCB (SUR)	43.23			ug/Kg	50	NA	86	50-150		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
D	RPD was not within control limits. The sample data was reported without further clarification.
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 2

PAL WO#: P807007

Client Name	Langan
Address	515 South Flower Street Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Title 22 Metals 6010/7000	CrVI 7199	TPH carbon chain 8015	PCBs 8082	Dioxins Herb	pH
1	SW-3-1'	7/13	0855	S	1 8oz. jar	X	X	X	X		
2	SW-3-pH-1'		0855	S	1 plastic bag						X
3	SW-3-5'		0900	S	1 8oz. jar	X	X	X	X		
4	SW-3-pH-5'		0900	S	1 plastic bag						X
5	SW-11-1'		1020	S	1 8oz. jar	X	X	X	X		
6	SW-11-pH-1'		1020	S	1 plastic bag						X
7	SW-11-5'		1025	S	1 8oz. jar	X	X	X	X		
8	SW-11-pH-5'		1025	S	plastic bag						X
9	SW-20-1'		1220	S	2 / 8oz. jars	X	X	X	X		X
10	~~SW-20-pH-1'~~										

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	(5 day)	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	14.7°C MV	

RELINQUISHED BY
Signature: Brad McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/14/18
TIME:

RECEIVED BY
Signature: MValenzuela
Print: MValenzuela
Company: PAL
DATE: 7/14/18
TIME: 1014

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-2886

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 2 of 2

PAL WO#: P807007

Client Name	Langan
Address	515 South Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	7210135D1
Sampled By	Kathleen Lo

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Title 22 Metals 6010/7000	CrVI 7199	TPH-carbon chain 8015	PCBs 8082	Dioxins 1613	pH
6	SW-20-5'	7/13	1225	S	2 / 8oz. jars	X	X	X	X		X
7	SW-12-1'	7/13	1400	S	1 / 8oz. jar	X	X	X	X		X
8	SW-12-5'	7/13	1400	S	2 / 8oz. jars	X	X	X	X		X
9	SW-17-1'	7/13	1555	S	2 / 8oz. jars	X	X	X	X		X
10	SW-17-5'	7/13	1600	S	2 / 8oz. jars	X	X	X	X		X
6											
7											
8											
9											
10											

G-2887

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD 5 day) RUSH 24 48 72

EDD Required - Circle one: Yes No

Type of EDD:

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY

Signature: [signature]
Print: Brad H. McCardell
Company: Langan
DATE: 7/14/18
TIME:

RECEIVED BY

Signature: [signature]
Print: MValenzuela
Company: PAL
DATE: 7/14/18
TIME: 1014

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)

**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)

**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807007

Cooler 1 OF 1

Client Langan

Date Received: 3 MW 7/14/18

Courier ⊗ CLIENT ○ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
Blue	○ Blank ⊗ Sample	14.7	0.0	14.7	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X MW	X	
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm	X		

NOTES

SW-3-pH-5 no Sample. Received.

Initials	Date	Initials	Date
MW	7/14/18		

Performance Analytical Laboratories, Inc.

404594

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807007

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P807007-01 Matrix: Solid Sampled: 07/13/2018 08:55			
S_Hexavalent Chromium 7199	5	07/23/2018 15:00	
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PCB 8082	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B)			
Sample ID: P807007-02 Matrix: Solid Sampled: 07/13/2018 09:00			
S_Hexavalent Chromium 7199	5	07/23/2018 15:00	
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PCB 8082	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	7/16/18	910	San Lam	7/16/18	910
San Lam	7/16/18	1010	Luis Izquierdo	7/16/18	1015

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807007

Analysis	TAT	Due	Comments
Sample ID: P807007-03 **Matrix: Solid** **Sampled: 07/13/2018 10:20**			
S_Hexavalent Chromium 7199	5	07/23/2018 15:00	
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PCB 8082	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B)			
Sample ID: P807007-04 **Matrix: Solid** **Sampled: 07/13/2018 10:25**			
S_Hexavalent Chromium 7199	5	07/23/2018 15:00	
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PCB 8082	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B)			
Sample ID: P807007-05 **Matrix: Solid** **Sampled: 07/13/2018 12:20**			
S_Hexavalent Chromium 7199	5	07/23/2018 15:00	
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PCB 8082	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	7/16/18	910	Sam Ram	7/16/18	910
Sam Ram	7/16/18	10:10	Mai Luong	7/16/18	1015

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807007

Analysis	TAT	Due	Comments
Sample ID: P807007-06 Matrix: Solid Sampled: 07/13/2018 12:25			
S_Hexavalent Chromium 7199	5	07/23/2018 15:00	
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PCB 8082	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807007-07 Matrix: Solid Sampled: 07/13/2018 14:00			
S_Hexavalent Chromium 7199	5	07/23/2018 15:00	
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PCB 8082	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B)			
Sample ID: P807007-08 Matrix: Solid Sampled: 07/13/2018 14:00			
S_Hexavalent Chromium 7199	5	07/23/2018 15:00	
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PCB 8082	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
M Vaglienti	7/16/18	910	Sam Ramos	7/16/18	9:10
Sam Ramos	7/16/18	1010	Mat Vaglienti	7/16/18	1015

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807007

Analysis	TAT	Due	Comments
Sample ID: P807007-09 **Matrix: Solid** **Sampled: 07/13/2018 15:55**			
S_Hexavalent Chromium 7199	5	07/23/2018 15:00	
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PCB 8082	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807007-10 **Matrix: Solid** **Sampled: 07/13/2018 16:00**			
S_Hexavalent Chromium 7199	5	07/23/2018 15:00	
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PCB 8082	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
M Valgrand	7/16/18	910	Sam Ramirez	7/16/18	9:10
Sam Ramirez	7/16/18	1010	Mya Lyndin	7/16/18	1015

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical

Project: _____

Date Received: 07/16/18

Sampler's Name Present: ☐ Yes ☑ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2)

Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 9.3 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☐ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 3.9 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	✓		
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 7/16/18

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

Performance Analytical Laboratories, Inc.

ELAP 2960

July 23, 2018

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Agua Mansa

Work Order: P807008

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/14/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 27

Qualifiers and Definitions 42

Chain of Custody PDFs 43

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807008-08	MAP-SB-3-1'		Solid	07/13/2018	07/14/2018
P807008-09	MAP-SB-3-5'		Solid	07/13/2018	07/14/2018
P807008-10	MAP-SB-3-10'		Solid	07/13/2018	07/14/2018
P807008-11	MAP-SB-3-30'		Solid	07/13/2018	07/14/2018
P807008-12	MAP-SB-3-50'		Solid	07/13/2018	07/14/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-1' **P807008-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193343)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	69%			30-120	07/17/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	75%			27-125	07/17/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	63%			33-155	07/17/2018	EPA 8270CM	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-5' **P807008-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193343)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	61%			30-120	07/17/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	63%			27-125	07/17/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	62%			33-155	07/17/2018	EPA 8270CM	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-10' **P807008-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193474)							
Antimony	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Arsenic	**18.8**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Barium	**85.2**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	**0.93**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**24.7**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**11.1**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**20.0**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Lead	**18.6**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	**2.05**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Nickel	**21.7**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	L
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**39.4**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**63.0**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C28-C33	**2.98**	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	96.8%			60-140	07/18/2018	EPA 8015B (M)	
Mercury_Subcontract (Batch ID: QC1193477)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-10' (Continued) **P807008-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Mercury_Subcontract (Batch ID: QC1193477) (Continued)							
Mercury	ND	mg/Kg	1	0.14	07/19/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193343)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	50%			30-120	07/17/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	59%			27-125	07/17/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	64%			33-155	07/17/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193341)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-10' (Continued) **P807008-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193341) (Continued)							
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/17/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-10' (Continued) **P807008-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193341) (Continued)							
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/17/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	78%			34-143	07/17/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	56%			41-125	07/17/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	68%			13-153	07/17/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	56%			27-125	07/17/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	81%			10-110	07/17/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	78%			33-155	07/17/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-10' (Continued) **P807008-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0011)							
Acetone	ND	µg/Kg	1	17	07/16/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	43	07/16/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.3	07/16/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	07/16/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.3	07/16/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.3	07/16/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.3	07/16/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-10' (Continued) **P807008-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0011) (Continued)							
1,2-Dichloropropane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.3	07/16/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.3	07/16/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.3	07/16/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	8.7	07/16/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	07/16/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	8.7	07/16/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	17	07/16/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	22	07/16/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	6.9	07/16/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-10' (Continued) **P807008-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0011) (Continued)							
Trichloroethene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.87	07/16/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.7	07/16/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.6	07/16/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	98.3%			60-140	07/16/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	97.3%			60-140	07/16/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	111%			60-140	07/16/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	98.5%			60-140	07/16/2018	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-30' **P807008-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193474)							
Antimony	**3.89**	mg/Kg	1	3	07/19/2018	EPA 6010B	
Arsenic	**24.2**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Barium	**140**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**24.0**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**13.1**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**19.2**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Lead	**5.80**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/19/2018	EPA 6010B	
Nickel	**15.0**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	L
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**51.1**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**63.1**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0012)							
C7-C8	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/18/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	98.5%			60-140	07/18/2018	EPA 8015B (M)	
Mercury_Subcontract (Batch ID: QC1193477)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-30' (Continued) **P807008-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Mercury_Subcontract (Batch ID: QC1193477) (Continued)							
Mercury	ND	mg/Kg	1	0.14	07/19/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193343)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	43%			30-120	07/17/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	52%			27-125	07/17/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	67%			33-155	07/17/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193341)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-30' (Continued) **P807008-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193341) (Continued)							
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/17/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-30' (Continued) **P807008-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193341) (Continued)							
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/17/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	74%			34-143	07/17/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	45%			41-125	07/17/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	59%			13-153	07/17/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	45%			27-125	07/17/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	72%			10-110	07/17/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	74%			33-155	07/17/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-30' (Continued) **P807008-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0011)							
Acetone	ND	µg/Kg	1	20	07/16/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	49	07/16/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.9	07/16/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	07/16/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.9	07/16/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.9	07/16/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.9	07/16/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-30' (Continued) **P807008-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0011) (Continued)							
1,2-Dichloropropane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.9	07/16/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.9	07/16/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.9	07/16/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	9.8	07/16/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	07/16/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	9.8	07/16/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	20	07/16/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	07/16/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	7.8	07/16/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-30' (Continued) **P807008-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0011) (Continued)							
Trichloroethene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.98	07/16/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.0	07/16/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.9	07/16/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	99.2%			60-140	07/16/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	96.6%			60-140	07/16/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	108%			60-140	07/16/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	98.3%			60-140	07/16/2018	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-50' **P807008-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193474)							
Antimony	**3.49**	mg/Kg	1	3	07/19/2018	EPA 6010B	
Arsenic	**7.07**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Barium	**137**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Chromium	**21.7**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Cobalt	**11.4**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Copper	**14.0**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Lead	**3.55**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Molybdenum	**1.17**	mg/Kg	1	1	07/19/2018	EPA 6010B	
Nickel	**11.2**	mg/Kg	1	1.5	07/19/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	L
Silver	ND	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/19/2018	EPA 6010B	
Vanadium	**41.1**	mg/Kg	1	0.5	07/19/2018	EPA 6010B	
Zinc	**43.2**	mg/Kg	1	5	07/19/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	5.00	07/21/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	5.00	07/21/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	5.00	07/21/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	5.00	07/21/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	5.00	07/21/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	5.00	07/21/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	5.00	07/21/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	5.00	07/21/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	5.00	07/21/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	5.00	07/21/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	5.00	07/21/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	5.00	07/21/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	101%			60-140	07/21/2018	EPA 8015B (M)	
Mercury_Subcontract (Batch ID: QC1193477)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-50' (Continued) **P807008-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Mercury_Subcontract (Batch ID: QC1193477) (Continued)							
Mercury	ND	mg/Kg	1	0.14	07/19/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193343)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/17/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	52%			30-120	07/17/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	64%			27-125	07/17/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	72%			33-155	07/17/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193341)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-50' (Continued) **P807008-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193341) (Continued)							
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/17/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-50' (Continued) **P807008-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193341) (Continued)							
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/17/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/17/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/17/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	77%			34-143	07/17/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	53%			41-125	07/17/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	64%			13-153	07/17/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	52%			27-125	07/17/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	77%			10-110	07/17/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	78%			33-155	07/17/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-50' (Continued) **P807008-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0011)							
Acetone	ND	µg/Kg	1	24	07/16/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	61	07/16/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	6.1	07/16/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	24	07/16/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	6.1	07/16/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	6.1	07/16/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	6.1	07/16/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-50' (Continued) **P807008-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0011) (Continued)							
1,2-Dichloropropane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	6.1	07/16/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	6.1	07/16/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	6.1	07/16/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	12	07/16/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	24	07/16/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	12	07/16/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	24	07/16/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	30	07/16/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	9.8	07/16/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-3-50' (Continued) **P807008-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0011) (Continued)							
Trichloroethene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.2	07/16/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.4	07/16/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.7	07/16/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	100%			60-140	07/16/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	95.7%			60-140	07/16/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	109%			60-140	07/16/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	99.7%			60-140	07/16/2018	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193474										
LCS (QC1193474LCS1)		**Source: NA**			Prepared: 07/18/2018 Analyzed: 07/19/2018					
Lead	91.8		1	mg/Kg	100	NA	92	80-120	0	
Antimony	96.4		3	mg/Kg	100	NA	96	80-120	0	
Arsenic	88.4		1	mg/Kg	100	NA	88	80-120	0	
Barium	92.6		1	mg/Kg	100	NA	93	80-120	0	
Beryllium	93.4		0.5	mg/Kg	100	NA	93	80-120	0	
Cadmium	88.3		0.5	mg/Kg	100	NA	88	80-120	0	
Chromium	93.1		1	mg/Kg	100	NA	93	80-120	0	
Copper	94.9		1	mg/Kg	100	NA	95	80-120	0	
Molybdenum	91.6		1	mg/Kg	100	NA	92	80-120	0	
Nickel	93.0		1.5	mg/Kg	100	NA	93	80-120	0	
Silver	101		0.5	mg/Kg	100	NA	101	80-120	0	
Vanadium	100		0.5	mg/Kg	100	NA	100	80-120	0	
Zinc	90.5		5	mg/Kg	100	NA	91	80-120	0	
Thallium	89.2		3	mg/Kg	100	NA	89	80-120	0	
Cobalt	93.3		0.5	mg/Kg	100	NA	93	80-120	0	
Selenium	79.3	L	3	mg/Kg	100	NA	79	80-120	0	
Method Blank (QC1193474MB1)		**Source: NA**			Prepared: 07/18/2018 Analyzed: 07/19/2018					
Nickel	ND		1.5	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Copper	ND		1	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Vanadium	ND		0.5	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193474 (Continued)										
MS (QC1193474MS1)		**Source: NA**			Prepared: 07/18/2018 Analyzed: 07/19/2018					
Arsenic	101		1	mg/Kg	100	3.15	98	75-125	0	
Antimony	68.6	M	3	mg/Kg	100	ND	69	75-125	0	
Barium	128		1	mg/Kg	100	35.1	93	75-125	0	
Lead	99.3		1	mg/Kg	100	5.88	93	75-125	0	
Beryllium	101		0.5	mg/Kg	100	ND	101	75-125	0	
Cadmium	93.5		0.5	mg/Kg	100	0.28	93	75-125	0	
Chromium	108		1	mg/Kg	100	10.5	98	75-125	0	
Cobalt	98.2		0.5	mg/Kg	100	4.48	94	75-125	0	
Copper	103		1	mg/Kg	100	9.17	94	75-125	0	
Molybdenum	102		1	mg/Kg	100	2.48	100	75-125	0	
Thallium	89.2		3	mg/Kg	100	ND	89	75-125	0	
Zinc	116		5	mg/Kg	100	24.7	91	75-125	0	
Selenium	67.3	M	3	mg/Kg	100	ND	67	75-125	0	
Silver	105	M	0.5	mg/Kg	50	0.30	209	75-125	0	
Nickel	102		1.5	mg/Kg	100	7.98	94	75-125	0	
Vanadium	119		0.5	mg/Kg	100	18.1	101	75-125	0	
MSD (QC1193474MSD1)		**Source: NA**			Prepared: 07/18/2018 Analyzed: 07/19/2018					
Nickel	106		1.5	mg/Kg	100	7.98	98	75-125	3.8	
Zinc	124		5	mg/Kg	100	24.7	99	75-125	6.7	
Vanadium	129		0.5	mg/Kg	100	18.1	111	75-125	8.1	
Thallium	89.5		3	mg/Kg	100	ND	90	75-125	0.3	
Selenium	61.4	M	3	mg/Kg	100	ND	61	75-125	9.2	
Molybdenum	104		1	mg/Kg	100	2.48	102	75-125	1.9	
Lead	102		1	mg/Kg	100	5.88	96	75-125	2.7	
Copper	111		1	mg/Kg	100	9.17	102	75-125	7.5	
Cobalt	102		0.5	mg/Kg	100	4.48	98	75-125	3.8	
Chromium	116		1	mg/Kg	100	10.5	106	75-125	7.1	
Cadmium	98.0		0.5	mg/Kg	100	0.28	98	75-125	4.7	
Beryllium	102		0.5	mg/Kg	100	ND	102	75-125	1	
Barium	137		1	mg/Kg	100	35.1	102	75-125	6.8	
Silver	108	M	0.5	mg/Kg	50	0.30	215	75-125	2.8	
Arsenic	105		1	mg/Kg	100	3.15	102	75-125	3.9	
Antimony	61.0	M	3	mg/Kg	100	ND	61	75-125	11.7	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0012										
Blank (B8G0012-BLK1)				Prepared: 07/16/2018 Analyzed: 07/17/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.00			mg/kg	2.00		99.8	60-140		
LCS (B8G0012-BS1)				Prepared: 07/16/2018 Analyzed: 07/17/2018						
Diesel	46.7		2.50	mg/kg	50.0		93.3	70-130		
Surrogate: n-Octacosane (c28)	1.99			mg/kg	2.00		99.3	60-140		
LCS Dup (B8G0012-BSD1)				Prepared: 07/16/2018 Analyzed: 07/17/2018						
Diesel	46.1		2.50	mg/kg	50.0		92.2	70-130	1.26	20
Surrogate: n-Octacosane (c28)	1.92			mg/kg	2.00		95.8	60-140		
Matrix Spike (B8G0012-MS1)		**Source: P807007-01**		Prepared: 07/16/2018 Analyzed: 07/17/2018						
Diesel	55.9		2.50	mg/kg	50.0	13.8	84.2	70-130		
Surrogate: n-Octacosane (c28)	1.74			mg/kg	2.00		87.1	60-140		
Matrix Spike Dup (B8G0012-MSD1)		**Source: P807007-01**		Prepared: 07/16/2018 Analyzed: 07/17/2018						
Diesel	60.1		2.50	mg/kg	50.0	13.8	92.8	70-130	7.40	20
Surrogate: n-Octacosane (c28)	1.70			mg/kg	2.00		84.8	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0013										
Blank (B8G0013-BLK1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.09			mg/kg	2.00		104	60-140		
LCS (B8G0013-BS1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	46.0		2.50	mg/kg	50.0		91.9	70-130		
Surrogate: n-Octacosane (c28)	2.09			mg/kg	2.00		104	60-140		
LCS Dup (B8G0013-BSD1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	47.1		2.50	mg/kg	50.0		94.3	70-130	2.52	20
Surrogate: n-Octacosane (c28)	2.05			mg/kg	2.00		102	60-140		
Matrix Spike (B8G0013-MS1)		**Source: P807011-03**		Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	43.7		2.50	mg/kg	50.0	2.81	81.8	70-130		
Surrogate: n-Octacosane (c28)	2.00			mg/kg	2.00		99.8	60-140		
Matrix Spike Dup (B8G0013-MSD1)		**Source: P807011-03**		Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	44.5		2.50	mg/kg	50.0	2.81	83.4	70-130	1.72	20
Surrogate: n-Octacosane (c28)	2.02			mg/kg	2.00		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193477										
LCS (QC1193477LCS1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
Mercury	0.91		0.14	mg/Kg	0.83	NA	110	80-120	0	
Method Blank (QC1193477MB1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193477MS1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
Mercury	0.85		0.14	mg/Kg	0.83	ND	102	75-125	0	
MSD (QC1193477MSD1)		**Source: NA**		Prepared & Analyzed: 07/19/2018						
Mercury	0.87		0.14	mg/Kg	0.83	ND	105	75-125	2.3	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

PAH (SIM)_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193343										
LCS (QC1193343LCS1)		**Source: NA**		Prepared: 07/17/2018 Analyzed: 07/16/2018						
Benzo(g,h,i)perylene	37		10	ug/Kg	50	NA	74	54-135	0	
1-Methylnaphthalene	42		10	ug/Kg	50	NA	84	38-130	0	
Benzo(a)pyrene	54		10	ug/Kg	50	NA	108	36-168	0	
Benzo(b)fluoranthene	51		10	ug/Kg	50	NA	102	63-147	0	
2-Methylnaphthalene	44		10	ug/Kg	50	NA	88	59-130	0	
Acenaphthene	42		10	ug/Kg	50	NA	84	58-130	0	
Acenaphthylene	44		10	ug/Kg	50	NA	88	52-130	0	
Anthracene	46		10	ug/Kg	50	NA	92	55-136	0	
Benz(a)anthracene	54		10	ug/Kg	50	NA	108	61-147	0	
Benzo(k)fluoranthene	54		10	ug/Kg	50	NA	108	64-142	0	
Naphthalene	40		10	ug/Kg	50	NA	80	50-130	0	
Pyrene	50		10	ug/Kg	50	NA	100	68-134	0	
Phenanthrene	47		10	ug/Kg	50	NA	94	65-132	0	
Chrysene	46		10	ug/Kg	50	NA	92	66-130	0	
Indeno(1,2,3-cd)pyrene	44		10	ug/Kg	50	NA	88	58-144	0	
Fluorene	46		10	ug/Kg	50	NA	92	63-130	0	
Fluoranthene	50		10	ug/Kg	50	NA	100	68-139	0	
Dibenz(a,h)anthracene	38		10	ug/Kg	50	NA	76	52-144	0	
Surrogate: 2-Fluorobiphenyl (SUR)	37.261			ug/Kg	50	NA	75	30-120		
Surrogate: p-Terphenyl (SUR)	38.22			ug/Kg	50	NA	76	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	36.962			ug/Kg	50	NA	74	27-125		
Method Blank (QC1193343MB1)		**Source: NA**		Prepared: 07/17/2018 Analyzed: 07/16/2018						
Fluorene	ND		10	ug/Kg		NA		-		
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Acenaphthene	ND		10	ug/Kg		NA		-		
Acenaphthylene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Benzo(a)pyrene	ND		10	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Chrysene	ND		10	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Phenanthrene	ND		10	ug/Kg		NA		-		
Pyrene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
Fluoranthene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Surrogate: 2-Fluorobiphenyl (SUR)	32.21			ug/Kg	50	NA	64	30-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

PAH (SIM)_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193343 (Continued)										
Method Blank (QC1193343MB1)		**Source: NA**			Prepared: 07/17/2018 Analyzed: 07/16/2018					
Surrogate: Nitrobenzene-d5 (SUR)	33.066			ug/Kg	50	NA	66	27-125		
Surrogate: p-Terphenyl (SUR)	34.116			ug/Kg	50	NA	68	33-155		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193341										
LCS (QC1193341LCS1)		**Source: NA**		Prepared & Analyzed: 07/16/2018						
2,4-Dimethylphenol	1600		250	ug/Kg	2000	NA	80	68-120	0	
Acenaphthene	1700		250	ug/Kg	2000	NA	85	70-113	0	
1,2,4-Trichlorobenzene	1500		250	ug/Kg	2000	NA	75	57-112	0	
1,4-Dichlorobenzene	1400		250	ug/Kg	2000	NA	70	67-113	0	
2,4,5-Trichlorophenol	1800		250	ug/Kg	2000	NA	90	59-121	0	
2,4-Dinitrotoluene	1800		250	ug/Kg	2000	NA	90	68-115	0	
3 and 4-Methylphenol (m and p-Cresol)	1700		400	ug/Kg	2000	NA	85	55-126	0	
2-Chlorophenol	1500		250	ug/Kg	2000	NA	75	61-120	0	
4-Nitrophenol	1800		250	ug/Kg	2000	NA	90	30-130	0	
Benzo(b)fluoranthene	2000		250	ug/Kg	2000	NA	100	62-132	0	
Chrysene	1900		250	ug/Kg	2000	NA	95	63-133	0	
N-Nitrosodi-n-propylamine (NDPA)	1600		250	ug/Kg	2000	NA	80	53-134	0	
Pentachlorophenol	1400		1200	ug/Kg	2000	NA	70	29-138	0	
Phenol	1700		250	ug/Kg	2000	NA	85	55-131	0	
Pyrene	1900		250	ug/Kg	2000	NA	95	73-131	0	
4-Chloro-3-methylphenol	1900		250	ug/Kg	2000	NA	95	55-129	0	
Surrogate: 2,4,6-Tribromophenol (SUR)	2041.305			ug/Kg	2000	NA	102	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1644.698			ug/Kg	2000	NA	82	41-125		
Surrogate: 2-Fluorophenol (SUR)	1546.223			ug/Kg	2000	NA	77	13-153		
Surrogate: Nitrobenzene-d5 (SUR)	1481.418			ug/Kg	2000	NA	74	27-125		
Surrogate: Phenol-d5 (SUR)	1752.111			ug/Kg	2000	NA	88	10-110		
Surrogate: p-Terphenyl (SUR)	1844.106			ug/Kg	2000	NA	92	33-155		
Method Blank (QC1193341MB1)		**Source: NA**		Prepared & Analyzed: 07/16/2018						
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
3-Nitroaniline	ND		250	ug/Kg		NA		-		
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193341 (Continued)										
Method Blank (QC1193341MB1)		**Source: NA**			Prepared & Analyzed: 07/16/2018					
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
Total Cresol	ND		400	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
4-Nitrophenol	ND		250	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		
Chrysene	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
Dibenzofuran	ND		250	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
Acenaphthylene	ND		250	ug/Kg		NA		-		
Acenaphthene	ND		250	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
Phenol	ND		250	ug/Kg		NA		-		
Phenanthrene	ND		250	ug/Kg		NA		-		
Benz(a)anthracene	ND		250	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
Nitrobenzene	ND		1200	ug/Kg		NA		-		
Naphthalene	ND		250	ug/Kg		NA		-		
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193341 (Continued)										
Method Blank (QC1193341MB1)		**Source: NA**			Prepared & Analyzed: 07/16/2018					
Fluorene	ND		250	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		
Hexachloroethane	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
Surrogate: 2-Fluorophenol (SUR)	1365.535			ug/Kg	2000	NA	68	13-153		
Surrogate: 2,4,6-Tribromophenol (SUR)	1824.4			ug/Kg	2000	NA	91	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1500.892			ug/Kg	2000	NA	75	41-125		
Surrogate: Phenol-d5 (SUR)	1613.664			ug/Kg	2000	NA	81	10-110		
Surrogate: p-Terphenyl (SUR)	1824.818			ug/Kg	2000	NA	91	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	1230.359			ug/Kg	2000	NA	62	27-125		
MS (QC1193341MS1)		**Source: NA**			Prepared & Analyzed: 07/16/2018					
Phenol	1800		250	ug/Kg	2000	ND	90	46-116	0	
Pentachlorophenol	1400		1200	ug/Kg	2000	ND	70	43-120	0	
N-Nitrosodi-n-propylamine (NDPA)	1700		250	ug/Kg	2000	ND	85	41-127	0	
Chrysene	1800		250	ug/Kg	2000	ND	90	68-120	0	
Benzo(b)fluoranthene	2000		250	ug/Kg	2000	ND	100	59-126	0	
Acenaphthene	1600		250	ug/Kg	2000	ND	80	57-99	0	
4-Nitrophenol	1700		250	ug/Kg	2000	ND	85	37-107	0	
3 and 4-Methylphenol (m and p-Cresol)	1900		400	ug/Kg	2000	ND	95	33-116	0	
2-Chlorophenol	1600		250	ug/Kg	2000	ND	80	42-102	0	
2,4-Dinitrotoluene	1700		250	ug/Kg	2000	ND	85	48-109	0	
2,4-Dimethylphenol	1700		250	ug/Kg	2000	ND	85	37-105	0	
2,4,5-Trichlorophenol	1900		250	ug/Kg	2000	ND	95	44-108	0	
1,4-Dichlorobenzene	1400		250	ug/Kg	2000	ND	70	39-95	0	
1,2,4-Trichlorobenzene	1400		250	ug/Kg	2000	ND	70	35-93	0	
4-Chloro-3-methylphenol	2000		250	ug/Kg	2000	ND	100	33-120	0	
Pyrene	1900		250	ug/Kg	2000	ND	95	53-129	0	
Surrogate: 2-Fluorophenol (SUR)	1592.475			ug/Kg	2000	NA	80	13-153		
Surrogate: Phenol-d5 (SUR)	1793.495			ug/Kg	2000	NA	90	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1479.202			ug/Kg	2000	NA	74	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	1559.738			ug/Kg	2000	NA	78	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1846.838			ug/Kg	2000	NA	92	34-143		
Surrogate: p-Terphenyl (SUR)	1720.879			ug/Kg	2000	NA	86	33-155		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193341 (Continued)										
MSD (QC1193341MSD1)		**Source: NA**		Prepared & Analyzed: 07/16/2018						
1,2,4-Trichlorobenzene	1300		250	ug/Kg	2000	ND	65	35-93	7.4	
4-Chloro-3-methylphenol	2000		250	ug/Kg	2000	ND	100	33-120	0	
Pyrene	1900		250	ug/Kg	2000	ND	95	53-129	0	
Phenol	1900		250	ug/Kg	2000	ND	95	46-116	5.4	
Pentachlorophenol	1400		1200	ug/Kg	2000	ND	70	43-120	0	
N-Nitrosodi-n-propylamine (NDPA)	1700		250	ug/Kg	2000	ND	85	41-127	0	
4-Nitrophenol	1700		250	ug/Kg	2000	ND	85	37-107	0	
3 and 4-Methylphenol (m and p-Cresol)	1900		400	ug/Kg	2000	ND	95	33-116	0	
2-Chlorophenol	1600		250	ug/Kg	2000	ND	80	42-102	0	
2,4-Dinitrotoluene	1800		250	ug/Kg	2000	ND	90	48-109	5.7	
2,4-Dimethylphenol	1700		250	ug/Kg	2000	ND	85	37-105	0	
2,4,5-Trichlorophenol	1900		250	ug/Kg	2000	ND	95	44-108	0	
1,4-Dichlorobenzene	1400		250	ug/Kg	2000	ND	70	39-95	0	
Acenaphthene	1600		250	ug/Kg	2000	ND	80	57-99	0	
Benzo(b)fluoranthene	2100		250	ug/Kg	2000	ND	105	59-126	4.9	
Chrysene	1900		250	ug/Kg	2000	ND	95	68-120	5.4	
Surrogate: p-Terphenyl (SUR)	1862.387			ug/Kg	2000	NA	93	33-155		
Surrogate: Phenol-d5 (SUR)	2009.167			ug/Kg	2000	NA	100	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1654.328			ug/Kg	2000	NA	83	27-125		
Surrogate: 2-Fluorophenol (SUR)	1744.188			ug/Kg	2000	NA	87	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1721.15			ug/Kg	2000	NA	86	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	2087.737			ug/Kg	2000	NA	104	34-143		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0011										
Blank (B8G0011-BLK1)				Prepared & Analyzed: 07/16/2018						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0011 (Continued)										
Blank (B8G0011-BLK1)				Prepared & Analyzed: 07/16/2018						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		8.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	48			µg/Kg	50.0		95.2	60-140		
Surrogate: 4-Bromofluorobenzene	46			µg/Kg	50.0		92.6	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		98.6	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		97.2	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0011 (Continued)										
LCS (B8G0011-BS1)				Prepared & Analyzed: 07/16/2018						
Benzene	51		1.0	µg/Kg	50.0		103	70-130		
Bromobenzene	52		1.0	µg/Kg	50.0		104	70-130		
Bromodichloromethane	51		1.0	µg/Kg	50.0		101	70-130		
Bromoform	50		1.0	µg/Kg	50.0		100	70-130		
Chlorobenzene	51		1.0	µg/Kg	50.0		103	70-130		
Chloroethane	53		5.0	µg/Kg	50.0		105	70-130		
Chloroform	49		1.0	µg/Kg	50.0		98.1	70-130		
4-Chlorotoluene	53		1.0	µg/Kg	50.0		106	70-130		
Dibromomethane	50		1.0	µg/Kg	50.0		100	70-130		
1,2-Dichlorobenzene	51		1.0	µg/Kg	50.0		102	70-130		
1,1-Dichloroethene	53		1.0	µg/Kg	50.0		106	70-130		
1,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.9	70-130		
2,2-Dichloropropane	52		1.0	µg/Kg	50.0		105	70-130		
1,1-Dichloropropene	51		1.0	µg/Kg	50.0		102	70-130		
Diethyl Ether	47		5.0	µg/Kg	50.0		94.9	70-130		
Diisopropyl Ether (DIPE)	50		1.0	µg/Kg	50.0		99.8	70-130		
Ethylbenzene	54		1.0	µg/Kg	50.0		108	70-130		
Hexachloro-1,3-Butadiene	52		1.0	µg/Kg	50.0		104	70-130		
Methylene Chloride	52		10	µg/Kg	50.0		105	70-130		
Methyl-t-Butyl Ether (MTBE)	49		1.0	µg/Kg	50.0		98.6	70-130		
Naphthalene	52		10	µg/Kg	50.0		103	70-130		
Styrene	54		1.0	µg/Kg	50.0		109	70-130		
tert-Butylbenzene	53		1.0	µg/Kg	50.0		106	70-130		
Tetrachloroethene	51		1.0	µg/Kg	50.0		102	70-130		
Toluene	52		1.0	µg/Kg	50.0		105	70-130		
1,2,3-Trichlorobenzene	53		1.0	µg/Kg	50.0		106	70-130		
Trichloroethene	51		1.0	µg/Kg	50.0		102	70-130		
1,3,5-Trimethylbenzene	57		1.0	µg/Kg	50.0		114	70-130		
Vinyl Chloride	53		1.0	µg/Kg	50.0		105	70-130		
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		100	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		98.4	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.9	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0011 (Continued)										
LCS Dup (B8G0011-BSD1)				Prepared & Analyzed: 07/16/2018						
Benzene	52		1.0	µg/Kg	50.0		103	70-130	0.252	20
Bromobenzene	51		1.0	µg/Kg	50.0		101	70-130	2.75	20
Bromodichloromethane	50		1.0	µg/Kg	50.0		99.8	70-130	1.71	20
Bromoform	49		1.0	µg/Kg	50.0		97.1	70-130	2.98	20
Chlorobenzene	51		1.0	µg/Kg	50.0		101	70-130	1.18	20
Chloroethane	50		5.0	µg/Kg	50.0		100	70-130	4.82	20
Chloroform	49		1.0	µg/Kg	50.0		98.3	70-130	0.224	20
4-Chlorotoluene	54		1.0	µg/Kg	50.0		109	70-130	2.25	20
Dibromomethane	48		1.0	µg/Kg	50.0		95.0	70-130	5.57	20
1,2-Dichlorobenzene	51		1.0	µg/Kg	50.0		101	70-130	0.492	20
1,1-Dichloroethene	54		1.0	µg/Kg	50.0		108	70-130	1.36	20
1,2-Dichloropropane	49		1.0	µg/Kg	50.0		97.8	70-130	2.21	20
2,2-Dichloropropane	55		1.0	µg/Kg	50.0		109	70-130	4.23	20
1,1-Dichloropropene	53		1.0	µg/Kg	50.0		105	70-130	3.52	20
Diethyl Ether	46		5.0	µg/Kg	50.0		92.3	70-130	2.73	20
Diisopropyl Ether (DIPE)	49		1.0	µg/Kg	50.0		98.7	70-130	1.17	20
Ethylbenzene	55		1.0	µg/Kg	50.0		111	70-130	2.71	20
Hexachloro-1,3-Butadiene	53		1.0	µg/Kg	50.0		107	70-130	3.00	20
Methylene Chloride	50		10	µg/Kg	50.0		101	70-130	3.88	20
Methyl-t-Butyl Ether (MTBE)	48		1.0	µg/Kg	50.0		95.6	70-130	3.09	20
Naphthalene	51		10	µg/Kg	50.0		102	70-130	0.816	20
Styrene	55		1.0	µg/Kg	50.0		110	70-130	1.06	20
tert-Butylbenzene	53		1.0	µg/Kg	50.0		107	70-130	1.20	20
Tetrachloroethene	52		1.0	µg/Kg	50.0		104	70-130	1.81	20
Toluene	53		1.0	µg/Kg	50.0		105	70-130	0.570	20
1,2,3-Trichlorobenzene	52		1.0	µg/Kg	50.0		103	70-130	2.31	20
Trichloroethene	51		1.0	µg/Kg	50.0		103	70-130	1.35	20
1,3,5-Trimethylbenzene	57		1.0	µg/Kg	50.0		114	70-130	0.00	20
Vinyl Chloride	50		1.0	µg/Kg	50.0		101	70-130	4.64	20
Surrogate: Dibromofluoromethane	49			µg/Kg	50.0		97.1	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	47			µg/Kg	50.0		94.8	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.0	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 2

PAL WO#: 1807008

Client Name	Langan
Address	515 South Flower St #2860, Los Angeles CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-772-8217
Project Name/Number	Aqua Mansa 721013501
P.O. Number	721013501
Sampled By	Connor Ridge

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	VOCs 8260B	TPH Carbon Chain 8015M	EPA METHOD 6010/7000	SVOCs 8270C	PAHs 8270C
1	WCP-SG-1-5'	7/13	0815	S	VOAs; 8oz jar	X	X			
2	WCP-SG-1-15'	7/13	0830	S	VOAs; 8oz jar	X	X			
3	WCP-SG-3-5'	7/13	940	S	VOAs; 8oz jar	X	X			
4	WCP-SG-3-15'	7/13	955	S	VOAs; 8oz jar	X	X			
5	GCP-SG-1-5	7/13	1115	S	VOAs & 8oz JAR	X	X			
6	GCP-SG-1-15	7/13	1125	S	VOAs & 8oz JAR	X	X			
7	DUP1-2018-07-13	7/13	1125	S	VOAs & 8oz JAR	X	X			
8	MAP-SB-3-1'	7/13	1510	S	8oz jar					X
9	MAP-SB-3-5'	7/13	1245	S	8oz JAR					X
10	MAP-SB-3-10'	7/13	~~1330~~ 1255	S	VOAs; 8oz JARS		X	X	X	X

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	STD 5 day	RUSH 24	48	72
EDD Required - Circle one:	Yes	No		
Type of EDD:				
Reciept Temp./ Initials: (Temp recorded is not corrected)	2.7°C MV			

RELINQUISHED BY
Signature: [signature]
Print: M Valenzuela / Brad A. McCardell
Company: PAL / Langan
DATE: 7/14/18
TIME: 1025

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/14/18
TIME: 1016

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-2936

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 2 of 2

PAL WO#: P807008

Client Name	Langan
Address	515 South ~~Flower~~ Figueroa St #2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Ved Shukla
Email	bmccardell@langan.com
Phone	909-772-8217
Project Name/Number	Aqua Mansa 721013501
P.O. Number	721013501
Sampled By	Connor Ridge

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	VOCs 8260B	TPH Carbon Chain 8015M	Metals 6010/7000	SVOCs 8270C	PAHs 8270C
1	MAP-SB-3-30'	7/13	1440	S	VOAs; 8oz jars	X	X	X	X	X
2	MAP-SB-3-50'	7/13	~~1445~~ 1330	S	VOAs; 8oz jars	X	X	X	X	X
3	TBZ-2018-07-13	7/13	0800	W	VOAs					
4										
5										
6										
7										
8										
9										
10										

G-2937

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY
Signature: [signature]
Print: Brad A. McCardell
Company: Langan
DATE: 7/14/18
TIME: 1016

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/14/18
TIME: 1016

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807008

Cooler 1 OF 1

Client Langan

Date Received: 7/14/18

Courier ⊗ CLIENT ○ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
Red	○ Blank ⊗ Sample	2.7	0.0	2.7	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ⊗ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm	X		

NOTES

Initials	Date	Initials	Date
MV	7/14/18		

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807008

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P807008-08 Matrix: Solid Sampled: 07/13/2018 15:10			
S_PAH 8270 SIM	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A)			
Sample ID: P807008-09 Matrix: Solid Sampled: 07/13/2018 12:45			
S_PAH 8270 SIM	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A)			
Sample ID: P807008-10 Matrix: Solid Sampled: 07/13/2018 13:00			
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PAH 8270 SIM	5	07/23/2018 15:00	
S_SVOA 8270C	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/16/18	910	[signature]	7/16/18	9:10
[signature]	7/16/18	1010	[signature]	7/16/18	1019

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807008

Analysis	TAT	Due	Comments
Sample ID: P807008-11 Matrix: Solid Sampled: 07/13/2018 14:40			
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PAH 8270 SIM	5	07/23/2018 15:00	
S_SVOA 8270C	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (G)			
Sample ID: P807008-12 Matrix: Solid Sampled: 07/13/2018 14:50			
S_Mercury 7471	5	07/23/2018 15:00	
S_Metals 6010B Title 22	5	07/23/2018 15:00	
S_PAH 8270 SIM	5	07/23/2018 15:00	
S_SVOA 8270C	5	07/23/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (G)			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	7/16/18	910	Sari Ramirez	7/16/18	9:10
Sari Ramirez	7/16/18	10:10		7/16/18	1019

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical

Project: _____

Date Received: 07/16/18

Sampler's Name Present: ☐ Yes ☑ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2)

Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 9.3 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☐ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 3.9 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	✓		
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 7/16/18

Performance Analytical Laboratories, Inc.

ELAP 2960

August 14, 2018

Change Order Report

Langan
32 Executive Park, Suite 130
Irvine, CA 92614-4721

Re: DTSC Riverside
Project No. : Agua Mansa
Work Order: P807010

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/17/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,

Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 5

Qualifiers and Definitions 6

Exceptions List 7

Chain of Custody PDF 8

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807010-04	MAP-SB-2-10		Solid	07/16/2018	07/17/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-10 **P807010-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0011)							
pH	**9.06**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

pH by 9045

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8H0011										
Duplicate (B8H0011-DUP1)		**Source: P807008-12**		Prepared: 08/10/2018 Analyzed: 08/14/2018						
pH	8.65			pH Units		8.92			3.07	20

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			No subcontracted Samples found in data set.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL WO#: P807010

Client Name / Address	LANGAN 515 S. FLOWER ST. #2860 LOS ANGELES, CA 90071
Project Manager	BRAD McCardell / Neil Shukla
Email	~~ebilyeu@~~ bmccardell@Langan.com
Phone	909 - 772 - 8227
Project Name/Number	AGUA MANSA 721013501
P.O. Number	721013501
Sampled By	EROS A. BILYEU

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: VOCs 8260	CAM 17 CHROMIUM VI 7199	Metals 6010	SVOCs 8270 ~~PAHs 8270 SIM~~	PAHs 8270 SIM
1	~~WCP-SB-2-1~~	~~7/16/18~~	~~1230~~	~~S~~	~~8 oz JAR~~					
2	~~WCP-SB-2-5~~	~~7/16/18~~	~~1245~~	~~S~~	~~8 oz JAR~~					
3	~~WCP-SB-2-10~~	~~7/16/18~~	~~1300~~	~~S~~	~~VOA's + 8 oz JARS~~					
4	TBS-2018-07-16	7/16/18	0800	W	VOAs	X				
5	MAP-SB-2-1	7/16/18	1230	S	8 oz JAR					X
6	MAP-SB-2-5	7/16/18	1245	S	8 oz JAR					X
7	MAP-SB-2-10	7/16/18	1300	S	VOAs + 8 oz JAR	X	X	X	X	X
8										
9										
10										

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	~~STD~~ 5 day	RUSH 24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY

Signature: [signature]
Print: EROS D. Bilyeu
Company: LANGAN
DATE: 7/17/18
TIME: 0727

RECEIVED BY

Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/17/18
TIME: 1004

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-2949

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807010

Cooler 1 OF 1

Client Langan

Date Received: 7/17/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	5.9	0.0	5.9	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED ⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ⊗ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm	X		

NOTES

Initials	Date	Initials	Date
MW	7/17/18		

Performance Analytical Laboratories, Inc.

ELAP 2960

July 24, 2018

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Agua Mansa

Work Order: P807010

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/17/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 13

Qualifiers and Definitions 27

Chain of Custody PDF 28

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807010-02	MAP-SB-2-1		Solid	07/16/2018	07/17/2018
P807010-03	MAP-SB-2-5		Solid	07/16/2018	07/17/2018
P807010-04	MAP-SB-2-10		Solid	07/16/2018	07/17/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-1 **P807010-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193425)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	67%			30-120	07/18/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	71%			27-125	07/18/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	63%			33-155	07/18/2018	EPA 8270CM	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-5 **P807010-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193425)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	60%			30-120	07/18/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	69%			27-125	07/18/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	68%			33-155	07/18/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-10 **P807010-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193551)							
Antimony	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**4.72**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**57.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**17.4**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**8.10**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**13.3**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Lead	**8.91**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/23/2018	EPA 6010B	
Nickel	**14.0**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	**4.43**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**29.5**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**38.4**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	101%			60-140	07/22/2018	EPA 8015B (M)	
Mercury_Subcontract (Batch ID: QC1193633)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-10 (Continued) **P807010-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Mercury_Subcontract (Batch ID: QC1193633) (Continued)							
Mercury	ND	mg/Kg	1	0.14	07/24/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193425)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/18/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	58%			30-120	07/18/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	69%			27-125	07/18/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	69%			33-155	07/18/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193424)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	L

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-10 (Continued) **P807010-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193424) (Continued)							
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/18/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/18/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/18/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/18/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/18/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/18/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-10 (Continued) **P807010-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193424) (Continued)							
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/18/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/18/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/18/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/18/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/18/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	86%			34-143	07/18/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	67%			41-125	07/18/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	78%			13-153	07/18/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	70%			27-125	07/18/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	85%			10-110	07/18/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	83%			33-155	07/18/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-10 (Continued) **P807010-04 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0018)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Acetone	**120**	µg/Kg	1	38	07/20/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	94	07/20/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	9.4	07/20/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	38	07/20/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	9.4	07/20/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	9.4	07/20/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	9.4	07/20/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-10 (Continued) **P807010-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0018) (Continued)							
1,2-Dichloropropane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	9.4	07/20/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	9.4	07/20/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	9.4	07/20/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	19	07/20/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	38	07/20/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	19	07/20/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	38	07/20/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	47	07/20/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	15	07/20/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-10 (Continued) **P807010-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0018) (Continued)							
Trichloroethene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.9	07/20/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	3.8	07/20/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	5.6	07/20/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	101%			60-140	07/20/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	94.4%			60-140	07/20/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	110%			60-140	07/20/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	99.0%			60-140	07/20/2018	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193551										
LCS (QC1193551LCS1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Vanadium	96.7		0.5	mg/Kg	100	NA	97	80-120		
Lead	101		1	mg/Kg	100	NA	101	80-120		
Antimony	103		3	mg/Kg	100	NA	103	80-120		
Arsenic	98.6		1	mg/Kg	100	NA	99	80-120		
Barium	98.2		1	mg/Kg	100	NA	98	80-120		
Beryllium	91.5		0.5	mg/Kg	100	NA	92	80-120		
Cadmium	97.8		0.5	mg/Kg	100	NA	98	80-120		
Chromium	96.1		1	mg/Kg	100	NA	96	80-120		
Copper	98.7		1	mg/Kg	100	NA	99	80-120		
Zinc	103		5	mg/Kg	100	NA	103	80-120		
Molybdenum	91.5		1	mg/Kg	100	NA	92	80-120		
Nickel	101		1.5	mg/Kg	100	NA	101	80-120		
Selenium	89.4		3	mg/Kg	100	NA	89	80-120		
Silver	96.6		0.5	mg/Kg	100	NA	97	80-120		
Thallium	96.2		3	mg/Kg	100	NA	96	80-120		
Cobalt	101		0.5	mg/Kg	100	NA	101	80-120		
Method Blank (QC1193551MB1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Nickel	ND		1.5	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Copper	ND		1	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Vanadium	ND		0.5	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193551 (Continued)										
MS (QC1193551MS1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Arsenic	101		1	mg/Kg	100	5.34	96	75-125		
Antimony	60.1	M	3	mg/Kg	100	5.07	55	75-125		
Barium	175		1	mg/Kg	100	78.4	97	75-125		
Lead	109		1	mg/Kg	100	15.8	93	75-125		
Cadmium	88.5		0.5	mg/Kg	100	ND	89	75-125		
Chromium	105		1	mg/Kg	100	17.2	88	75-125		
Cobalt	97.7		0.5	mg/Kg	100	8.53	89	75-125		
Copper	109		1	mg/Kg	100	13.4	96	75-125		
Beryllium	87.1		0.5	mg/Kg	100	ND	87	75-125		
Molybdenum	83.2		1	mg/Kg	100	0.24	83	75-125		
Zinc	151		5	mg/Kg	100	54.6	96	75-125		
Nickel	101		1.5	mg/Kg	100	11.4	90	75-125		
Vanadium	124		0.5	mg/Kg	100	31.2	93	75-125		
Thallium	88.1		3	mg/Kg	100	3.27	85	75-125		
Silver	90.4		0.5	mg/Kg	100	ND	90	75-125		
Selenium	96.3		3	mg/Kg	100	5.66	91	75-125		
MSD (QC1193551MSD1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Molybdenum	79.6		1	mg/Kg	100	0.24	79	75-125	4.4	20
Zinc	139		5	mg/Kg	100	54.6	84	75-125	8.3	20
Vanadium	118		0.5	mg/Kg	100	31.2	87	75-125	5	20
Thallium	83.0		3	mg/Kg	100	3.27	80	75-125	6	20
Silver	86.3		0.5	mg/Kg	100	ND	86	75-125	4.6	20
Nickel	95.1		1.5	mg/Kg	100	11.4	84	75-125	6	20
Lead	102		1	mg/Kg	100	15.8	86	75-125	6.6	20
Copper	104		1	mg/Kg	100	13.4	91	75-125	4.7	20
Cobalt	93.8		0.5	mg/Kg	100	8.53	85	75-125	4.1	20
Chromium	99.7		1	mg/Kg	100	17.2	83	75-125	5.2	20
Cadmium	83.9		0.5	mg/Kg	100	ND	84	75-125	5.3	20
Beryllium	85.2		0.5	mg/Kg	100	ND	85	75-125	2.2	20
Barium	162		1	mg/Kg	100	78.4	84	75-125	7.7	20
Selenium	89.3		3	mg/Kg	100	5.66	84	75-125	7.5	20
Arsenic	93.0		1	mg/Kg	100	5.34	88	75-125	8.2	20
Antimony	52.8	M	3	mg/Kg	100	5.07	48	75-125	12.9	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0013										
Blank (B8G0013-BLK1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.09			mg/kg	2.00		104	60-140		
LCS (B8G0013-BS1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	46.0		2.50	mg/kg	50.0		91.9	70-130		
Surrogate: n-Octacosane (c28)	2.09			mg/kg	2.00		104	60-140		
LCS Dup (B8G0013-BSD1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	47.1		2.50	mg/kg	50.0		94.3	70-130	2.52	20
Surrogate: n-Octacosane (c28)	2.05			mg/kg	2.00		102	60-140		
Matrix Spike (B8G0013-MS1)		**Source: P807011-03**		Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	43.7		2.50	mg/kg	50.0	2.81	81.8	70-130		
Surrogate: n-Octacosane (c28)	2.00			mg/kg	2.00		99.8	60-140		
Matrix Spike Dup (B8G0013-MSD1)		**Source: P807011-03**		Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	44.5		2.50	mg/kg	50.0	2.81	83.4	70-130	1.72	20
Surrogate: n-Octacosane (c28)	2.02			mg/kg	2.00		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193633										
LCS (QC1193633LCS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Mercury	0.80		0.14	mg/Kg	0.83	NA	96	80-120		
Method Blank (QC1193633MB1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193633MS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Mercury	0.85		0.14	mg/Kg	0.83	0.03	99	75-125		
MSD (QC1193633MSD1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Mercury	0.81		0.14	mg/Kg	0.83	0.03	94	75-125	4.8	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

PAH (SIM)_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193425										
LCS (QC1193425LCS1)		**Source: NA**		Prepared & Analyzed: 07/18/2018						
Benzo(g,h,i)perylene	46		10	ug/Kg	50	NA	92	54-135		
Fluorene	51		10	ug/Kg	50	NA	102	63-130		
1-Methylnaphthalene	48		10	ug/Kg	50	NA	96	38-130		
2-Methylnaphthalene	51		10	ug/Kg	50	NA	102	59-130		
Acenaphthene	46		10	ug/Kg	50	NA	92	58-130		
Acenaphthylene	51		10	ug/Kg	50	NA	102	52-130		
Anthracene	50		10	ug/Kg	50	NA	100	55-136		
Benz(a)anthracene	56		10	ug/Kg	50	NA	112	61-147		
Benzo(a)pyrene	56		10	ug/Kg	50	NA	112	36-168		
Benzo(b)fluoranthene	55		10	ug/Kg	50	NA	110	63-147		
Dibenz(a,h)anthracene	43		10	ug/Kg	50	NA	86	52-144		
Benzo(k)fluoranthene	53		10	ug/Kg	50	NA	106	64-142		
Chrysene	48		10	ug/Kg	50	NA	96	66-130		
Naphthalene	46		10	ug/Kg	50	NA	92	50-130		
Fluoranthene	56		10	ug/Kg	50	NA	112	68-139		
Phenanthrene	51		10	ug/Kg	50	NA	102	65-132		
Indeno(1,2,3-cd)pyrene	51		10	ug/Kg	50	NA	102	58-144		
Pyrene	56		10	ug/Kg	50	NA	112	68-134		
Surrogate: 2-Fluorobiphenyl (SUR)	42.859			ug/Kg	50	NA	86	30-120		
Surrogate: p-Terphenyl (SUR)	45.575			ug/Kg	50	NA	91	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	45.645			ug/Kg	50	NA	91	27-125		
Method Blank (QC1193425MB1)		**Source: NA**		Prepared & Analyzed: 07/18/2018						
Indeno(1,2,3-cd)pyrene	ND		10	ug/Kg		NA		-		
Benzo(a)pyrene	ND		10	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
Phenanthrene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Fluorene	ND		10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Pyrene	ND		10	ug/Kg		NA		-		
Fluoranthene	ND		10	ug/Kg		NA		-		
Chrysene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Acenaphthene	ND		10	ug/Kg		NA		-		
Acenaphthylene	ND		10	ug/Kg		NA		-		
Surrogate: Nitrobenzene-d5 (SUR)	37.404			ug/Kg	50	NA	75	27-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

PAH (SIM)_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193425 (Continued)										
Method Blank (QC1193425MB1)		**Source: NA**		Prepared & Analyzed: 07/18/2018						
Surrogate: p-Terphenyl (SUR)	46.356			ug/Kg	50	NA	93	33-155		
Surrogate: 2-Fluorobiphenyl (SUR)	36.228			ug/Kg	50	NA	72	30-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193424										
LCS (QC1193424LCS1)		**Source: NA**		Prepared & Analyzed: 07/18/2018						
2,4-Dimethylphenol	1300	L	250	ug/Kg	2000	NA	65	68-120		
Pentachlorophenol	1200		1200	ug/Kg	2000	NA	60	29-138		
4-Chloro-3-methylphenol	1500		250	ug/Kg	2000	NA	75	55-129		
3 and 4-Methylphenol (m and p-Cresol)	1500		400	ug/Kg	2000	NA	75	55-126		
Acenaphthene	1400		250	ug/Kg	2000	NA	70	70-113		
2,4-Dinitrotoluene	1400		250	ug/Kg	2000	NA	70	68-115		
Benzo(b)fluoranthene	1400		250	ug/Kg	2000	NA	70	62-132		
2,4,5-Trichlorophenol	1500		250	ug/Kg	2000	NA	75	59-121		
1,4-Dichlorobenzene	1200	L	250	ug/Kg	2000	NA	60	67-113		
1,2,4-Trichlorobenzene	1200		250	ug/Kg	2000	NA	60	57-112		
2-Chlorophenol	1300		250	ug/Kg	2000	NA	65	61-120		
4-Nitrophenol	1500		250	ug/Kg	2000	NA	75	30-130		
Pyrene	1500		250	ug/Kg	2000	NA	75	73-131		
Phenol	1400		250	ug/Kg	2000	NA	70	55-131		
N-Nitrosodi-n-propylamine (NDPA)	1400		250	ug/Kg	2000	NA	70	53-134		
Chrysene	1300		250	ug/Kg	2000	NA	65	63-133		
Surrogate: Nitrobenzene-d5 (SUR)	1384.722			ug/Kg	2000	NA	69	27-125		
Surrogate: 2-Fluorophenol (SUR)	1421.733			ug/Kg	2000	NA	71	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1401.647			ug/Kg	2000	NA	70	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1664.323			ug/Kg	2000	NA	83	34-143		
Surrogate: p-Terphenyl (SUR)	1498.758			ug/Kg	2000	NA	75	33-155		
Surrogate: Phenol-d5 (SUR)	1584.478			ug/Kg	2000	NA	79	10-110		
Method Blank (QC1193424MB1)		**Source: NA**		Prepared & Analyzed: 07/18/2018						
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		
Acenaphthene	ND		250	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		
Benz(a)anthracene	ND		250	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Acenaphthylene	ND		250	ug/Kg		NA		-		
3-Nitroaniline	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193424 (Continued)										
Method Blank (QC1193424MB1)		**Source: NA**			Prepared & Analyzed: 07/18/2018					
4-Nitrophenol	ND		250	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
Fluorene	ND		250	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Dibenzofuran	ND		250	ug/Kg		NA		-		
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		
Chrysene	ND		250	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		
Total Cresol	ND		400	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
Phenol	ND		250	ug/Kg		NA		-		
Phenanthrene	ND		250	ug/Kg		NA		-		
Nitrobenzene	ND		1200	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193424 (Continued)										
Method Blank (QC1193424MB1)		**Source: NA**		Prepared & Analyzed: 07/18/2018						
Naphthalene	ND		250	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
Hexachloroethane	ND		250	ug/Kg		NA		-		
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
Surrogate: 2-Fluorophenol (SUR)	1766.509			ug/Kg	2000	NA	88	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1720.457			ug/Kg	2000	NA	86	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	2070.195			ug/Kg	2000	NA	104	34-143		
Surrogate: p-Terphenyl (SUR)	1909.461			ug/Kg	2000	NA	95	33-155		
Surrogate: Phenol-d5 (SUR)	1903.323			ug/Kg	2000	NA	95	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1706.462			ug/Kg	2000	NA	85	27-125		
MS (QC1193424MS1)		**Source: NA**		Prepared & Analyzed: 07/18/2018						
Acenaphthene	1600		250	ug/Kg	2000	ND	80	57-99		
Pyrene	1800		250	ug/Kg	2000	ND	90	53-129		
Phenol	1700		250	ug/Kg	2000	ND	85	46-116		
Pentachlorophenol	1300		1200	ug/Kg	2000	ND	65	43-120		
N-Nitrosodi-n-propylamine (NDPA)	1600		250	ug/Kg	2000	ND	80	41-127		
Benzo(b)fluoranthene	1900		250	ug/Kg	2000	ND	95	59-126		
4-Nitrophenol	1700		250	ug/Kg	2000	ND	85	37-107		
4-Chloro-3-methylphenol	1900		250	ug/Kg	2000	ND	95	33-120		
3 and 4-Methylphenol (m and p-Cresol)	1800		400	ug/Kg	2000	ND	90	33-116		
2-Chlorophenol	1600		250	ug/Kg	2000	ND	80	42-102		
2,4-Dinitrotoluene	1700		250	ug/Kg	2000	ND	85	48-109		
2,4-Dimethylphenol	1600		250	ug/Kg	2000	ND	80	37-105		
Chrysene	1800		250	ug/Kg	2000	ND	90	68-120		
2,4,5-Trichlorophenol	1700		250	ug/Kg	2000	ND	85	44-108		
1,2,4-Trichlorobenzene	1500		250	ug/Kg	2000	ND	75	35-93		
1,4-Dichlorobenzene	1500		250	ug/Kg	2000	ND	75	39-95		
Surrogate: 2,4,6-Tribromophenol (SUR)	1876.702			ug/Kg	2000	NA	94	34-143		
Surrogate: p-Terphenyl (SUR)	1689.272			ug/Kg	2000	NA	84	33-155		
Surrogate: Phenol-d5 (SUR)	1793.425			ug/Kg	2000	NA	90	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1622.288			ug/Kg	2000	NA	81	27-125		
Surrogate: 2-Fluorophenol (SUR)	1674.087			ug/Kg	2000	NA	84	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1561.923			ug/Kg	2000	NA	78	41-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193424 (Continued)										
MSD (QC1193424MSD1)		**Source: NA**		Prepared & Analyzed: 07/18/2018						
1,4-Dichlorobenzene	1700		250	ug/Kg	2000	ND	85	39-95	12.5	30
Pyrene	2000		250	ug/Kg	2000	ND	100	53-129	10.5	30
Acenaphthene	1800		250	ug/Kg	2000	ND	90	57-99	11.8	30
2,4,5-Trichlorophenol	2000		250	ug/Kg	2000	ND	100	44-108	16.2	30
2,4-Dimethylphenol	1700		250	ug/Kg	2000	ND	85	37-105	6.1	30
2,4-Dinitrotoluene	1900		250	ug/Kg	2000	ND	95	48-109	11.1	30
2-Chlorophenol	1800		250	ug/Kg	2000	ND	90	42-102	11.8	30
1,2,4-Trichlorobenzene	1700		250	ug/Kg	2000	ND	85	35-93	12.5	30
4-Nitrophenol	1900		250	ug/Kg	2000	ND	95	37-107	11.1	30
4-Chloro-3-methylphenol	2000		250	ug/Kg	2000	ND	100	33-120	5.1	30
Benzo(b)fluoranthene	2100		250	ug/Kg	2000	ND	105	59-126	10	30
Chrysene	2000		250	ug/Kg	2000	ND	100	68-120	10.5	30
N-Nitrosodi-n-propylamine (NDPA)	1900		250	ug/Kg	2000	ND	95	41-127	17.1	30
Pentachlorophenol	1400		1200	ug/Kg	2000	ND	70	43-120	7.4	30
Phenol	1900		250	ug/Kg	2000	ND	95	46-116	11.1	30
3 and 4-Methylphenol (m and p-Cresol)	2000		400	ug/Kg	2000	ND	100	33-116	10.5	30
Surrogate: 2,4,6-Tribromophenol (SUR)	2022.618			ug/Kg	2000	NA	101	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1656.017			ug/Kg	2000	NA	83	41-125		
Surrogate: Nitrobenzene-d5 (SUR)	1727.936			ug/Kg	2000	NA	86	27-125		
Surrogate: Phenol-d5 (SUR)	1905.638			ug/Kg	2000	NA	95	10-110		
Surrogate: p-Terphenyl (SUR)	1766.844			ug/Kg	2000	NA	88	33-155		
Surrogate: 2-Fluorophenol (SUR)	1757.363			ug/Kg	2000	NA	88	13-153		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0018										
Blank (B8G0018-BLK1)				Prepared & Analyzed: 07/20/2018						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0018 (Continued)										
Blank (B8G0018-BLK1)				Prepared & Analyzed: 07/20/2018						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		8.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	47			µg/Kg	50.0		94.5	60-140		
Surrogate: 1,2-Dichloroethane-d4	53			µg/Kg	50.0		106	60-140		
Surrogate: Toluene-d8	51			µg/Kg	50.0		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0018 (Continued)										
LCS (B8G0018-BS1)				Prepared & Analyzed: 07/20/2018						
Benzene	51		1.0	µg/Kg	50.0		102	70-130		
Bromobenzene	49		1.0	µg/Kg	50.0		98.8	70-130		
Bromodichloromethane	51		1.0	µg/Kg	50.0		102	70-130		
Bromoform	48		1.0	µg/Kg	50.0		95.7	70-130		
Chlorobenzene	49		1.0	µg/Kg	50.0		98.4	70-130		
Chloroethane	51		5.0	µg/Kg	50.0		102	70-130		
Chloroform	49		1.0	µg/Kg	50.0		98.8	70-130		
4-Chlorotoluene	52		1.0	µg/Kg	50.0		103	70-130		
Dibromomethane	51		1.0	µg/Kg	50.0		102	70-130		
1,2-Dichlorobenzene	50		1.0	µg/Kg	50.0		99.4	70-130		
1,1-Dichloroethene	52		1.0	µg/Kg	50.0		104	70-130		
1,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.0	70-130		
2,2-Dichloropropane	53		1.0	µg/Kg	50.0		106	70-130		
1,1-Dichloropropene	50		1.0	µg/Kg	50.0		100	70-130		
Diethyl Ether	47		5.0	µg/Kg	50.0		94.9	70-130		
Diisopropyl Ether (DIPE)	51		1.0	µg/Kg	50.0		102	70-130		
Ethylbenzene	53		1.0	µg/Kg	50.0		106	70-130		
Hexachloro-1,3-Butadiene	51		1.0	µg/Kg	50.0		103	70-130		
Methylene Chloride	52		10	µg/Kg	50.0		104	70-130		
Methyl-t-Butyl Ether (MTBE)	50		1.0	µg/Kg	50.0		99.9	70-130		
Naphthalene	49		10	µg/Kg	50.0		98.8	70-130		
Styrene	53		1.0	µg/Kg	50.0		107	70-130		
tert-Butylbenzene	51		1.0	µg/Kg	50.0		102	70-130		
Tetrachloroethene	50		1.0	µg/Kg	50.0		99.5	70-130		
Toluene	52		1.0	µg/Kg	50.0		104	70-130		
1,2,3-Trichlorobenzene	51		1.0	µg/Kg	50.0		102	70-130		
Trichloroethene	50		1.0	µg/Kg	50.0		99.7	70-130		
1,3,5-Trimethylbenzene	54		1.0	µg/Kg	50.0		107	70-130		
Vinyl Chloride	49		1.0	µg/Kg	50.0		98.5	70-130		
Surrogate: Dibromofluoromethane	52			µg/Kg	50.0		104	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		99.2	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0018 (Continued)										
LCS Dup (B8G0018-BSD1)				Prepared & Analyzed: 07/20/2018						
Benzene	50		1.0	µg/Kg	50.0		101	70-130	1.17	20
Bromobenzene	49		1.0	µg/Kg	50.0		98.7	70-130	0.122	20
Bromodichloromethane	50		1.0	µg/Kg	50.0		101	70-130	0.967	20
Bromoform	49		1.0	µg/Kg	50.0		97.6	70-130	1.99	20
Chlorobenzene	49		1.0	µg/Kg	50.0		97.6	70-130	0.796	20
Chloroethane	48		5.0	µg/Kg	50.0		95.5	70-130	6.80	20
Chloroform	49		1.0	µg/Kg	50.0		97.4	70-130	1.51	20
4-Chlorotoluene	52		1.0	µg/Kg	50.0		103	70-130	0.0387	20
Dibromomethane	50		1.0	µg/Kg	50.0		99.9	70-130	2.10	20
1,2-Dichlorobenzene	50		1.0	µg/Kg	50.0		99.1	70-130	0.343	20
1,1-Dichloroethene	51		1.0	µg/Kg	50.0		102	70-130	1.57	20
1,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.9	70-130	0.905	20
2,2-Dichloropropane	52		1.0	µg/Kg	50.0		103	70-130	2.75	20
1,1-Dichloropropene	50		1.0	µg/Kg	50.0		101	70-130	0.338	20
Diethyl Ether	48		5.0	µg/Kg	50.0		95.2	70-130	0.274	20
Diisopropyl Ether (DIPE)	50		1.0	µg/Kg	50.0		101	70-130	1.06	20
Ethylbenzene	52		1.0	µg/Kg	50.0		104	70-130	1.64	20
Hexachloro-1,3-Butadiene	43		1.0	µg/Kg	50.0		86.9	70-130	16.6	20
Methylene Chloride	52		10	µg/Kg	50.0		104	70-130	0.0960	20
Methyl-t-Butyl Ether (MTBE)	50		1.0	µg/Kg	50.0		100	70-130	0.460	20
Naphthalene	50		10	µg/Kg	50.0		99.2	70-130	0.444	20
Styrene	53		1.0	µg/Kg	50.0		105	70-130	1.25	20
tert-Butylbenzene	48		1.0	µg/Kg	50.0		96.2	70-130	5.62	20
Tetrachloroethene	48		1.0	µg/Kg	50.0		96.9	70-130	2.67	20
Toluene	51		1.0	µg/Kg	50.0		103	70-130	0.756	20
1,2,3-Trichlorobenzene	48		1.0	µg/Kg	50.0		95.1	70-130	7.16	20
Trichloroethene	50		1.0	µg/Kg	50.0		101	70-130	1.06	20
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		98.9	70-130	8.20	20
Vinyl Chloride	48		1.0	µg/Kg	50.0		96.5	70-130	2.09	20
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		99.7	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		101	60-140		
Surrogate: Toluene-d8	51			µg/Kg	50.0		101	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL WO#: P807010

Client Name / Address	LANGAN 515 S. FLOWER ST. #2860 LOS ANGELES, CA 90071
Project Manager	BRAD McCardell / Neil Shukla
Email	~~ebilyeu@~~ bmccardell@Langan.com
Phone	909 - 772 - 8227
Project Name/Number	AGUA MANSA 721013501
P.O. Number	721013501
Sampled By	EROS A. BILYEU

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: VOCs 8260 B	CAM 17 Metals (CCR Title 22)	Metals + Hex Cr (CCR Title 22)	SVOCs + PAHs 8270 SIM	PAHs 8270 SIM									
1	~~WCP-SB-2-1~~	~~7/16/18~~	~~1230~~	~~S~~	~~8 oz JAR~~														
2	~~WCP-SB-2-5~~	~~7/16/18~~	~~1245~~	~~S~~	~~8 oz JAR~~														
3	~~WCP-SB-2-10~~	~~7/16/18~~	~~1300~~	~~S~~	~~VOA's + 8 oz JARS~~														
4	TBS-2018-07-16	7/16/18	0800	W	VOAs	X													
5	MAP-SB-2-1	7/16/18	1230	S	8 oz JAR					X									
6	MAP-SB-2-5	7/16/18	1245	S	8 oz JAR					X									
7	MAP-SB-2-10	7/16/18	1300	S	VOAs + 8 oz JAR	X	X	X	X	X									
8																			
9																			
10																			

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	~~STD~~ 5 day	RUSH 24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY

Signature: [signature]
Print: EROS D. Bilyeu
Company: LANGAN
DATE: 7/17/18
TIME: 0727

RECEIVED BY

Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/17/18
TIME: 1004

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-2978

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807010

Cooler 1 OF 1

Client Langan

Date Received: 7/17/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	5.9	0.0	5.9	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ⊗ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm	X		

NOTES

Initials	Date	Initials	Date
MW	7/17/18		

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

404674

Work Order ID: P807010

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P807010-02 **Matrix: Solid** **Sampled: 07/16/2018 12:30**			
S_PAH 8270 SIM	5	07/24/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A)			
Sample ID: P807010-03 **Matrix: Solid** **Sampled: 07/16/2018 12:45**			
S_PAH 8270 SIM	5	07/24/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A)			
Sample ID: P807010-04 **Matrix: Solid** **Sampled: 07/16/2018 13:00**			
S_Mercury 7471	5	07/24/2018 15:00	
S_Metals 6010B Title 22	5	07/24/2018 15:00	
S_PAH 8270 SIM	5	07/24/2018 15:00	
S_SVOA 8270C	5	07/24/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (F) Glass Jar, 8 oz (G)			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	7/18/18	936	Sam Ham	7/18/18	9:36
Sam Ham	7/18/18	1046	Lucy Lutwin	7/18/18	1055

2.6 4.9

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: _____

Date Received: 07/18/18 Sampler's Name Present: ☐ Yes ☑ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 4.9 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 2.6 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	✓		
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 7/18/18

Performance Analytical Laboratories, Inc.

ELAP 2960

July 26, 2018

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Agua Mansa

Work Order: P807011

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/18/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 28

Qualifiers and Definitions 36

Chain of Custody PDF 37

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807011-01	SW-16-1'		Solid	07/17/2018	07/18/2018
P807011-02	SW-16-2'		Solid	07/17/2018	07/18/2018
P807011-03	SW-7-1'		Solid	07/17/2018	07/18/2018
P807011-04	SW-7-5'		Solid	07/17/2018	07/18/2018
P807011-05	SW-10-1'		Solid	07/17/2018	07/18/2018
P807011-06	SW-10-5'		Solid	07/17/2018	07/18/2018
P807011-07	SW-10-5'-White		Solid	07/17/2018	07/18/2018
P807011-08	SW-13-1'		Solid	07/17/2018	07/18/2018
P807011-09	SW-13-1'-White		Solid	07/17/2018	07/18/2018
P807011-10	SW-13-5'		Solid	07/17/2018	07/18/2018
P807011-11	SW-13-5'-White		Solid	07/17/2018	07/18/2018
P807011-12	SW-9-1'		Solid	07/17/2018	07/18/2018
P807011-13	SW-9-5'		Solid	07/17/2018	07/18/2018
P807011-14	SW-14-1'		Solid	07/17/2018	07/18/2018
P807011-15	SW-14-5'		Solid	07/17/2018	07/18/2018

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-16-1' **P807011-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C28-C33	**5.14**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C34-C40	**2.56**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	94.9%			60-140	07/22/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	**533**	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193719)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**3.04**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Barium	**61.4**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/24/2018	EPA 6010B	
Cadmium	**0.83**	mg/Kg	1	0.5	07/24/2018	EPA 6010B	
Chromium	**26.3**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Cobalt	**8.72**	mg/Kg	1	0.5	07/24/2018	EPA 6010B	
Copper	**17.7**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**30.6**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**16.4**	mg/Kg	1	1.5	07/24/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-16-1' (Continued) **P807011-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22_Subcontract (Batch ID: QC1193557) (Continued)							
Selenium	**13.9**	mg/Kg	1	3	07/24/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/24/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Vanadium	**32.1**	mg/Kg	1	0.5	07/24/2018	EPA 6010B	
Zinc	**40.9**	mg/Kg	1	5	07/24/2018	EPA 6010B	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	70%			50-150	07/25/2018	EPA 8082	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-16-2' **P807011-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C28-C33	**2.98**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	99.7%			60-140	07/22/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	**1470**	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193719)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**8.55**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Barium	**65.5**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/24/2018	EPA 6010B	
Cadmium	**1.37**	mg/Kg	1	0.5	07/24/2018	EPA 6010B	
Chromium	**26.8**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Cobalt	**8.80**	mg/Kg	1	0.5	07/24/2018	EPA 6010B	
Copper	**19.0**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**30.7**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**16.2**	mg/Kg	1	1.5	07/24/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-16-2' (Continued) **P807011-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22_Subcontract (Batch ID: QC1193557) (Continued)							
Selenium	**9.61**	mg/Kg	1	3	07/24/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/24/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Vanadium	**34.4**	mg/Kg	1	0.5	07/24/2018	EPA 6010B	
Zinc	**37.5**	mg/Kg	1	5	07/24/2018	EPA 6010B	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	80%			50-150	07/25/2018	EPA 8082	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-7-1' **P807011-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C28-C33	**5.94**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C34-C40	**2.72**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	106%			60-140	07/22/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193719)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**12.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**66.0**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**23.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**10.4**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**19.8**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**11.6**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**17.2**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	**6.24**	mg/Kg	1	3	07/23/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-7-1' (Continued) **P807011-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22_Subcontract (Batch ID: QC1193557) (Continued)							
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**37.3**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**50.0**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	85%			50-150	07/25/2018	EPA 8082	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-7-5' **P807011-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	106%			60-140	07/22/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193719)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**3.64**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**53.7**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**21.6**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**9.06**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**19.6**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**8.86**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**18.4**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-7-5' (Continued) **P807011-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22_Subcontract (Batch ID: QC1193557) (Continued)							
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**31.8**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**43.0**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	59%			50-150	07/25/2018	EPA 8082	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-10-1' **P807011-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C15-C16	**6.83**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C17-C18	**16.5**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C19-C20	**21.4**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C21-C22	**28.4**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C23-C24	**39.5**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C25-C27	**28.5**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C28-C33	**162**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C34-C40	**91.3**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	108%			60-140	07/22/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	**490**	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193719)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**2.44**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**38.3**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**12.5**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**5.20**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**12.3**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**19.7**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**7.97**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-10-1' (Continued) **P807011-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22_Subcontract (Batch ID: QC1193557) (Continued)							
Selenium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**22.2**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**30.4**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/24/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	72%			50-150	07/24/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-10-5' **P807011-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C28-C33	**7.86**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C34-C40	**4.31**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	103%			60-140	07/22/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193719)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**5.08**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**49.0**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**11.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**5.46**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**8.85**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**15.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**8.23**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-10-5' (Continued) **P807011-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22_Subcontract (Batch ID: QC1193557) (Continued)							
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	**3.18**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**23.5**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**31.7**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	81%			50-150	07/25/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-10-5'-White **P807011-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C28-C33	**4.86**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	109%			60-140	07/22/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	**2410**	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193719)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**25.6**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**96.3**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	**13.1**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**15.8**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**2.73**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**16.6**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**183**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	**2.29**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**5.76**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-10-5'-White (Continued) **P807011-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22_Subcontract (Batch ID: QC1193557) (Continued)							
Selenium	**14.8**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	**0.76**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**19.2**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**145**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	65%			50-150	07/25/2018	EPA 8082	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-13-1' **P807011-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	**1700**	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193719)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	**4.01**	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**3.71**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**72.7**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	**0.61**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**10.9**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**3.20**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**12.9**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**19.4**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**5.62**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	**9.33**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**15.2**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**32.2**	mg/Kg	1	5	07/23/2018	EPA 6010B	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-13-1'-White **P807011-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	**2120**	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193720)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**32.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**85.4**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	**11.4**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**12.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**4.07**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**21.8**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**125**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**5.58**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	**17.0**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**17.0**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**138**	mg/Kg	1	5	07/23/2018	EPA 6010B	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-13-5' **P807011-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193720)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**1.41**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**32.6**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**8.63**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**3.84**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**7.39**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**46.0**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**5.93**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	**6.51**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**20.1**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**27.9**	mg/Kg	1	5	07/23/2018	EPA 6010B	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-13-5'-White **P807011-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	**1730**	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193720)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	**5.86**	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**68.1**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**78.3**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	**28.9**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**11.4**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**2.10**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**18.3**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**514**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	**1.64**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**2.99**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	**16.1**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	**4.53**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**10.8**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**380**	mg/Kg	1	5	07/23/2018	EPA 6010B	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-9-1' **P807011-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.48	07/22/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	103%			60-140	07/22/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	**705**	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193720)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**3.70**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**35.5**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	**0.62**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**13.0**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**5.06**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**10.8**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**17.9**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**8.23**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	**6.50**	mg/Kg	1	3	07/23/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-9-1' (Continued) **P807011-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22_Subcontract (Batch ID: QC1193557) (Continued)							
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**21.4**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**37.6**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	80%			50-150	07/25/2018	EPA 8082	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-9-5' **P807011-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0013)							
C7-C8	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C17-C18	**3.32**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C19-C20	**5.99**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C21-C22	**10.8**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C23-C24	**18.9**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C25-C27	**13.1**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C28-C33	**60.2**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
C34-C40	**25.8**	mg/kg	1	2.50	07/22/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	99.5%			60-140	07/22/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193720)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**1.28**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**31.4**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**11.2**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**5.27**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**8.60**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**3.36**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**8.22**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-9-5' (Continued) **P807011-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22_Subcontract (Batch ID: QC1193557) (Continued)							
Selenium	**3.46**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**21.5**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**28.7**	mg/Kg	1	5	07/23/2018	EPA 6010B	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	81%			50-150	07/25/2018	EPA 8082	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-14-1' **P807011-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193720)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193557)							
Antimony	ND	mg/Kg	1	3	07/24/2018	EPA 6010B	
Arsenic	**3.66**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**46.2**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**15.9**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**6.59**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**13.4**	mg/Kg	1	1	07/24/2018	EPA 6010B	
Lead	**8.67**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/24/2018	EPA 6010B	
Nickel	**10.3**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	**6.54**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**30.3**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**29.7**	mg/Kg	1	5	07/23/2018	EPA 6010B	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-14-5' **P807011-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193660)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/25/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193720)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Metals, Title 22_Subcontract (Batch ID: QC1193558)							
Antimony	**3.35**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Arsenic	**4.57**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Barium	**43.6**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Chromium	**15.3**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Cobalt	**6.74**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Copper	**8.89**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Lead	**5.31**	mg/Kg	1	1	07/23/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/23/2018	EPA 6010B	
Nickel	**10.9**	mg/Kg	1	1.5	07/23/2018	EPA 6010B	
Selenium	**5.95**	mg/Kg	1	3	07/23/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/23/2018	EPA 6010B	
Vanadium	**29.2**	mg/Kg	1	0.5	07/23/2018	EPA 6010B	
Zinc	**26.4**	mg/Kg	1	5	07/23/2018	EPA 6010B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0013										
Blank (B8G0013-BLK1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.09			mg/kg	2.00		104	60-140		
LCS (B8G0013-BS1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	46.0		2.50	mg/kg	50.0		91.9	70-130		
Surrogate: n-Octacosane (c28)	2.09			mg/kg	2.00		104	60-140		
LCS Dup (B8G0013-BSD1)				Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	47.1		2.50	mg/kg	50.0		94.3	70-130	2.52	20
Surrogate: n-Octacosane (c28)	2.05			mg/kg	2.00		102	60-140		
Matrix Spike (B8G0013-MS1)		**Source: P807011-03**		Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	43.7		2.50	mg/kg	50.0	2.81	81.8	70-130		
Surrogate: n-Octacosane (c28)	2.00			mg/kg	2.00		99.8	60-140		
Matrix Spike Dup (B8G0013-MSD1)		**Source: P807011-03**		Prepared: 07/18/2018 Analyzed: 07/21/2018						
Diesel	44.5		2.50	mg/kg	50.0	2.81	83.4	70-130	1.72	20
Surrogate: n-Octacosane (c28)	2.02			mg/kg	2.00		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193660										
Duplicate (QC1193660DUP1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Hexavalent Chromium	561		400	ug/Kg		533		-	5.1	20
LCS (QC1193660LCS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Hexavalent Chromium	42300		400	ug/Kg	40000	NA	106	80-120		
Method Blank (QC1193660MB1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Hexavalent Chromium	ND		400	ug/Kg		NA		-		
MS (QC1193660MS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Hexavalent Chromium	43300		400	ug/Kg	40000	533	107	75-125		
Hexavalent Chromium	42000		400	ug/Kg	40000	533	104	75-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193719										
LCS (QC1193719LCS1)		**Source: NA**		Prepared: 07/25/2018 Analyzed: 07/26/2018						
Mercury	0.82		0.14	mg/Kg	0.83	NA	99	80-120		
Method Blank (QC1193719MB1)		**Source: NA**		Prepared: 07/25/2018 Analyzed: 07/26/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193719MS1)		**Source: NA**		Prepared: 07/25/2018 Analyzed: 07/26/2018						
Mercury	0.72		0.14	mg/Kg	0.83	ND	87	75-125		
MSD (QC1193719MSD1)		**Source: NA**		Prepared: 07/25/2018 Analyzed: 07/26/2018						
Mercury	0.72		0.14	mg/Kg	0.83	ND	87	75-125	0	20
Batch: QC1193720										
LCS (QC1193720LCS1)		**Source: NA**		Prepared: 07/25/2018 Analyzed: 07/26/2018						
Mercury	0.85		0.14	mg/Kg	0.83	NA	102	80-120		
Method Blank (QC1193720MB1)		**Source: NA**		Prepared: 07/25/2018 Analyzed: 07/26/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193720MS1)		**Source: NA**		Prepared: 07/25/2018 Analyzed: 07/26/2018						
Mercury	0.79		0.14	mg/Kg	0.83	ND	95	75-125		
MSD (QC1193720MSD1)		**Source: NA**		Prepared: 07/25/2018 Analyzed: 07/26/2018						
Mercury	0.77		0.14	mg/Kg	0.83	ND	93	75-125	2.6	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals, Title 22_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193557										
LCS (QC1193557LCS1)		**Source: NA**			Prepared: 07/20/2018 Analyzed: 07/23/2018					
Lead	95.7		1	mg/Kg	100	NA	96	80-120		
Thallium	91.2		3	mg/Kg	100	NA	91	80-120		
Antimony	95.8		3	mg/Kg	100	NA	96	80-120		
Arsenic	90.1		1	mg/Kg	100	NA	90	80-120		
Barium	94.7		1	mg/Kg	100	NA	95	80-120		
Beryllium	91.2		0.5	mg/Kg	100	NA	91	80-120		
Cadmium	92.7		0.5	mg/Kg	100	NA	93	80-120		
Chromium	92.7		1	mg/Kg	100	NA	93	80-120		
Cobalt	96.6		0.5	mg/Kg	100	NA	97	80-120		
Copper	95.2		1	mg/Kg	100	NA	95	80-120		
Molybdenum	89.2		1	mg/Kg	100	NA	89	80-120		
Nickel	96.1		1.5	mg/Kg	100	NA	96	80-120		
Silver	93.0		0.5	mg/Kg	100	NA	93	80-120		
Vanadium	92.6		0.5	mg/Kg	100	NA	93	80-120		
Zinc	96.4		5	mg/Kg	100	NA	96	80-120		
Selenium	84.6		3	mg/Kg	100	NA	85	80-120		
Method Blank (QC1193557MB1)		**Source: NA**			Prepared: 07/20/2018 Analyzed: 07/23/2018					
Vanadium	ND		0.5	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Copper	ND		1	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals, Title 22_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193557 (Continued)										
MS (QC1193557MS1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Cadmium	94.3		0.5	mg/Kg	100	ND	94	75-125		
Beryllium	95.4		0.5	mg/Kg	100	ND	95	75-125		
Barium	142		1	mg/Kg	100	57.4	85	75-125		
Arsenic	102		1	mg/Kg	100	3.15	99	75-125		
Antimony	77.6		3	mg/Kg	100	0.92	77	75-125		
Chromium	103		1	mg/Kg	100	13.3	90	75-125		
Selenium	102		3	mg/Kg	100	4.10	98	75-125		
Cobalt	104		0.5	mg/Kg	100	2.76	101	75-125		
Copper	110		1	mg/Kg	100	8.70	101	75-125		
Lead	106		1	mg/Kg	100	7.71	98	75-125		
Nickel	100		1.5	mg/Kg	100	5.19	95	75-125		
Silver	97.1		0.5	mg/Kg	100	ND	97	75-125		
Vanadium	109		0.5	mg/Kg	100	17.5	92	75-125		
Molybdenum	91.9		1	mg/Kg	100	0.92	91	75-125		
Zinc	122		5	mg/Kg	100	34.9	87	75-125		
Thallium	93.2		3	mg/Kg	100	4.72	88	75-125		
MSD (QC1193557MSD1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Antimony	70.1	M	3	mg/Kg	100	0.92	69	75-125	10.2	20
Arsenic	109		1	mg/Kg	100	3.15	106	75-125	6.6	20
Barium	169		1	mg/Kg	100	57.4	112	75-125	17.4	20
Beryllium	97.1		0.5	mg/Kg	100	ND	97	75-125	1.8	20
Cadmium	96.4		0.5	mg/Kg	100	ND	96	75-125	2.2	20
Molybdenum	94.1		1	mg/Kg	100	0.92	93	75-125	2.4	20
Nickel	104		1.5	mg/Kg	100	5.19	99	75-125	3.9	20
Selenium	105		3	mg/Kg	100	4.10	101	75-125	2.9	20
Silver	101		0.5	mg/Kg	100	ND	101	75-125	3.9	20
Thallium	98.4		3	mg/Kg	100	4.72	94	75-125	5.4	20
Vanadium	122		0.5	mg/Kg	100	17.5	105	75-125	11.3	20
Copper	110		1	mg/Kg	100	8.70	101	75-125	0	20
Zinc	144		5	mg/Kg	100	34.9	109	75-125	16.5	20
Cobalt	102		0.5	mg/Kg	100	2.76	99	75-125	1.9	20
Lead	108		1	mg/Kg	100	7.71	100	75-125	1.9	20
Chromium	110		1	mg/Kg	100	13.3	97	75-125	6.6	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals, Title 22_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193558										
LCS (QC1193558LCS1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Cobalt	102		0.5	mg/Kg	100	NA	102	80-120		
Antimony	101		3	mg/Kg	100	NA	101	80-120		
Arsenic	91.9		1	mg/Kg	100	NA	92	80-120		
Barium	95.3		1	mg/Kg	100	NA	95	80-120		
Beryllium	92.5		0.5	mg/Kg	100	NA	93	80-120		
Cadmium	94.9		0.5	mg/Kg	100	NA	95	80-120		
Chromium	93.3		1	mg/Kg	100	NA	93	80-120		
Lead	97.4		1	mg/Kg	100	NA	97	80-120		
Copper	96.0		1	mg/Kg	100	NA	96	80-120		
Zinc	98.4		5	mg/Kg	100	NA	98	80-120		
Vanadium	94.9		0.5	mg/Kg	100	NA	95	80-120		
Thallium	93.2		3	mg/Kg	100	NA	93	80-120		
Silver	94.0		0.5	mg/Kg	100	NA	94	80-120		
Selenium	85.9		3	mg/Kg	100	NA	86	80-120		
Nickel	98.1		1.5	mg/Kg	100	NA	98	80-120		
Molybdenum	91.1		1	mg/Kg	100	NA	91	80-120		
Method Blank (QC1193558MB1)		**Source: NA**		Prepared: 07/20/2018 Analyzed: 07/23/2018						
Selenium	ND		3	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		
Vanadium	ND		0.5	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Copper	ND		1	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals, Title 22_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193558 (Continued)										
MS (QC1193558MS1)		**Source: NA**			Prepared: 07/20/2018 Analyzed: 07/23/2018					
Selenium	86.8		3	mg/Kg	100	5.95	81	75-125		
Nickel	101		1.5	mg/Kg	100	10.9	90	75-125		
Molybdenum	80.1		1	mg/Kg	100	ND	80	75-125		
Lead	92.8		1	mg/Kg	100	5.31	87	75-125		
Copper	104		1	mg/Kg	100	8.89	95	75-125		
Cobalt	95.8		0.5	mg/Kg	100	6.74	89	75-125		
Thallium	84.9		3	mg/Kg	100	0.73	84	75-125		
Cadmium	87.0		0.5	mg/Kg	100	ND	87	75-125		
Vanadium	120		0.5	mg/Kg	100	29.2	91	75-125		
Barium	134		1	mg/Kg	100	43.6	90	75-125		
Arsenic	92.3		1	mg/Kg	100	4.57	88	75-125		
Antimony	47.9	M	3	mg/Kg	100	3.35	45	75-125		
Silver	88.8		0.5	mg/Kg	100	ND	89	75-125		
Beryllium	86.6		0.5	mg/Kg	100	ND	87	75-125		
Zinc	116		5	mg/Kg	100	26.4	90	75-125		
Chromium	102		1	mg/Kg	100	15.3	87	75-125		
MSD (QC1193558MSD1)		**Source: NA**			Prepared: 07/20/2018 Analyzed: 07/23/2018					
Cobalt	92.1		0.5	mg/Kg	100	6.74	85	75-125	3.9	20
Zinc	119		5	mg/Kg	100	26.4	93	75-125	2.6	20
Vanadium	116		0.5	mg/Kg	100	29.2	87	75-125	3.4	20
Thallium	87.8		3	mg/Kg	100	0.73	87	75-125	3.4	20
Silver	86.1		0.5	mg/Kg	100	ND	86	75-125	3.1	20
Selenium	86.9		3	mg/Kg	100	5.95	81	75-125	0.1	20
Nickel	102		1.5	mg/Kg	100	10.9	91	75-125	1	20
Molybdenum	84.1		1	mg/Kg	100	ND	84	75-125	4.9	20
Copper	102		1	mg/Kg	100	8.89	93	75-125	1.9	20
Chromium	98.6		1	mg/Kg	100	15.3	83	75-125	3.4	20
Cadmium	88.9		0.5	mg/Kg	100	ND	89	75-125	2.2	20
Beryllium	86.9		0.5	mg/Kg	100	ND	87	75-125	0.3	20
Barium	130		1	mg/Kg	100	43.6	86	75-125	3	20
Arsenic	93.6		1	mg/Kg	100	4.57	89	75-125	1.4	20
Antimony	46.9	M	3	mg/Kg	100	3.35	44	75-125	2.1	20
Lead	95.8		1	mg/Kg	100	5.31	90	75-125	3.2	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Polychlorinated Biphenyls_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193639										
LCS (QC1193639LCS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1260	520		50	ug/Kg	500	NA	104	70-130		
PCB-1016	560		50	ug/Kg	500	NA	112	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	42.9			ug/Kg	50	NA	86	50-150		
Method Blank (QC1193639MB1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1248	ND		50	ug/Kg		NA		-		
PCB-1260	ND		50	ug/Kg		NA		-		
PCB-1232	ND		50	ug/Kg		NA		-		
PCB-1262	ND		50	ug/Kg		NA		-		
PCB-1254	ND		50	ug/Kg		NA		-		
PCB-1242	ND		50	ug/Kg		NA		-		
PCB-1221	ND		50	ug/Kg		NA		-		
PCB-1016	ND		50	ug/Kg		NA		-		
PCB-1268	ND		50	ug/Kg		NA		-		
Surrogate: Decachlorobiphenyl DCB (SUR)	24.8	S		ug/Kg	50	NA	50	50-150		
MS (QC1193639MS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1260	510		50	ug/Kg	500	ND	102	70-130		
PCB-1016	570		50	ug/Kg	500	ND	114	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	41.5			ug/Kg	50	NA	83	50-150		
MSD (QC1193639MSD1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1260	390	D	50	ug/Kg	500	ND	78	70-130	26.7	20
PCB-1016	440	D	50	ug/Kg	500	ND	88	70-130	25.7	20
Surrogate: Decachlorobiphenyl DCB (SUR)	29.8			ug/Kg	50	NA	60	50-150		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
D	RPD was not within control limits. The sample data was reported without further clarification.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 2

PAL WO#: P807011

Client Name	Langan
Address	515 South Flower Street Suite2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909 7718217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Title 22 Metals 6010/7000	Cr VI 7199	TPH carbon chain 8015	PCBs 8082									
1	SW-16-1'	7/17	0835	S	2/ 8oz. jar	X	X	X	X									
2	SW-16-2'	7/17	0840	S	2/ 8oz. jar	X	X	X	X									
3	SW-7-1'	7/17	0955	S	2/ 8oz. jar	X	X	X	X									
4	SW-7-5'	7/17	10:00	S	2/ 8oz. jar	X	X	X	X									
5	SW-10-1'	7/17	1155	S		X	X	X	X									
6	SW-10-5'	7/17	1200	S		X	X	X	X									
7	SW-10-5'-white	7/17	1200	S		X	X	X	X									
8	SW-13-1'		1300			X	X											
9	SW-13-1'-white		1305			X	X											
10	SW-13-5'		1305			X	X											

REQUESTED ANALYSIS

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): **STD** 5 day | **RUSH** 24 | 48 | 72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	12.6°C MV	

RELINQUISHED BY
Signature: [signature]
Print: NEIL SHUKLA
Company: LANGAN
DATE: 7/18/18
TIME: 11:15 AM

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/18/18
TIME: 1115

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3018

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P807011

Client Name	Langan
Address	515 South Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909 771 8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: Title 22 Metals 6010/7000	CrVI 7199	TPH-carbon chain 8015	PCBs 8082
1	SW-13-5'-white	7/17	1300	S	2/ 8oz. jars	X	X		
2	SW-9-1'	7/17	1430	S	2/ 8oz. jars	X	X	X	X
3	SW-9-5'	7/17	1435	S	2/ 8oz. jars	X	X	X	X
4	SW-14-1'	7/17	1535	S	2/ 8oz. jars	X	X		
5	SW-14-5'	7/17	1540	S	2/ 8oz. jars	X	X		
6									
7									
8									
9									
10									

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	**STD** 5 day	**RUSH** 24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	12.6°C MV	

RELINQUISHED BY

Signature:		**DATE:** 7/18/18
Print:	NEIL SHUKLA	**TIME:** 11:15 a
Company:	LANGAN	

RECEIVED BY

Signature:		**DATE:** 7/18/18
Print:	M Valenzuela	**TIME:** 11 15
Company:	PAL	

RELINQUISHED BY

Signature:		**DATE:**
Print:		**TIME:**
Company:		

RECEIVED BY

Signature:		**DATE:**
Print:		**TIME:**
Company:		

G-3019

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)

**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)

**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807011

Cooler 1 OF 1

Client Langan

Date Received: 7/18/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	12.9	0.0	12.9	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ○ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ○ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)		X	
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MV	7/18/18		

Performance Analytical Laboratories, Inc.

ELAP 2960

August 14, 2018

Change Order Report

Langan
32 Executive Park, Suite 130
Irvine, CA 92614-4721

Re: DTSC Riverside
Project No. : Agua Mansa
Work Order: P807011

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/18/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,

Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 7

Qualifiers and Definitions 8

Exceptions List 9

Chain of Custody PDF 10

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807011-01	SW-16-1'		Solid	07/17/2018	07/18/2018
P807011-02	SW-16-2'		Solid	07/17/2018	07/18/2018
P807011-03	SW-7-1'		Solid	07/17/2018	07/18/2018
P807011-04	SW-7-5'		Solid	07/17/2018	07/18/2018
P807011-05	SW-10-1'		Solid	07/17/2018	07/18/2018
P807011-06	SW-10-5'		Solid	07/17/2018	07/18/2018
P807011-07	SW-10-5'-White		Solid	07/17/2018	07/18/2018
P807011-08	SW-13-1'		Solid	07/17/2018	07/18/2018
P807011-09	SW-13-1'-White		Solid	07/17/2018	07/18/2018
P807011-10	SW-13-5'		Solid	07/17/2018	07/18/2018
P807011-11	SW-13-5'-White		Solid	07/17/2018	07/18/2018
P807011-12	SW-9-1'		Solid	07/17/2018	07/18/2018
P807011-13	SW-9-5'		Solid	07/17/2018	07/18/2018
P807011-14	SW-14-1'		Solid	07/17/2018	07/18/2018
P807011-15	SW-14-5'		Solid	07/17/2018	07/18/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-16-1' **P807011-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0011)							
pH	**7.05**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-16-2' **P807011-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0011)							
pH	**9.12**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-7-1' **P807011-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0011)							
pH	**8.79**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-7-5' **P807011-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0011)							
pH	**9.02**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-10-1' **P807011-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0011)							
pH	**11.3**	pH Units	1		08/14/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-10-5' **P807011-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0011)							
pH	**10.0**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-10-5'-White **P807011-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0011)							
pH	**12.8**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-13-1' **P807011-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0011)							
pH	**11.8**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-13-1'-White **P807011-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0011)							
pH	**12.8**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-13-5' **P807011-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0011)							
pH	**10.0**	pH Units	1		08/14/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-13-5'-White **P807011-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**13.0**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-9-1' **P807011-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**10.8**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-9-5' **P807011-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**9.82**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-14-1' **P807011-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**9.93**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-14-5' **P807011-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**9.67**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

pH by 9045

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8H0011										
Duplicate (B8H0011-DUP1)		**Source: P807008-12**		Prepared: 08/10/2018 Analyzed: 08/14/2018						
pH	8.65			pH Units		8.92			3.07	20
Batch: B8H0012										
Duplicate (B8H0012-DUP1)		**Source: P807011-11**		Prepared: 08/10/2018 Analyzed: 08/14/2018						
pH	13.0			pH Units		13.0			0.308	20

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			No subcontracted Samples found in data set.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 2

PAL WO#: P807011

Client Name	Langan
Address	515 South Flower Street Suite2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909 7718217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Title 22 Metals 6010/7000	Cr VI 7199	TPH carbon chain 8015	PCBs 8082									
1	SW-16-1'	7/17	0835	S	2/ 8oz. jar	X	X	X	X									
2	SW-16-2'	7/17	0840	S	2/ 8oz. jar	X	X	X	X									
3	SW-7-1'	7/17	0955	S	2/ 8oz. jar	X	X	X	X									
4	SW-7-5'	7/17	10:00	S	2/ 8oz. jar	X	X	X	X									
5	SW-10-1'	7/17	1155	S		X	X	X	X									
6	SW-10-5'	7/17	1200	S		X	X	X	X									
7	SW-10-5'-white	7/17	1200	S		X	X	X	X									
8	SW-13-1'		1300			X	X											
9	SW-13-1'-white		1305			X	X											
10	SW-13-5'		1305			X	X											

REQUESTED ANALYSIS

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): **STD** 5 day | **RUSH** 24 | 48 | 72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	12.6°C MV	

RELINQUISHED BY
Signature: [signature]
Print: NEIL SHUKLA
Company: LANGAN
DATE: 7/18/18
TIME: 11:15 AM

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/18/18
TIME: 1115

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3030

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 2 of 2

PAL WO#: P807011

Client Name	Langan
Address	515 South Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909 771 8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: Title 22 Metals 6010/7000	CrVI 7199	TPH-carbon chain 8015	PCBs 8082
1	SW-13-5'-white	7/17	1300	S	2/ 8oz. jars	X	X		
2	SW-9-1'	7/17	1430	S	2/ 8oz. jars	X	X	X	X
3	SW-9-5'	7/17	1435	S	2/ 8oz. jars	X	X	X	X
4	SW-14-1'	7/17	1535	S	2/ 8oz. jars	X	X		
5	SW-14-5'	7/17	1540	S	2/ 8oz. jars	X	X		
6									
7									
8									
9									
10									

G-3031

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	**STD** 5 day	**RUSH** 24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	12.6°C MV	

RELINQUISHED BY

Signature:		**DATE:** 7/18/18
Print:	Neil Shukla	**TIME:** 11:15 a
Company:	Langan	

RECEIVED BY

Signature:		**DATE:** 7/18/18
Print:	M Valenzuela	**TIME:** 11 15
Company:	PAL	

RELINQUISHED BY

Signature:		**DATE:**
Print:		**TIME:**
Company:		

RECEIVED BY

Signature:		**DATE:**
Print:		**TIME:**
Company:		

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)

****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)

****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807011

Cooler 1 OF 1

Client Langan

Date Received: 7/18/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	12.9	0.0	12.9	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ○ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ○ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)		X	
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MV	7/18/18		

Performance Analytical Laboratories, Inc.

ELAP 2960

July 30, 2018

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Agua Mansa

Work Order: P807014

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/20/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 61

Qualifiers and Definitions 73

Chain of Custody PDF 74

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807014-01	SMC-LT-2-5'		Solid	07/19/2018	07/20/2018
P807014-02	SMC-LT-2-iron		Solid	07/19/2018	07/20/2018
P807014-03	SMC-LT-3-1'		Solid	07/19/2018	07/20/2018
P807014-04	SMC-LT-3-5'		Solid	07/19/2018	07/20/2018
P807014-05	SMC-LT-3-10'		Solid	07/19/2018	07/20/2018
P807014-06	GCP-LT-6-1'		Solid	07/19/2018	07/20/2018
P807014-07	GCP-LT-6-5'		Solid	07/19/2018	07/20/2018
P807014-08	GCP-LT-6-10'		Solid	07/19/2018	07/20/2018
P807014-09	GCP-LT-2-1'		Solid	07/19/2018	07/20/2018
P807014-10	GCP-LT-2-5'		Solid	07/19/2018	07/20/2018
P807014-11	GCP-LT-2-10'		Solid	07/19/2018	07/20/2018
P807014-12	GCP-LT-4-1'		Solid	07/19/2018	07/20/2018
P807014-13	GCP-LT-4-5'		Solid	07/19/2018	07/20/2018
P807014-14	GCP-LT-4-10'		Solid	07/19/2018	07/20/2018
P807014-15	GCP-LT-4-15'		Solid	07/19/2018	07/20/2018
P807014-16	GCP-LT-3-1'		Solid	07/19/2018	07/20/2018
P807014-17	GCP-LT-3-5'		Solid	07/19/2018	07/20/2018
P807014-18	GCP-LT-3-10'		Solid	07/19/2018	07/20/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-LT-2-5' **P807014-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**12.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**45.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	**4.10**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**27.1**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**15.7**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**65.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**125**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	**1.22**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**17.5**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**13.8**	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	**5.18**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**35.6**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**62.5**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-LT-2-iron **P807014-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**41.8**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**18.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	**15.4**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**123**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**85.5**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**377**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**48.9**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	**10.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**80.0**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**61.6**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**9.30**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							
Hexavalent Chromium	**1380**	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-LT-3-1' **P807014-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**8.15**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**307**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**11.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**0.92**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**5.90**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**19.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**3.39**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**22.6**	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**4.20**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**45.3**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							
Hexavalent Chromium	**3310**	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	**0.50**	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-LT-3-5' **P807014-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**7.18**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**235**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**3.67**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**0.53**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**5.02**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**7.86**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**1.59**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**11.7**	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**3.90**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**34.2**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							
Hexavalent Chromium	**651**	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	**0.50**	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-LT-3-10' **P807014-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**7.36**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**145**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**3.66**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**0.59**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**4.94**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**17.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	ND	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**15.4**	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	**3.39**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**2.98**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**26.8**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							
Hexavalent Chromium	**580**	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	**0.36**	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-1' **P807014-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**11.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**32.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**13.9**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**4.46**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**10.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**24.1**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**9.14**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**7.63**	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**17.9**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**43.7**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193645)							
1-Methylnaphthalene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
2-Methylnaphthalene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Acenaphthene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Acenaphthylene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Anthracene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Benz(a)anthracene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Benzo(a)pyrene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Benzo(b)fluoranthene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Benzo(g,h,i)perylene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-1' (Continued) **P807014-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193645) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Chrysene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Dibenz(a,h)anthracene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Fluoranthene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Fluorene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Naphthalene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Phenanthrene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Pyrene	ND	ug/Kg	50	500	07/29/2018	EPA 8270CM	D2
Surrogate: 2-Fluorobiphenyl (SUR)	104%			30-120	07/29/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	121%			27-125	07/29/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	102%			33-155	07/27/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644)							
1,2,4-Trichlorobenzene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	50	60000	07/29/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	50	20000	07/29/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	50	60000	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-1' (Continued) **P807014-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
3-Nitroaniline	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Aniline	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Anthracene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Benzidine	ND	ug/Kg	50	60000	07/29/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	50	60000	07/29/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	50	60000	07/29/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Carbazole	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Chrysene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Fluorene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-1' (Continued) **P807014-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Hexachlorobutadiene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	50	60000	07/29/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Isophorone	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	50	60000	07/29/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	50	60000	07/29/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Phenol	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Pyrene	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Pyridine	ND	ug/Kg	50	12500	07/29/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	50	20000	07/26/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	169%			34-143	07/29/2018	EPA 8270C	S
Surrogate: 2-Fluorobiphenyl (SUR)	110%			41-125	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	101%			13-153	07/29/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	91%			27-125	07/29/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	105%			10-110	07/29/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	114%			33-155	07/29/2018	EPA 8270C	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-5' **P807014-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**5.78**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**40.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**13.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**5.37**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**11.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**27.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**7.59**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**8.28**	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**24.1**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**25.1**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193645)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-5' (Continued) **P807014-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193645) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	70%			30-120	07/29/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	118%			27-125	07/29/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	64%			33-155	07/26/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/29/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-5' (Continued) **P807014-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
3-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-5' (Continued) **P807014-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Hexachlorobutadiene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/26/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	104%			34-143	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	114%			41-125	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	132%			13-153	07/29/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	120%			27-125	07/29/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	129%			10-110	07/29/2018	EPA 8270C	S
Surrogate: p-Terphenyl (SUR)	116%			33-155	07/29/2018	EPA 8270C	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-10' **P807014-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**8.12**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**46.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**17.3**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**6.06**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**12.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**20.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**10.7**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**7.53**	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**24.4**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**35.8**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193645)							
1-Methylnaphthalene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
2-Methylnaphthalene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Acenaphthene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Acenaphthylene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Anthracene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Benz(a)anthracene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Benzo(a)pyrene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Benzo(b)fluoranthene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Benzo(g,h,i)perylene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-10' (Continued) **P807014-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193645) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Chrysene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Dibenz(a,h)anthracene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Fluoranthene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Fluorene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Naphthalene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Phenanthrene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Pyrene	ND	ug/Kg	20	200	07/29/2018	EPA 8270CM	D2
Surrogate: 2-Fluorobiphenyl (SUR)	96%			30-120	07/29/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	124%			27-125	07/29/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	96%			33-155	07/27/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644)							
1,2,4-Trichlorobenzene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	20	24000	07/29/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	20	8000	07/29/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	20	24000	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-10' (Continued) **P807014-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
3-Nitroaniline	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Aniline	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Anthracene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Benzidine	ND	ug/Kg	20	24000	07/29/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	20	24000	07/29/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	20	24000	07/29/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Carbazole	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Chrysene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Fluorene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-10' (Continued) **P807014-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Hexachlorobutadiene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	20	24000	07/29/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Isophorone	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	20	24000	07/29/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	20	24000	07/29/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Phenol	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Pyrene	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Pyridine	ND	ug/Kg	20	5000	07/29/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	20	8000	07/26/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	107%			34-143	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	107%			41-125	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	107%			13-153	07/29/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	91%			27-125	07/29/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	109%			10-110	07/29/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	102%			33-155	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-1' **P807014-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**2.47**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**19.9**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**5.55**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**3.03**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**6.52**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**2.50**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**4.74**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**11.3**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**15.2**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193645)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-1' (Continued) **P807014-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193645) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	64%			30-120	07/29/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	109%			27-125	07/29/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	63%			33-155	07/26/2018	EPA 8270CM	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	68%			50-150	07/25/2018	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-1' (Continued) **P807014-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/29/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-1' (Continued) **P807014-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/26/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	84%			34-143	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	97%			41-125	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	111%			13-153	07/29/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	97%			27-125	07/29/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	110%			10-110	07/29/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	101%			33-155	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-5' **P807014-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**20.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**5.87**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**2.99**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**7.07**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**1.79**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**5.34**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**3.81**	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**11.2**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**16.0**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0019)							
C7-C8	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	100%			60-140	07/24/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-5' (Continued) **P807014-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193645)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	68%			30-120	07/29/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	115%			27-125	07/29/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	66%			33-155	07/26/2018	EPA 8270CM	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/25/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-5' (Continued) **P807014-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639) (Continued)							
PCB-1254	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	64%			50-150	07/25/2018	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/29/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-5' (Continued) **P807014-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Acenaphthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-5' (Continued) **P807014-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/26/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	77%			34-143	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	88%			41-125	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	104%			13-153	07/29/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	91%			27-125	07/29/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	101%			10-110	07/29/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	94%			33-155	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-10' **P807014-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**18.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**3.97**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**2.11**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**5.66**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**1.71**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**3.49**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**7.48**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**11.0**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0019)							
C7-C8	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/24/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	107%			60-140	07/24/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-10' (Continued) **P807014-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193645)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	68%			30-120	07/29/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	113%			27-125	07/29/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	66%			33-155	07/26/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-10' (Continued) **P807014-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/29/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-10' (Continued) **P807014-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/26/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	82%			34-143	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	93%			41-125	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	107%			13-153	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-10' (Continued) **P807014-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Surrogate: Nitrobenzene-d5 (SUR)	96%			27-125	07/29/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	106%			10-110	07/29/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	93%			33-155	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-1' **P807014-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**1.58**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**31.1**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**10.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**4.79**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**7.14**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**4.88**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**7.02**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**23.2**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**19.5**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193645)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-1' (Continued) **P807014-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193645) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	53%			30-120	07/29/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	86%			27-125	07/29/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	53%			33-155	07/26/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/29/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-1' (Continued) **P807014-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
3-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-1' (Continued) **P807014-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Hexachlorobutadiene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/26/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	60%			34-143	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	72%			41-125	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	81%			13-153	07/29/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	73%			27-125	07/29/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	80%			10-110	07/29/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	75%			33-155	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-5' **P807014-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**2.36**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**27.8**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**9.19**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**4.46**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**6.17**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**4.07**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**6.74**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**20.8**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**19.7**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0019)							
C7-C8	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	103%			60-140	07/24/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-5' (Continued) **P807014-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193645)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	67%			30-120	07/29/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	112%			27-125	07/29/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	66%			33-155	07/26/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-5' (Continued) **P807014-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/29/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-5' (Continued) **P807014-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/26/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	87%			34-143	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	98%			41-125	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	116%			13-153	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-5' (Continued) **P807014-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Surrogate: Nitrobenzene-d5 (SUR)	103%			27-125	07/29/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	114%			10-110	07/29/2018	EPA 8270C	S
Surrogate: p-Terphenyl (SUR)	99%			33-155	07/29/2018	EPA 8270C	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-10' **P807014-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**27.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**8.92**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**4.43**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**8.70**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**3.90**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**6.34**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**3.21**	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**18.7**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**17.4**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0019)							
C7-C8	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.51	07/24/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	108%			60-140	07/24/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-10' (Continued) **P807014-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193645)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	54%			30-120	07/29/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	87%			27-125	07/29/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	53%			33-155	07/26/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-10' (Continued) **P807014-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/29/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-10' (Continued) **P807014-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/26/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	65%			34-143	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	74%			41-125	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	85%			13-153	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-4-10' (Continued) **P807014-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Surrogate: Nitrobenzene-d5 (SUR)	76%			27-125	07/29/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	84%			10-110	07/29/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	77%			33-155	07/29/2018	EPA 8270C	

Sample: GCP-LT-4-15' **P807014-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0019)							
C7-C8	ND	mg/kg	1	2.51	07/25/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.51	07/25/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.51	07/25/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.51	07/25/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.51	07/25/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.51	07/25/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.51	07/25/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.51	07/25/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.51	07/25/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.51	07/25/2018	EPA 8015B (M)	
C28-C33	**4.93**	mg/kg	1	2.51	07/25/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.51	07/25/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	106%			60-140	07/25/2018	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-1' **P807014-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**3.89**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**32.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**13.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**5.64**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**10.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**5.36**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**8.70**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**22.1**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**25.2**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193645)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-1' (Continued) **P807014-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193645) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	66%			30-120	07/29/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	110%			27-125	07/29/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	64%			33-155	07/26/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/29/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-1' (Continued) **P807014-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
3-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-1' (Continued) **P807014-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Hexachlorobutadiene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/26/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	82%			34-143	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	96%			41-125	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	112%			13-153	07/29/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	99%			27-125	07/29/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	109%			10-110	07/29/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	101%			33-155	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-5' **P807014-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	ND	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**24.3**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**7.07**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**3.67**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**6.98**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**3.05**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**5.93**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**13.0**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**17.8**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193795)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/27/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193645)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-5' (Continued) **P807014-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193645) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	62%			30-120	07/29/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	104%			27-125	07/29/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	62%			33-155	07/26/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/29/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-5' (Continued) **P807014-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
3-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-5' (Continued) **P807014-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Hexachlorobutadiene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/26/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	76%			34-143	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	89%			41-125	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	104%			13-153	07/29/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	92%			27-125	07/29/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	104%			10-110	07/29/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	96%			33-155	07/29/2018	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-10' **P807014-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193744)							
Antimony	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**1.13**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**24.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**6.22**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**2.96**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**6.26**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**2.10**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**4.71**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**10.9**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**15.4**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcdontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193763)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193645)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-10' (Continued) **P807014-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193645) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/29/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	63%			30-120	07/29/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	104%			27-125	07/29/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	62%			33-155	07/26/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/29/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-10' (Continued) **P807014-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
3-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-10' (Continued) **P807014-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193644) (Continued)							
Hexachlorobutadiene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/29/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/29/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/26/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	73%			34-143	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	89%			41-125	07/29/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	100%			13-153	07/29/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	88%			27-125	07/29/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	97%			10-110	07/29/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	93%			33-155	07/29/2018	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193744										
LCS (QC1193744LCS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Molybdenum	88.4		1	mg/Kg	100	NA	88	80-120		
Antimony	103		3	mg/Kg	100	NA	103	80-120		
Arsenic	88.5		1	mg/Kg	100	NA	89	80-120		
Barium	98.8		1	mg/Kg	100	NA	99	80-120		
Beryllium	92.0		0.5	mg/Kg	100	NA	92	80-120		
Cadmium	94.8		0.5	mg/Kg	100	NA	95	80-120		
Chromium	97.8		1	mg/Kg	100	NA	98	80-120		
Cobalt	105		0.5	mg/Kg	100	NA	105	80-120		
Lead	93.6		1	mg/Kg	100	NA	94	80-120		
Nickel	95.7		1.5	mg/Kg	100	NA	96	80-120		
Selenium	82.8		3	mg/Kg	100	NA	83	80-120		
Silver	90.7		0.5	mg/Kg	100	NA	91	80-120		
Thallium	90.6		3	mg/Kg	100	NA	91	80-120		
Vanadium	96.6		0.5	mg/Kg	100	NA	97	80-120		
Zinc	99.0		5	mg/Kg	100	NA	99	80-120		
Copper	102		1	mg/Kg	100	NA	102	80-120		
Method Blank (QC1193744MB1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Vanadium	ND		0.5	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Copper	ND		1	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193744 (Continued)										
MS (QC1193744MS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Cobalt	114		0.5	mg/Kg	100	35.1	79	75-125		
Antimony	50.6	M	3	mg/Kg	100	ND	51	75-125		
Arsenic	109		1	mg/Kg	100	14.4	95	75-125		
Barium	127		1	mg/Kg	100	37.1	90	75-125		
Beryllium	90.6		0.5	mg/Kg	100	ND	91	75-125		
Cadmium	87.1		0.5	mg/Kg	100	7.34	80	75-125		
Chromium	151	M	1	mg/Kg	100	98.9	52	75-125		
Copper	216	M	1	mg/Kg	100	143	73	75-125		
Vanadium	127		0.5	mg/Kg	100	47.6	79	75-125		
Nickel	110	M	1.5	mg/Kg	100	40.5	70	75-125		
Molybdenum	84.3	M	1	mg/Kg	100	10.1	74	75-125		
Thallium	74.6	M	3	mg/Kg	100	1.71	73	75-125		
Selenium	90.4		3	mg/Kg	100	9.84	81	75-125		
Zinc	241	M	5	mg/Kg	100	197	44	75-125		
Lead	171	M	1	mg/Kg	100	97.3	74	75-125		
Silver	89.3		0.5	mg/Kg	100	ND	89	75-125		
MSD (QC1193744MSD1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Silver	88.5		0.5	mg/Kg	100	ND	89	75-125	0.9	20
Zinc	282		5	mg/Kg	100	197	85	75-125	15.7	20
Thallium	79.4		3	mg/Kg	100	1.71	78	75-125	6.2	20
Selenium	102		3	mg/Kg	100	9.84	92	75-125	2	20
Nickel	115	M	1.5	mg/Kg	100	40.5	75	75-125	4.4	20
Molybdenum	87.4		1	mg/Kg	100	10.1	77	75-125	3.6	20
Lead	181		1	mg/Kg	100	97.3	84	75-125	5.7	20
Copper	256		1	mg/Kg	100	143	113	75-125	16.9	20
Cobalt	123		0.5	mg/Kg	100	35.1	88	75-125	7.6	20
Chromium	151	M	1	mg/Kg	100	98.9	52	75-125	0	20
Cadmium	88.7		0.5	mg/Kg	100	7.34	81	75-125	1.8	20
Vanadium	139		0.5	mg/Kg	100	47.6	91	75-125	9	20
Beryllium	91.1		0.5	mg/Kg	100	ND	91	75-125	0.6	20
Antimony	62.7	M, D	3	mg/Kg	100	ND	63	75-125	21.4	20
Arsenic	110		1	mg/Kg	100	14.4	96	75-125	0.9	20
Barium	133		1	mg/Kg	100	37.1	96	75-125	4.6	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0019										
Blank (B8G0019-BLK1)				Prepared: 07/22/2018 Analyzed: 07/24/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.27			mg/kg	2.00		113	60-140		
LCS (B8G0019-BS1)				Prepared: 07/22/2018 Analyzed: 07/24/2018						
Diesel	44.5		2.51	mg/kg	50.2		88.6	70-130		
Surrogate: n-Octacosane (c28)	2.12			mg/kg	2.01		106	60-140		
LCS Dup (B8G0019-BSD1)				Prepared: 07/22/2018 Analyzed: 07/24/2018						
Diesel	42.8		2.51	mg/kg	50.2		85.4	70-130	3.79	20
Surrogate: n-Octacosane (c28)	2.04			mg/kg	2.01		101	60-140		
Matrix Spike (B8G0019-MS1)		**Source: P807015-15**		Prepared: 07/22/2018 Analyzed: 07/24/2018						
Diesel	44.5		2.51	mg/kg	50.2	ND	88.7	70-130		
Surrogate: n-Octacosane (c28)	2.11			mg/kg	2.01		105	60-140		
Matrix Spike Dup (B8G0019-MSD1)		**Source: P807015-15**		Prepared: 07/22/2018 Analyzed: 07/24/2018						
Diesel	44.0		2.51	mg/kg	50.2	ND	87.7	70-130	1.05	20
Surrogate: n-Octacosane (c28)	2.07			mg/kg	2.01		103	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium_Subcdontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193795										
Duplicate (QC1193795DUP1)		**Source: NA**		Prepared & Analyzed: 07/27/2018						
Hexavalent Chromium	286		400	ug/Kg	0	287		-	0.3	20
LCS (QC1193795LCS1)		**Source: NA**		Prepared & Analyzed: 07/27/2018						
Hexavalent Chromium	41400		400	ug/Kg	40000	NA	103	80-120		
Method Blank (QC1193795MB1)		**Source: NA**		Prepared & Analyzed: 07/27/2018						
Hexavalent Chromium	ND		400	ug/Kg		NA		-		
MS (QC1193795MS2)		**Source: NA**		Prepared & Analyzed: 07/27/2018						
Hexavalent Chromium	40900		400	ug/Kg	40000	287	102	75-125		
Hexavalent Chromium	34300		400	ug/Kg	40000	287	85	75-125		
Batch: QC1193796										
Duplicate (QC1193796DUP1)		**Source: NA**		Prepared & Analyzed: 07/27/2018						
Hexavalent Chromium	ND		400	ug/Kg	0	ND		-		20
LCS (QC1193796LCS1)		**Source: NA**		Prepared & Analyzed: 07/27/2018						
Hexavalent Chromium	37800		400	ug/Kg	40000	NA	95	80-120		
Method Blank (QC1193796MB1)		**Source: NA**		Prepared & Analyzed: 07/27/2018						
Hexavalent Chromium	ND		400	ug/Kg		NA		-		
MS (QC1193796MS1)		**Source: NA**		Prepared & Analyzed: 07/27/2018						
Hexavalent Chromium	43000		400	ug/Kg	40000	ND	108	75-125		
Hexavalent Chromium	43100		400	ug/Kg	40000	ND	108	75-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193763										
LCS (QC1193763LCS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	0.87		0.14	mg/Kg	0.83	NA	105	80-120		
Method Blank (QC1193763MB1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193763MS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	0.79		0.14	mg/Kg	0.83	0.03	92	75-125		
MSD (QC1193763MSD1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	0.78		0.14	mg/Kg	0.83	0.03	90	75-125	1.3	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

PAH (SIM)_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193645										
LCS (QC1193645LCS1)		**Source: NA**		Prepared: 07/24/2018 Analyzed: 07/29/2018						
Acenaphthylene	45		10	ug/Kg	50	NA	90	52-130		
Benzo(b)fluoranthene	42		10	ug/Kg	50	NA	84	63-147		
Benzo(a)pyrene	44		10	ug/Kg	50	NA	88	36-168		
Benz(a)anthracene	35		10	ug/Kg	50	NA	70	61-147		
Anthracene	44		10	ug/Kg	50	NA	88	55-136		
Acenaphthene	41		10	ug/Kg	50	NA	82	58-130		
2-Methylnaphthalene	46		10	ug/Kg	50	NA	92	59-130		
1-Methylnaphthalene	44		10	ug/Kg	50	NA	88	38-130		
Benzo(g,h,i)perylene	38		10	ug/Kg	50	NA	76	54-135		
Fluorene	41		10	ug/Kg	50	NA	82	63-130		
Naphthalene	44		10	ug/Kg	50	NA	88	50-130		
Chrysene	38		10	ug/Kg	50	NA	76	66-130		
Dibenz(a,h)anthracene	41		10	ug/Kg	50	NA	82	52-144		
Fluoranthene	39		10	ug/Kg	50	NA	78	68-139		
Indeno(1,2,3-cd)pyrene	43		10	ug/Kg	50	NA	86	58-144		
Phenanthrene	39		10	ug/Kg	50	NA	78	65-132		
Pyrene	37		10	ug/Kg	50	NA	74	68-134		
Benzo(k)fluoranthene	45		10	ug/Kg	50	NA	90	64-142		
Surrogate: 2-Fluorobiphenyl (SUR)	37.161			ug/Kg	50	NA	74	30-120		
Surrogate: Nitrobenzene-d5 (SUR)	44.749			ug/Kg	50	NA	89	27-125		
Surrogate: p-Terphenyl (SUR)	31.54			ug/Kg	50	NA	63	33-155		
Method Blank (QC1193645MB1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
Pyrene	ND		10	ug/Kg		NA		-		
Phenanthrene	ND		10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		10	ug/Kg		NA		-		
Fluorene	ND		10	ug/Kg		NA		-		
Fluoranthene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Chrysene	ND		10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
Benzo(a)pyrene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
Acenaphthylene	ND		10	ug/Kg		NA		-		
Acenaphthene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Surrogate: p-Terphenyl (SUR)	33.50			ug/Kg	50	NA	67	33-155		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

PAH (SIM)_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193645 (Continued)										
Method Blank (QC1193645MB1)		**Source: NA**			Prepared & Analyzed: 07/24/2018					
Surrogate: Nitrobenzene-d5 (SUR)	46.303			ug/Kg	50	NA	93	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	38.074			ug/Kg	50	NA	76	30-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Polychlorinated Biphenyls_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193639										
LCS (QC1193639LCS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1260	520		50	ug/Kg	500	NA	104	70-130		
PCB-1016	560		50	ug/Kg	500	NA	112	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	42.9			ug/Kg	50	NA	86	50-150		
Method Blank (QC1193639MB1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1262	ND		50	ug/Kg		NA		-		
PCB-1268	ND		50	ug/Kg		NA		-		
PCB-1242	ND		50	ug/Kg		NA		-		
PCB-1260	ND		50	ug/Kg		NA		-		
PCB-1254	ND		50	ug/Kg		NA		-		
PCB-1016	ND		50	ug/Kg		NA		-		
PCB-1221	ND		50	ug/Kg		NA		-		
PCB-1232	ND		50	ug/Kg		NA		-		
PCB-1248	ND		50	ug/Kg		NA		-		
Surrogate: Decachlorobiphenyl DCB (SUR)	24.8	S		ug/Kg	50	NA	50	50-150		
MS (QC1193639MS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1260	510		50	ug/Kg	500	ND	102	70-130		
PCB-1016	570		50	ug/Kg	500	ND	114	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	41.5			ug/Kg	50	NA	83	50-150		
MSD (QC1193639MSD1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1016	440	D	50	ug/Kg	500	ND	88	70-130	25.7	20
PCB-1260	390	D	50	ug/Kg	500	ND	78	70-130	26.7	20
Surrogate: Decachlorobiphenyl DCB (SUR)	29.8			ug/Kg	50	NA	60	50-150		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193644										
LCS (QC1193644LCS1)		**Source: NA**		Prepared: 07/24/2018 Analyzed: 07/29/2018						
Acenaphthene	1500		250	ug/Kg	2000	NA	75	70-113		
1,2,4-Trichlorobenzene	1600		250	ug/Kg	2000	NA	80	57-112		
2,4,5-Trichlorophenol	1800		250	ug/Kg	2000	NA	90	59-121		
2,4-Dimethylphenol	1600		250	ug/Kg	2000	NA	80	68-120		
2,4-Dinitrotoluene	1600		250	ug/Kg	2000	NA	80	68-115		
2-Chlorophenol	1700		250	ug/Kg	2000	NA	85	61-120		
3 and 4-Methylphenol (m and p-Cresol)	1700		400	ug/Kg	2000	NA	85	55-126		
1,4-Dichlorobenzene	1700		250	ug/Kg	2000	NA	85	67-113		
4-Nitrophenol	1500		250	ug/Kg	2000	NA	75	30-130		
Benzo(b)fluoranthene	1700		250	ug/Kg	2000	NA	85	62-132		
Chrysene	1600		250	ug/Kg	2000	NA	80	63-133		
N-Nitrosodi-n-propylamine (NDPA)	1700		250	ug/Kg	2000	NA	85	53-134		
Pentachlorophenol	1300		1200	ug/Kg	2000	NA	65	29-138		
Phenol	1700		250	ug/Kg	2000	NA	85	55-131		
Pyrene	1600		250	ug/Kg	2000	NA	80	73-131		
4-Chloro-3-methylphenol	1700		250	ug/Kg	2000	NA	85	55-129		
Surrogate: 2,4,6-Tribromophenol (SUR)	1483.293			ug/Kg	2000	NA	74	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1471.171			ug/Kg	2000	NA	74	41-125		
Surrogate: 2-Fluorophenol (SUR)	1710.433			ug/Kg	2000	NA	86	13-153		
Surrogate: Nitrobenzene-d5 (SUR)	1565.249			ug/Kg	2000	NA	78	27-125		
Surrogate: Phenol-d5 (SUR)	1698.656			ug/Kg	2000	NA	85	10-110		
Surrogate: p-Terphenyl (SUR)	1495.997			ug/Kg	2000	NA	75	33-155		
Method Blank (QC1193644MB1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
3-Nitroaniline	ND		250	ug/Kg		NA		-		
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193644 (Continued)										
Method Blank (QC1193644MB1)		**Source: NA**			Prepared & Analyzed: 07/24/2018					
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
Total Cresol	ND		400	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
Chrysene	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
Dibenzofuran	ND		250	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		
Benz(a)anthracene	ND		250	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
Acenaphthylene	ND		250	ug/Kg		NA		-		
Acenaphthene	ND		250	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
Phenol	ND		250	ug/Kg		NA		-		
Phenanthrene	ND		250	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
Nitrobenzene	ND		1200	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		
4-Nitrophenol	ND		250	ug/Kg		NA		-		
Hexachloroethane	ND		250	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193644 (Continued)										
Method Blank (QC1193644MB1)		**Source: NA**			Prepared & Analyzed: 07/24/2018					
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
Fluorene	ND		250	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Naphthalene	ND		250	ug/Kg		NA		-		
Surrogate: 2-Fluorobiphenyl (SUR)	1833.477			ug/Kg	2000	NA	92	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1575.97			ug/Kg	2000	NA	79	34-143		
Surrogate: 2-Fluorophenol (SUR)	2117.779			ug/Kg	2000	NA	106	13-153		
Surrogate: p-Terphenyl (SUR)	1873.574			ug/Kg	2000	NA	94	33-155		
Surrogate: Phenol-d5 (SUR)	2071.526			ug/Kg	2000	NA	104	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1894.269			ug/Kg	2000	NA	95	27-125		
MS (QC1193644MS1)		**Source: NA**			Prepared: 07/24/2018 Analyzed: 07/29/2018					
Acenaphthene	1300		250	ug/Kg	2000	ND	65	57-99		
Phenol	1400		250	ug/Kg	2000	ND	70	46-116		
Pentachlorophenol	1200		1200	ug/Kg	2000	ND	60	43-120		
N-Nitrosodi-n-propylamine (NDPA)	1400		250	ug/Kg	2000	ND	54	41-127		
Chrysene	1400		250	ug/Kg	2000	ND	70	68-120		
Benzo(b)fluoranthene	1500		250	ug/Kg	2000	ND	75	59-126		
4-Nitrophenol	1300		250	ug/Kg	2000	ND	65	37-107		
Pyrene	1400		250	ug/Kg	2000	ND	70	53-129		
2-Chlorophenol	1400		250	ug/Kg	2000	ND	70	42-102		
2,4-Dinitrotoluene	1400		250	ug/Kg	2000	ND	54	48-109		
2,4-Dimethylphenol	1400		250	ug/Kg	2000	ND	70	37-105		
2,4,5-Trichlorophenol	1600		250	ug/Kg	2000	ND	80	44-108		
1,4-Dichlorobenzene	1400		250	ug/Kg	2000	ND	70	39-95		
1,2,4-Trichlorobenzene	1400		250	ug/Kg	2000	ND	70	35-93		
4-Chloro-3-methylphenol	1500		250	ug/Kg	2000	ND	75	33-120		
3 and 4-Methylphenol (m and p-Cresol)	1400		400	ug/Kg	2000	ND	70	33-116		
Surrogate: 2-Fluorobiphenyl (SUR)	NR	S		ug/Kg	2000	NA	0	41-125		
Surrogate: Phenol-d5 (SUR)	70.113	S		ug/Kg	2000	NA	4	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	142.118	S		ug/Kg	2000	NA	7	27-125		
Surrogate: 2-Fluorophenol (SUR)	NR	S		ug/Kg	2000	NA	0	13-153		
Surrogate: 2,4,6-Tribromophenol (SUR)	NR	S		ug/Kg	2000	NA	0	34-143		
Surrogate: p-Terphenyl (SUR)	NR	S		ug/Kg	2000	NA	0	33-155		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193644 (Continued)										
MSD (QC1193644MSD1)		**Source: NA**			Prepared: 07/24/2018 Analyzed: 07/29/2018					
1,2,4-Trichlorobenzene	1400		250	ug/Kg	2000	ND	70	35-93	0	30
4-Chloro-3-methylphenol	1600		250	ug/Kg	2000	ND	80	33-120	6.5	30
Pyrene	1500		250	ug/Kg	2000	ND	75	53-129	6.9	30
Phenol	1500		250	ug/Kg	2000	ND	75	46-116	6.9	30
Pentachlorophenol	1300		1200	ug/Kg	2000	ND	65	43-120	8	30
N-Nitrosodi-n-propylamine (NDPA)	1500		250	ug/Kg	2000	ND	59	41-127	6.9	30
Chrysene	1400		250	ug/Kg	2000	ND	70	68-120	0	30
Benzo(b)fluoranthene	1500		250	ug/Kg	2000	ND	75	59-126	0	30
4-Nitrophenol	1400		250	ug/Kg	2000	ND	70	37-107	7.4	30
3 and 4-Methylphenol (m and p-Cresol)	1600		400	ug/Kg	2000	ND	80	33-116	13.3	30
2-Chlorophenol	1500		250	ug/Kg	2000	ND	75	42-102	6.9	30
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	ND	59	48-109	6.9	30
2,4-Dimethylphenol	1400		250	ug/Kg	2000	ND	70	37-105	0	30
2,4,5-Trichlorophenol	1600		250	ug/Kg	2000	ND	80	44-108	0	30
1,4-Dichlorobenzene	1500		250	ug/Kg	2000	ND	75	39-95	6.9	30
Acenaphthene	1400		250	ug/Kg	2000	ND	70	57-99	7.4	30
Surrogate: p-Terphenyl (SUR)	NR	S		ug/Kg	2000	NA	0	33-155		
Surrogate: Phenol-d5 (SUR)	72.153	S		ug/Kg	2000	NA	4	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	149.544	S		ug/Kg	2000	NA	7	27-125		
Surrogate: 2-Fluorophenol (SUR)	NR	S		ug/Kg	2000	NA	0	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	NR	S		ug/Kg	2000	NA	0	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	NR	S		ug/Kg	2000	NA	0	34-143		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
D	RPD was not within control limits. The sample data was reported without further clarification.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 2

PAL WO#: P807014

Client Name	Langan
Address	515 S. Flower St. Suite 2360 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	7210135O1
Sampled By	Kathleen Lo

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	Cr VI 7199	Title 22 Metals 6010/7000	SVOCs and PAHs 8270C SIM	Dioxins 1613	PCBs 8082								
1	SMC-LT-2-5'	7/19	0900	S	2/ 8oz jar		X	X		X									
2	SMC-LT-2-10A		0905	S	1/ 8oz jar		X	X											
3	SMC-LT-3-1'		0955		2/ 8oz jar		X	X		X									
4	SMC-LT-3-5'		1000		2/ 8oz jar		X	X		X									
5	SMC-LT-3-10'		1010		2/ 8oz jar		X	X		X									
6	GCP-LT-6-1'		1130		2/ 8oz jar		X	X	X	X									
7	GCP-LT-6-5'		1135		2/ 8oz jar		X	X	X	X									
8	GCP-LT-6-10'		1140		2/ 8oz jar		X	X	X	X									
9	GCP-LT-2-1'		1445		2/ 8oz jar		X	X	X	X	X								
10	GCP-LT-2-5'	↓	1450	↓	2/ 8oz jar	X	X	X	X	X	X								

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	16.2°C MV	

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/20/18
TIME: 0720

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 7/20/18
TIME: 1040

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-3106

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 2 of 2

PAL WO#:

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-3217
Project Name/Number	Agua Mansa
P.O. Number	7210135501
Sampled By	Cathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH 8015	CrVI 7199	Title 22 metals (cam)	SVOCs and PAHs 8270C and SIM	Dioxins 1613	PCBs 8082
1	GCP-LT-2-10'	7/19	1455	S	2 / 8oz. jar	X	X	X	X	X	
2	GCP-LT-4-1'	"	1530	"	2/ 8oz. jar		X	X	X	X	
3	GCP-LT-4-5'		1535		2/ 8oz. jar	X	X	X	X	X	
4	GCP-LT-4-10'		1540		2/ 8oz. jar	X	X	X	X	X	
5	GCP-LT-4-15'		1545		1/ 8oz. jar	X					
6	GCP-LT-3-1'		1610		2/ 8oz jars	water	X	X	X	X	
7	GCP-LT-3-5'		1615		2/ 8oz jars		X	X	X	X	
8	GCP-LT-3-10'	↓	1620	↓	2/ 8oz jars		X	X	X	X	
9											
10											

G-3107

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	(STD) 5 day	RUSH 24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	16.2°C MV	

REQUESTED ANALYSIS

RELINQUISHED BY
Signature: [signature]
Print: Brad A. McCardell
Company: Langan
DATE: 7/20/18
TIME: 0720

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/20/18
TIME: 1040

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807014

Cooler 1 OF 1

Client Langan

Date Received: 7/20/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
Blue	○ Blank ⊗ Sample	16.2	0.0	16.2	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MW	7/20/18		

Performance Analytical Laboratories, Inc.

ELAP 2960

August 14, 2018

Change Order Report

Langan
32 Executive Park, Suite 130
Irvine, CA 92614-4721

Re: DTSC Riverside
Project No. : Agua Mansa
Work Order: P807014

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/20/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,

Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 8

Qualifiers and Definitions 9

Exceptions List 10

Chain of Custody PDF 11

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807014-01	SMC-LT-2-5'		Solid	07/19/2018	07/20/2018
P807014-02	SMC-LT-2-iron		Solid	07/19/2018	07/20/2018
P807014-03	SMC-LT-3-1'		Solid	07/19/2018	07/20/2018
P807014-04	SMC-LT-3-5'		Solid	07/19/2018	07/20/2018
P807014-05	SMC-LT-3-10'		Solid	07/19/2018	07/20/2018
P807014-06	GCP-LT-6-1'		Solid	07/19/2018	07/20/2018
P807014-07	GCP-LT-6-5'		Solid	07/19/2018	07/20/2018
P807014-08	GCP-LT-6-10'		Solid	07/19/2018	07/20/2018
P807014-09	GCP-LT-2-1'		Solid	07/19/2018	07/20/2018
P807014-10	GCP-LT-2-5'		Solid	07/19/2018	07/20/2018
P807014-11	GCP-LT-2-10'		Solid	07/19/2018	07/20/2018
P807014-12	GCP-LT-4-1'		Solid	07/19/2018	07/20/2018
P807014-13	GCP-LT-4-5'		Solid	07/19/2018	07/20/2018
P807014-14	GCP-LT-4-10'		Solid	07/19/2018	07/20/2018
P807014-16	GCP-LT-3-1'		Solid	07/19/2018	07/20/2018
P807014-17	GCP-LT-3-5'		Solid	07/19/2018	07/20/2018
P807014-18	GCP-LT-3-10'		Solid	07/19/2018	07/20/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-LT-2-5' **P807014-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**10.9**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-LT-2-iron **P807014-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**12.0**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-LT-3-1' **P807014-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**11.6**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-LT-3-5' **P807014-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**11.2**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-LT-3-10' **P807014-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**11.2**	pH Units	1		08/14/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-6-1' **P807014-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**9.37**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-6-5' **P807014-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**8.91**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-6-10' **P807014-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**9.12**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-2-1' **P807014-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**8.62**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-2-5' **P807014-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**8.97**	pH Units	1		08/14/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-2-10' **P807014-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**9.33**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-4-1' **P807014-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**8.89**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-4-5' **P807014-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**9.22**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-4-10' **P807014-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**8.93**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-3-1' **P807014-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0012)							
pH	**8.74**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-3-5' **P807014-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**7.68**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-3-10' **P807014-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**7.46**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

pH by 9045

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8H0012										
Duplicate (B8H0012-DUP1)		**Source: P807011-11**		Prepared: 08/10/2018 Analyzed: 08/14/2018						
pH	13.0			pH Units		13.0			0.308	20
Batch: B8H0013										
Duplicate (B8H0013-DUP1)		**Source: P807014-17**		Prepared: 08/10/2018 Analyzed: 08/14/2018						
pH	7.94			pH Units		7.68			3.33	20

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			No subcontracted Samples found in data set.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 2

PAL WO#: P807014

Client Name	Langan
Address	515 S. Flower St. Suite 2360 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	Cr VI 7199	Title 22 Metals 6010/7000	SVOCs and PAHs 8270C SIM	Dioxins 1613	PCBs 8082
1	SMC-LT-2-5'	7/19	0900	S	2/ 8oz jar		X	X		X	
2	SMC-LT-2-10A	"	0905	S	1/ 8oz jar		X	X			
3	SMC-LT-3-1'	"	0955	"	2/ 8oz jar		X	X		X	
4	SMC-LT-3-5'	"	1000	"	2/ 8oz jar		X	X		X	
5	SMC-LT-3-10'	"	1010	"	2/ 8oz jar		X	X		X	
6	GCP-LT-6-1'	"	1130	"	2/ 8oz jar		X	X	X	X	
7	GCP-LT-6-5'	"	1135	"	2/ 8oz jar		X	X	X	X	
8	GCP-LT-6-10'	"	1140	"	2/ 8oz jar		X	X	X	X	
9	GCP-LT-2-1'	"	1445	"	2/ 8oz jar		X	X	X	X	X
10	GCP-LT-2-5'	↓	1450	↓	2/ 8oz jar	X	X	X	X	X	X

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	16.2°C MV	

RELINQUISHED BY

Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/20/18
TIME: 0720

RECEIVED BY

Signature: M Vega-Mendoza
Print: M Mendoza
Company: PAL
DATE: 7/20/18
TIME: 1040

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3119

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 2 of 2

PAL WO#:

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-3217
Project Name/Number	Agua Mansa
P.O. Number	7210135501
Sampled By	Cathleen Lo

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH 8015	CrVI 7199	Title 22 metals (cam)	SVOCs and PAHs 8270C and SIM	Dioxins 1613	PCBs 8082
1	GCP-LT-2-10'	7/19	1455	S	2 / 8oz. jar	X	X	X	X	X	
2	GCP-LT-4-1'	"	1530	"	2/ 8oz. jar		X	X	X	X	
3	GCP-LT-4-5'		1535		2/ 8oz. jar	X	X	X	X	X	
4	GCP-LT-4-10'		1540		2/ 8oz. jar	X	X	X	X	X	
5	GCP-LT-4-15'		1545		1/ 8oz. jar	X					
6	GCP-LT-3-1'		1610		2/ 8oz jars	water	X	X	X	X	
7	GCP-LT-3-5'		1615		2/ 8oz jars		X	X	X	X	
8	GCP-LT-3-10'	↓	1620	↓	2/ 8oz jars		X	X	X	X	
9											
10											

G-3120

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD 5 day) RUSH 24 48 72

EDD Required - Circle one: Yes No

Type of EDD:

Reciept Temp./ Initials: 16.2°C MV
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: [signature]
Print: Brad A. McCardell
Company: Langan
DATE: 7/20/18
TIME: 0720

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/20/18
TIME: 1040

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807014

Cooler 1 OF 1

Client Langan

Date Received: 7/20/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
Blue	○ Blank ⊗ Sample	16.2	0.0	16.2	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MW	7/20/18		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807014-01	SMC-LT-2-5'		Solid	07/19/2018	07/20/2018
P807014-02	SMC-LT-2-iron		Solid	07/19/2018	07/20/2018
P807014-03	SMC-LT-3-1'		Solid	07/19/2018	07/20/2018
P807014-04	SMC-LT-3-5'		Solid	07/19/2018	07/20/2018
P807014-05	SMC-LT-3-10'		Solid	07/19/2018	07/20/2018
P807014-06	GCP-LT-6-1'		Solid	07/19/2018	07/20/2018
P807014-07	GCP-LT-6-5'		Solid	07/19/2018	07/20/2018
P807014-08	GCP-LT-6-10'		Solid	07/19/2018	07/20/2018
P807014-09	GCP-LT-2-1'		Solid	07/19/2018	07/20/2018
P807014-10	GCP-LT-2-5'		Solid	07/19/2018	07/20/2018
P807014-11	GCP-LT-2-10'		Solid	07/19/2018	07/20/2018
P807014-12	GCP-LT-4-1'		Solid	07/19/2018	07/20/2018
P807014-13	GCP-LT-4-5'		Solid	07/19/2018	07/20/2018
P807014-14	GCP-LT-4-10'		Solid	07/19/2018	07/20/2018
P807014-15	GCP-LT-4-15'		Solid	07/19/2018	07/20/2018
P807014-16	GCP-LT-3-1'		Solid	07/19/2018	07/20/2018
P807014-17	GCP-LT-3-5'		Solid	07/19/2018	07/20/2018
P807014-18	GCP-LT-3-10'		Solid	07/19/2018	07/20/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

August 14, 2018

Change Order Report

Langan
32 Executive Park, Suite 130
Irvine, CA 92614-4721

Re: DTSC Riverside
Project No. : Agua Mansa
Work Order: P807015

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/20/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,

Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 9

Qualifiers and Definitions 10

Exceptions List 11

Chain of Custody PDF 12

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807015-01	SW-8-1'		Solid	07/18/2018	07/20/2018
P807015-02	SW-8-1'-other		Solid	07/18/2018	07/20/2018
P807015-03	SW-8-5'		Solid	07/18/2018	07/20/2018
P807015-04	SW-15-1'-brn		Solid	07/18/2018	07/20/2018
P807015-05	SW-15-1'		Solid	07/18/2018	07/20/2018
P807015-06	SW-15-5'		Solid	07/18/2018	07/20/2018
P807015-07	SW-15-5'-white		Solid	07/18/2018	07/20/2018
P807015-08	WCP-LT-4-1'		Solid	07/18/2018	07/20/2018
P807015-09	WCP-LT-4-5'		Solid	07/18/2018	07/20/2018
P807015-10	WCP-LT-4-10'		Solid	07/18/2018	07/20/2018
P807015-12	WCP-LT-1-1'		Solid	07/18/2018	07/20/2018
P807015-13	WCP-LT-1-5'		Solid	07/18/2018	07/20/2018
P807015-14	WCP-LT-1-10'		Solid	07/18/2018	07/20/2018
P807015-16	MAP-LT-4-1'		Solid	07/18/2018	07/20/2018
P807015-17	WCP-LT-3-1'		Solid	07/18/2018	07/20/2018
P807015-18	WCP-LT-3-5'		Solid	07/18/2018	07/20/2018
P807015-19	WCP-LT-3-10'		Solid	07/18/2018	07/20/2018
P807015-21	WCP-LT-2-1'		Solid	07/18/2018	07/20/2018
P807015-22	WCP-LT-2-5'		Solid	07/18/2018	07/20/2018
P807015-23	WCP-LT-2-10'		Solid	07/18/2018	07/20/2018
P807015-25	SMC-LT-1-1'		Solid	07/18/2018	07/20/2018
P807015-26	SMC-LT-1-5'		Solid	07/18/2018	07/20/2018
P807015-27	SMC-LT-1-10'		Solid	07/18/2018	07/20/2018
P807015-28	SMC-LT-2-1'		Solid	07/18/2018	07/20/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-8-1' **P807015-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**11.1**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-8-1'-other **P807015-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**12.5**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-8-5' **P807015-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**11.4**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-15-1'-brn **P807015-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**10.9**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-15-1' **P807015-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**12.5**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-15-5' **P807015-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**10.6**	pH Units	1		08/14/2018	EPA 9045	

Sample: SW-15-5'-white **P807015-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**12.6**	pH Units	1		08/14/2018	EPA 9045	

Sample: WCP-LT-4-1' **P807015-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**9.54**	pH Units	1		08/14/2018	EPA 9045	

Sample: WCP-LT-4-5' **P807015-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**9.40**	pH Units	1		08/14/2018	EPA 9045	

Sample: WCP-LT-4-10' **P807015-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**8.83**	pH Units	1		08/14/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: WCP-LT-1-1' **P807015-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**10.8**	pH Units	1		08/14/2018	EPA 9045	

Sample: WCP-LT-1-5' **P807015-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**11.0**	pH Units	1		08/14/2018	EPA 9045	

Sample: WCP-LT-1-10' **P807015-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**9.51**	pH Units	1		08/14/2018	EPA 9045	

Sample: MAP-LT-4-1' **P807015-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**9.65**	pH Units	1		08/14/2018	EPA 9045	

Sample: WCP-LT-3-1' **P807015-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**9.05**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: WCP-LT-3-5' **P807015-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**9.12**	pH Units	1		08/14/2018	EPA 9045	

Sample: WCP-LT-3-10' **P807015-19 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**8.89**	pH Units	1		08/14/2018	EPA 9045	

Sample: WCP-LT-2-1' **P807015-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0013)							
pH	**8.91**	pH Units	1		08/14/2018	EPA 9045	

Sample: WCP-LT-2-5' **P807015-22 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**8.34**	pH Units	1		08/14/2018	EPA 9045	

Sample: WCP-LT-2-10' **P807015-23 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**9.83**	pH Units	1		08/14/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-LT-1-1' **P807015-25 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**8.19**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-LT-1-5' **P807015-26 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**11.0**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-LT-1-10' **P807015-27 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**12.5**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-LT-2-1' **P807015-28 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**12.0**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

pH by 9045

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8H0013										
Duplicate (B8H0013-DUP1)		**Source: P807014-17**		Prepared: 08/10/2018 Analyzed: 08/14/2018						
pH	7.94			pH Units		7.68			3.33	20
Batch: B8H0017										
Duplicate (B8H0017-DUP1)		**Source: P807019-06**		Prepared: 08/13/2018 Analyzed: 08/14/2018						
pH	8.69			pH Units		9.16			5.27	20

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			No subcontracted Samples found in data set.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 3

PAL WO#: P807015

Client Name	Langan
Address	515 South Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909 771 8217
Project Name/Number	Agua Mansa
P.O. Number	7210135O1
Sampled By	Kathleen Co

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Title 22 Metals 6010/7000	Cr VI 7199	TPH carbon chain 8015	PCBs 8082	SVOCs and PAHs 8270 (SIM)	Dioxins 1613
1	SW-8-1'	7/18	0820	S		X	X				
2	SW-8-1'-other		0815			X	X				
3	SW-8-5'		0815			X	X				
4	SW-15-1'-brn		0905			X	X	X	X		
5	SW-15-1'		0910			X	X	X	X		
6	SW-15-5'		0910			X	X	X	X		
7	SW-15-5'-white		0915			X	X	X	X		
8	WCP-LT-4-1'		1055			X	X		X	X	X
9	WCP-LT-4-5'		1103			X	X	X	X	X	X
10	WCP-LT-4-10'	↓	1110	↓		X	X	X		X	X

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD 5 day) RUSH 24 48 72

EDD Required - Circle one: Yes (No)

Type of EDD:

Reciept Temp./ Initials: (Temp recorded is not corrected) 16.9°C MW

RELINQUISHED BY
Signature: Brad McCardell
Print: Brad M. McCardell
Company: Langan
DATE: 7/20/18
TIME: 1040

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 7/20/18
TIME: 1040

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3134

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 2 of 3

PAL WO#: P807095

Client Name	Langan
Address	515 South Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCordell / Neil Shukla
Email	bmccordell@langan.com
Phone	907-771-8217
Project Name/Number	Agua Mansa
P.O. Number	7210135O1
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH-carbon chain 8015	Cr VI 7199	Title 22 Metals 6010/7000	SVOCs and PAHs 8270C SIM	Dioxins 1613	PCBs 8082
1	WCP-LT-4-15'	7/18	1115	S	1/ 8oz. jar	X					
2	WCP-LT-1-1'	7/18	1140	S	2/ 8oz. jars		X	X	X	X	X
3	WCP-LT-1-5'	"	1145	"	2/ 8oz. jars	X	X	X	X	X	X
4	WCP-LT-1-10'		1150		2/ 8oz jar	X	X	X	X	X	
5	WCP-LT-1-15'		1200		1/ 8oz. jar	X					
6	MAP-LT-4-1'		1220		2/ 8oz. jar		X	X			
7	WCP-LT-3-1'		1430		2/ 8oz. jar		X	X	X	X	
8	WCP-LT-3-5'		1432		2/ 8oz. jar	X	X	X	X	X	
9	WCP-LT-3-10'		1435		2/ 8oz. jar	X	X	X	X	X	
10	WCP-LT-3-15'	↓	1445	↓	1/ 8oz. jar	X					

REQUESTED ANALYSIS

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): STD 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one:	Yes / No
Type of EDD:	
Reciept Temp./ Initials: (Temp recorded is not corrected)	

RELINQUISHED BY
Signature: [signature]
Print: Brad A. McCordell
Company: Langan
DATE: 7/20/18
TIME:

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 10/20/18
TIME: 1040

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3135

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 3 of 3

PAL WO#:

Client Name	Langan
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shulela
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	Cr VI 7199	Title 22 Metals 6010/7000	SVOCs and PAHs 8270C	Dioxins 1613	PCBs 8082
1	WCP-LT-2-1'	7/18	1510	S	2/ 8 oz. jars		X	X	X	X	
2	WCP-LT-2-5'		1515		2/ 8 oz. jars	X	X	X	X	X	
3	WCP-LT-2-10'		1520		2/ 8 oz. jars	X	X	X	X	X	
4	WCP-LT-2-15'		1525		1/ 8 oz. jar	X					
5	SMC-LT-1-1'		1545		2/ 8 oz. jar		X	X			
6	SMC-LT-1-5'		1550		2/ 8 oz. jar		X	X			
7	SMC-LT-1-10'		1600		2/ 8 oz. jar		X	X			
8	SMC-LT-2-1'		1615		2/ 8 oz. jar		X	X		X	
9											
10											

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD 5 day) RUSH 24 48 72

EDD Required - Circle one: Yes (No)

Type of EDD:

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: [signature]
Print: Brad McCardell
Company: Langan
DATE: 7/20/18
TIME:

RECEIVED BY
Signature: [signature]
Print: N Valenzuela
Company: PAL
DATE: 7/20/18
TIME: 1040

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3136

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807015

Cooler 1 OF 1

Client Langan

Date Received: 7/20/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
Red	○ Blank ⊗ Sample	16.9	0.0	16.9	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MW	7/20/18		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807015-01	SW-8-1'		Solid	07/18/2018	07/20/2018
P807015-02	SW-8-1'-other		Solid	07/18/2018	07/20/2018
P807015-03	SW-8-5'		Solid	07/18/2018	07/20/2018
P807015-04	SW-15-1'-brn		Solid	07/18/2018	07/20/2018
P807015-05	SW-15-1'		Solid	07/18/2018	07/20/2018
P807015-06	SW-15-5'		Solid	07/18/2018	07/20/2018
P807015-07	SW-15-5'-white		Solid	07/18/2018	07/20/2018
P807015-08	WCP-LT-4-1'		Solid	07/18/2018	07/20/2018
P807015-09	WCP-LT-4-5'		Solid	07/18/2018	07/20/2018
P807015-10	WCP-LT-4-10'		Solid	07/18/2018	07/20/2018
P807015-11	WCP-LT-4-15'		Solid	07/18/2018	07/20/2018
P807015-12	WCP-LT-1-1'		Solid	07/18/2018	07/20/2018
P807015-13	WCP-LT-1-5'		Solid	07/18/2018	07/20/2018
P807015-14	WCP-LT-1-10'		Solid	07/18/2018	07/20/2018
P807015-15	WCP-LT-1-15'		Solid	07/18/2018	07/20/2018
P807015-16	MAP-LT-4-1'		Solid	07/18/2018	07/20/2018
P807015-17	WCP-LT-3-1'		Solid	07/18/2018	07/20/2018
P807015-18	WCP-LT-3-5'		Solid	07/18/2018	07/20/2018
P807015-19	WCP-LT-3-10'		Solid	07/18/2018	07/20/2018
P807015-20	WCP-LT-3-15'		Solid	07/18/2018	07/20/2018
P807015-21	WCP-LT-2-1'		Solid	07/18/2018	07/20/2018
P807015-22	WCP-LT-2-5'		Solid	07/18/2018	07/20/2018
P807015-23	WCP-LT-2-10'		Solid	07/18/2018	07/20/2018
P807015-24	WCP-LT-2-15'		Solid	07/18/2018	07/20/2018
P807015-25	SMC-LT-1-1'		Solid	07/18/2018	07/20/2018
P807015-26	SMC-LT-1-5'		Solid	07/18/2018	07/20/2018
P807015-27	SMC-LT-1-10'		Solid	07/18/2018	07/20/2018
P807015-28	SMC-LT-2-1'		Solid	07/18/2018	07/20/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

August 01, 2018

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Agua Mansa

Work Order: P807019

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/20/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 62

Qualifiers and Definitions 84

Chain of Custody PDF 85

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807019-01	MAP-SB-2-30'		Solid	07/18/2018	07/20/2018
P807019-02	MAP-SB-2-50'		Solid	07/18/2018	07/20/2018
P807019-04	MAP-SB-1-15'		Solid	07/18/2018	07/20/2018
P807019-05	MAP-SB-1-20'		Solid	07/18/2018	07/20/2018
P807019-06	SMC-SB-2-1'		Solid	07/18/2018	07/20/2018
P807019-07	SMC-SB-2-5'		Solid	07/18/2018	07/20/2018
P807019-08	SMC-SB-2-10'		Solid	07/18/2018	07/20/2018
P807019-09	SMC-SB-2-30'		Solid	07/18/2018	07/20/2018
P807019-10	SMC-SB-1-5'		Solid	07/18/2018	07/20/2018
P807019-11	SMC-SB-1-10'		Solid	07/18/2018	07/20/2018
P807019-12	SMC-SB-1-30'		Solid	07/18/2018	07/20/2018
P807019-13	SMC-SB-3-10'		Solid	07/19/2018	07/20/2018
P807019-14	SMC-SB-3-20'		Solid	07/19/2018	07/20/2018
P807019-15	SMC-SB-3-30'		Solid	07/19/2018	07/20/2018
P807019-16	SMC-SB-3-40		Solid	07/19/2018	07/20/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-30' **P807019-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	**5.30**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Arsenic	**6.75**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**47.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**18.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**8.59**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**14.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**5.50**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**14.1**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**33.3**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**39.4**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	5.00	07/25/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	5.00	07/25/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	5.00	07/25/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	5.00	07/25/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	5.00	07/25/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	5.00	07/25/2018	EPA 8015B (M)	
C19-C20	**6.73**	mg/kg	1	5.00	07/25/2018	EPA 8015B (M)	
C21-C22	**11.9**	mg/kg	1	5.00	07/25/2018	EPA 8015B (M)	
C23-C24	**20.4**	mg/kg	1	5.00	07/25/2018	EPA 8015B (M)	
C25-C27	**29.0**	mg/kg	1	5.00	07/25/2018	EPA 8015B (M)	
C28-C33	**134**	mg/kg	1	5.00	07/25/2018	EPA 8015B (M)	
C34-C40	**103**	mg/kg	1	5.00	07/25/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	112%			60-140	07/25/2018	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-30' (Continued) **P807019-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
1,2-Dichlorobenzene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
1,3-Dichlorobenzene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
1,4-Dichlorobenzene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	L, D2
1-Methylnaphthalene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2,4,5-Trichlorophenol	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2,4,6-Trichlorophenol	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2,4-Dichlorophenol	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2,4-Dimethylphenol	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2,4-Dinitrophenol	ND	ug/Kg	20	24000	07/27/2018	EPA 8270C	D2
2,4-Dinitrotoluene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2,6-Dinitrotoluene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2-Chloronaphthalene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2-Chlorophenol	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2-Methylnaphthalene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2-Methylphenol (o-Cresol)	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2-Nitroaniline	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
2-Nitrophenol	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	20	8000	07/27/2018	EPA 8270C	D2
3,3'-Dichlorobenzidine	ND	ug/Kg	20	24000	07/27/2018	EPA 8270C	D2
3-Nitroaniline	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
4-Bromophenyl phenyl ether	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
4-Chloro-3-methylphenol	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
4-Chloroaniline	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
4-Chlorophenyl phenyl ether	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
4-Nitroaniline	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
4-Nitrophenol	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Acenaphthene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Acenaphthylene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Aniline	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Anthracene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-30' (Continued) **P807019-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Azobenzene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Benz(a)anthracene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Benzidine	ND	ug/Kg	20	24000	07/27/2018	EPA 8270C	D2
Benzo(a)pyrene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Benzo(b)fluoranthene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Benzo(g,h,i)perylene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Benzo(k)fluoranthene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Benzoic acid	ND	ug/Kg	20	24000	07/27/2018	EPA 8270C	D2
Benzyl alcohol	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Bis(2-chloroethoxy)methane	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Bis(2-chloroethyl) Ether	ND	ug/Kg	20	24000	07/27/2018	EPA 8270C	D2
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Butylbenzyl Phthalate	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Carbazole	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Chrysene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Dibenz(a,h)anthracene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Dibenzofuran	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Diethyl phthalate	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Dimethyl phthalate	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Di-n-butyl phthalate	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Di-n-octyl phthalate	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Fluoranthene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Fluorene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Hexachlorobenzene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Hexachlorobutadiene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Hexachlorocyclopentadiene	ND	ug/Kg	20	24000	07/27/2018	EPA 8270C	D2
Hexachloroethane	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Isophorone	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Naphthalene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Nitrobenzene	ND	ug/Kg	20	24000	07/27/2018	EPA 8270C	D2
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
N-Nitrosodiphenylamine	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Pentachlorophenol	ND	ug/Kg	20	24000	07/27/2018	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-30' (Continued) **P807019-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Phenanthrene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Phenol	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Pyrene	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Pyridine	ND	ug/Kg	20	5000	07/27/2018	EPA 8270C	D2
Total Cresol	ND	ug/Kg	20	8000	07/27/2018	EPA 8270C	D2
Surrogate: 2,4,6-Tribromophenol (SUR)	109%			34-143	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	89%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	82%			13-153	07/27/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	81%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	91%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	94%			33-155	07/27/2018	EPA 8270C	
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020)							
Acetone	ND	µg/Kg	1	23	07/23/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	58	07/23/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	5.8	07/23/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	23	07/23/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	5.8	07/23/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	5.8	07/23/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	5.8	07/23/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-30' (Continued) **P807019-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	5.8	07/23/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	5.8	07/23/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	5.8	07/23/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	12	07/23/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	23	07/23/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	12	07/23/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	23	07/23/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-30' (Continued) **P807019-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	29	07/23/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	9.3	07/23/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.2	07/23/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.3	07/23/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.5	07/23/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	102%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	92.1%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	112%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	99.1%			60-140	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-50' **P807019-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	ND	mg/Kg	1	3	07/27/2018	EPA 6010B	
Arsenic	**4.04**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**107**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**38.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**9.95**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**13.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**6.28**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**13.8**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**40.4**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**37.3**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/25/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/25/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/25/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/25/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/25/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/25/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/25/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/25/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/25/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/25/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/25/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/25/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	85.6%			60-140	07/25/2018	EPA 8015B (M)	
Mercury_Subcontract (Batch ID: QC1193772)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-50' (Continued) **P807019-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Mercury_Subcontract (Batch ID: QC1193772) (Continued)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-50' (Continued) **P807019-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-50' (Continued) **P807019-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	79%			34-143	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	74%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	80%			13-153	07/27/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	73%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	87%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	90%			33-155	07/27/2018	EPA 8270C	
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020)							
Acetone	ND	µg/Kg	1	16	07/23/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	40	07/23/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	16	07/23/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-50' (Continued) **P807019-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.0	07/23/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	7.9	07/23/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	16	07/23/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	7.9	07/23/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	16	07/23/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-50' (Continued) **P807019-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	20	07/23/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.79	07/23/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.6	07/23/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.4	07/23/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	102%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	96.9%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	117%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	99.5%			60-140	07/23/2018	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-1-15' **P807019-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	88.4%			60-140	07/26/2018	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-1-20' **P807019-05 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Acetone	ND	µg/Kg	1	21	07/23/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	53	07/23/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	5.3	07/23/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	21	07/23/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	5.3	07/23/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	5.3	07/23/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	5.3	07/23/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-1-20' (Continued) **P807019-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
1,2-Dichloropropane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	5.3	07/23/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	5.3	07/23/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	5.3	07/23/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	11	07/23/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	21	07/23/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	11	07/23/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	21	07/23/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	26	07/23/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	8.5	07/23/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-1-20' (Continued) **P807019-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
Trichloroethene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.1	07/23/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.1	07/23/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.2	07/23/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	100%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	93.7%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	112%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	99.1%			60-140	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-1' **P807019-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	**6.68**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Arsenic	**3.45**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**44.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**16.8**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**6.53**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**12.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**14.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**9.41**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**27.5**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**40.0**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C28-C33	**4.94**	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	92.1%			60-140	07/26/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-1' (Continued) **P807019-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193827) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	48%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	75%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	49%			33-155	07/27/2018	EPA 8270CM	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193700)							
PCB-1016	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1221	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/27/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-1' (Continued) **P807019-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193700) (Continued)							
PCB-1254	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1262	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	75%			50-150	07/27/2018	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-1' (Continued) **P807019-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-1' (Continued)

P807019-06 (Solid)

Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	69%			34-143	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	71%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	72%			13-153	07/27/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	69%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	76%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	79%			33-155	07/27/2018	EPA 8270C	

Sample: SMC-SB-2-5'

P807019-07 (Solid)

Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193700)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PCB-1016	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1221	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1262	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	72%			50-150	07/27/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-10' **P807019-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	**9.84**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**9.97**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**49.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	**2.10**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**14.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**5.49**	mg/Kg	1	0.5	07/27/2018	EPA 6010B	
Copper	**12.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**39.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**8.72**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**9.44**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**26.5**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**30.0**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	**459**	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-10' (Continued) **P807019-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193740) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	50%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	81%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	55%			33-155	07/27/2018	EPA 8270CM	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193700)							
PCB-1016	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1221	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1262	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	66%			50-150	07/27/2018	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-10' (Continued) **P807019-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-10' (Continued) **P807019-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	72%			34-143	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	71%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	70%			13-153	07/27/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	71%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	81%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	86%			33-155	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-30' **P807019-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	**4.47**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**4.96**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**40.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	**1.28**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**13.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**5.13**	mg/Kg	1	0.5	07/27/2018	EPA 6010B	
Copper	**11.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**31.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**8.99**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**9.86**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**24.9**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**27.6**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	**411**	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193882)							
Mercury	ND	mg/Kg	1	0.14	07/30/2018	EPA 7471A	L
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-30' (Continued) **P807019-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193740) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	42%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	67%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	46%			33-155	07/27/2018	EPA 8270CM	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193700)							
PCB-1016	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1221	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1262	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	69%			50-150	07/27/2018	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-30' (Continued) **P807019-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-30' (Continued) **P807019-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	63%			34-143	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	67%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	65%			13-153	07/27/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	64%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	74%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	78%			33-155	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-5' **P807019-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	**4.01**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**12.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**91.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	**1.01**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**52.3**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**3.62**	mg/Kg	1	0.5	07/27/2018	EPA 6010B	
Copper	**15.9**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**47.8**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**7.38**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**15.5**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**27.4**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**39.9**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	**9240**	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193882)							
Mercury	ND	mg/Kg	1	0.14	07/30/2018	EPA 7471A	L
PAH (SIM)_Subcontract (Batch ID: QC1193852)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-5' (Continued) **P807019-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193852) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Fluoranthene	**11**	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Phenanthrene	**12**	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/30/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	46%			30-120	07/30/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	66%			27-125	07/30/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	49%			33-155	07/27/2018	EPA 8270CM	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193700)							
PCB-1016	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1221	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1262	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	77%			50-150	07/27/2018	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193835)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-5' (Continued) **P807019-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193835) (Continued)							
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/30/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/30/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/30/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/30/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/30/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/30/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-5' (Continued) **P807019-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193835) (Continued)							
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/30/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/30/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/30/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/30/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/30/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	0%			34-143	07/30/2018	EPA 8270C	S
Surrogate: 2-Fluorobiphenyl (SUR)	56%			41-125	07/30/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	1%			13-153	07/30/2018	EPA 8270C	S
Surrogate: Nitrobenzene-d5 (SUR)	54%			27-125	07/30/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	10%			10-110	07/30/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	64%			33-155	07/30/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-10' **P807019-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	**5.13**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**9.46**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**79.9**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	**0.69**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**28.9**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**3.20**	mg/Kg	1	0.5	07/27/2018	EPA 6010B	
Copper	**14.3**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**31.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**6.52**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**11.5**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**28.4**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**31.5**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	**8660**	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193882)							
Mercury	ND	mg/Kg	1	0.14	07/30/2018	EPA 7471A	L
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-10' (Continued) **P807019-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193740) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	29%			30-120	07/27/2018	EPA 8270CM	S
Surrogate: Nitrobenzene-d5 (SUR)	36%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	38%			33-155	07/27/2018	EPA 8270CM	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193700)							
PCB-1016	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1221	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1262	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	68%			50-150	07/27/2018	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-10' (Continued) **P807019-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-10' (Continued) **P807019-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	0%			34-143	07/27/2018	EPA 8270C	S
Surrogate: 2-Fluorobiphenyl (SUR)	39%			41-125	07/27/2018	EPA 8270C	S
Surrogate: 2-Fluorophenol (SUR)	2%			13-153	07/27/2018	EPA 8270C	S
Surrogate: Nitrobenzene-d5 (SUR)	31%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	12%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	59%			33-155	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-30' **P807019-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	**10.5**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**13.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**102**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	**1.82**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**36.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**3.42**	mg/Kg	1	0.5	07/27/2018	EPA 6010B	
Copper	**17.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**49.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**10.5**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**16.4**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**31.6**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**36.5**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	**5320**	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193882)							
Mercury	ND	mg/Kg	1	0.14	07/30/2018	EPA 7471A	L
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-30' (Continued) **P807019-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193740) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	39%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	29%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	55%			33-155	07/27/2018	EPA 8270CM	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193700)							
PCB-1016	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1221	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1262	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	72%			50-150	07/27/2018	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
1,2-Dichlorobenzene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
1,3-Dichlorobenzene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
1,4-Dichlorobenzene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	L, D2
1-Methylnaphthalene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2,4,5-Trichlorophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2,4,6-Trichlorophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2,4-Dichlorophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-30' (Continued) **P807019-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
2,4-Dimethylphenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2,4-Dinitrophenol	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
2,4-Dinitrotoluene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2,6-Dinitrotoluene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Chloronaphthalene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Chlorophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Methylnaphthalene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Methylphenol (o-Cresol)	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Nitroaniline	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Nitrophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	5	2000	07/27/2018	EPA 8270C	D2
3,3'-Dichlorobenzidine	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
3-Nitroaniline	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
4-Bromophenyl phenyl ether	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
4-Chloro-3-methylphenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
4-Chloroaniline	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
4-Chlorophenyl phenyl ether	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
4-Nitroaniline	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
4-Nitrophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Acenaphthene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Acenaphthylene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Aniline	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Anthracene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Azobenzene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Benz(a)anthracene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Benzidine	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
Benzo(a)pyrene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Benzo(b)fluoranthene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Benzo(g,h,i)perylene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Benzo(k)fluoranthene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Benzoic acid	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
Benzyl alcohol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Bis(2-chloroethoxy)methane	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Bis(2-chloroethyl) Ether	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-30' (Continued) **P807019-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Butylbenzyl Phthalate	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Carbazole	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Chrysene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Dibenz(a,h)anthracene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Dibenzofuran	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Diethyl phthalate	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Dimethyl phthalate	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Di-n-butyl phthalate	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Di-n-octyl phthalate	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Fluoranthene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Fluorene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Hexachlorobenzene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Hexachlorobutadiene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Hexachlorocyclopentadiene	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
Hexachloroethane	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Isophorone	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Naphthalene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Nitrobenzene	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
N-Nitrosodiphenylamine	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Pentachlorophenol	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
Phenanthrene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Phenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Pyrene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Pyridine	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Total Cresol	ND	ug/Kg	5	2000	07/27/2018	EPA 8270C	D2
Surrogate: 2,4,6-Tribromophenol (SUR)	0%			34-143	07/27/2018	EPA 8270C	S
Surrogate: 2-Fluorobiphenyl (SUR)	45%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	0%			13-153	07/27/2018	EPA 8270C	S
Surrogate: Nitrobenzene-d5 (SUR)	23%			27-125	07/27/2018	EPA 8270C	S
Surrogate: Phenol-d5 (SUR)	9%			10-110	07/27/2018	EPA 8270C	S
Surrogate: p-Terphenyl (SUR)	69%			33-155	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-10' **P807019-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	**11.3**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**15.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**83.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	**0.55**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**39.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**2.99**	mg/Kg	1	0.5	07/27/2018	EPA 6010B	
Copper	**13.1**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**25.8**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**6.63**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**18.8**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**23.0**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**29.0**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	**3890**	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193882)							
Mercury	ND	mg/Kg	1	0.14	07/30/2018	EPA 7471A	L
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-10' (Continued) **P807019-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193740) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	31%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	47%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	33%			33-155	07/27/2018	EPA 8270CM	S
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193844)							
PCB-1016	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	90%			50-150	07/30/2018	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-10' (Continued) **P807019-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-10' (Continued) **P807019-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	4%			34-143	07/27/2018	EPA 8270C	S
Surrogate: 2-Fluorobiphenyl (SUR)	42%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	3%			13-153	07/27/2018	EPA 8270C	S
Surrogate: Nitrobenzene-d5 (SUR)	38%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	17%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	49%			33-155	07/27/2018	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-20' **P807019-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**13.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**228**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	**1.19**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**27.8**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**2.85**	mg/Kg	1	0.5	07/27/2018	EPA 6010B	
Copper	**14.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**43.9**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**6.21**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**14.6**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**21.1**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**40.4**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	**4230**	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193882)							
Mercury	ND	mg/Kg	1	0.14	07/30/2018	EPA 7471A	L
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	**10**	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-20' (Continued) **P807019-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193740) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	**11**	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	**12**	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	**17**	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	**12**	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	34%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	44%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	41%			33-155	07/27/2018	EPA 8270CM	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193700)							
PCB-1016	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1221	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1262	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	62%			50-150	07/27/2018	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-20' (Continued) **P807019-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-20' (Continued) **P807019-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	4%			34-143	07/27/2018	EPA 8270C	S
Surrogate: 2-Fluorobiphenyl (SUR)	44%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	12%			13-153	07/27/2018	EPA 8270C	S
Surrogate: Nitrobenzene-d5 (SUR)	36%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	36%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	63%			33-155	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-20' (Continued) **P807019-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-30' **P807019-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	**15.0**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**6.88**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**208**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**17.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**11.6**	mg/Kg	1	0.5	07/27/2018	EPA 6010B	
Copper	**16.9**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**9.77**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**5.54**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**7.54**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**39.7**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**41.9**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193882)							
Mercury	ND	mg/Kg	1	0.14	07/30/2018	EPA 7471A	L
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-30' (Continued) **P807019-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193740) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	40%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	67%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	42%			33-155	07/27/2018	EPA 8270CM	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193844)							
PCB-1016	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/30/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	76%			50-150	07/30/2018	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-30' (Continued) **P807019-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-30' (Continued) **P807019-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	59%			34-143	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	54%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	57%			13-153	07/27/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	55%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	62%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	61%			33-155	07/27/2018	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-40 **P807019-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	**7.34**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**2.69**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**284**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**17.3**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**13.5**	mg/Kg	1	0.5	07/27/2018	EPA 6010B	
Copper	**10.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**3.14**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**6.53**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**4.78**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**49.6**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**45.5**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193882)							
Mercury	ND	mg/Kg	1	0.14	07/30/2018	EPA 7471A	L
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-40 (Continued) **P807019-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193740) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	36%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	59%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	39%			33-155	07/27/2018	EPA 8270CM	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193700)							
PCB-1016	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1221	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/27/2018	EPA 8082	L2
PCB-1262	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/27/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	68%			50-150	07/27/2018	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-40 (Continued) **P807019-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-40 (Continued) **P807019-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	51%			34-143	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	50%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	53%			13-153	07/27/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	52%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	56%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	57%			33-155	07/27/2018	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193742										
LCS (QC1193742LCS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Barium	94.8		1	mg/Kg	100	NA	95	80-120		
Zinc	98.8		5	mg/Kg	100	NA	99	80-120		
Vanadium	93.9		0.5	mg/Kg	100	NA	94	80-120		
Thallium	91.5		3	mg/Kg	100	NA	92	80-120		
Silver	87.6		0.5	mg/Kg	100	NA	88	80-120		
Selenium	85.1		3	mg/Kg	100	NA	85	80-120		
Nickel	93.8		1.5	mg/Kg	100	NA	94	80-120		
Molybdenum	89.5		1	mg/Kg	100	NA	90	80-120		
Lead	92.8		1	mg/Kg	100	NA	93	80-120		
Copper	95.6		1	mg/Kg	100	NA	96	80-120		
Cobalt	102		0.5	mg/Kg	100	NA	102	80-120		
Chromium	94.2		1	mg/Kg	100	NA	94	80-120		
Cadmium	95.7		0.5	mg/Kg	100	NA	96	80-120		
Beryllium	92.2		0.5	mg/Kg	100	NA	92	80-120		
Antimony	103		3	mg/Kg	100	NA	103	80-120		
Arsenic	92.1		1	mg/Kg	100	NA	92	80-120		
Method Blank (QC1193742MB1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Arsenic	ND		1	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Copper	ND		1	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Vanadium	ND		0.5	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193742 (Continued)										
MS (QC1193742MS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Selenium	96.1		3	mg/Kg	100	4.62	91	75-125		
Chromium	122		1	mg/Kg	100	26.9	95	75-125		
Cobalt	106		0.5	mg/Kg	100	10.4	96	75-125		
Copper	124		1	mg/Kg	100	18.9	105	75-125		
Lead	109		1	mg/Kg	100	16.7	92	75-125		
Beryllium	95.5		0.5	mg/Kg	100	ND	96	75-125		
Nickel	111		1.5	mg/Kg	100	19.6	91	75-125		
Barium	155		1	mg/Kg	100	62.5	93	75-125		
Silver	92.5		0.5	mg/Kg	100	ND	93	75-125		
Thallium	87.1		3	mg/Kg	100	1.86	85	75-125		
Vanadium	137		0.5	mg/Kg	100	37.0	100	75-125		
Zinc	142		5	mg/Kg	100	44.9	97	75-125		
Molybdenum	89.2		1	mg/Kg	100	1.04	88	75-125		
Cadmium	96.0		0.5	mg/Kg	100	0.35	96	75-125		
Antimony	56.9	M	3	mg/Kg	100	3.13	54	75-125		
Arsenic	104		1	mg/Kg	100	5.17	99	75-125		
MSD (QC1193742MSD1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Beryllium	94.6		0.5	mg/Kg	100	ND	95	75-125	0.9	20
Thallium	86.6		3	mg/Kg	100	1.86	85	75-125	0.6	20
Cadmium	95.2		0.5	mg/Kg	100	0.35	95	75-125	0.8	20
Chromium	121		1	mg/Kg	100	26.9	94	75-125	0.8	20
Cobalt	104		0.5	mg/Kg	100	10.4	94	75-125	1.9	20
Copper	124		1	mg/Kg	100	18.9	105	75-125	0	20
Lead	114		1	mg/Kg	100	16.7	97	75-125	4.5	20
Selenium	94.5		3	mg/Kg	100	4.62	90	75-125	1.7	20
Vanadium	137		0.5	mg/Kg	100	37.0	100	75-125	0	20
Zinc	139		5	mg/Kg	100	44.9	94	75-125	2.1	20
Barium	160		1	mg/Kg	100	62.5	98	75-125	3.2	20
Molybdenum	89.2		1	mg/Kg	100	1.04	88	75-125	0	20
Antimony	57.4	M	3	mg/Kg	100	3.13	54	75-125	0.9	20
Arsenic	105		1	mg/Kg	100	5.17	100	75-125	1	20
Nickel	108		1.5	mg/Kg	100	19.6	88	75-125	2.7	20
Silver	93.0		0.5	mg/Kg	100	ND	93	75-125	0.5	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0021										
Blank (B8G0021-BLK1)				Prepared: 07/23/2018 Analyzed: 07/25/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.82			mg/kg	2.00		90.9	60-140		
LCS (B8G0021-BS1)				Prepared: 07/23/2018 Analyzed: 07/25/2018						
Diesel	44.0		2.50	mg/kg	50.0		87.9	70-130		
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.00		97.0	60-140		
LCS Dup (B8G0021-BSD1)				Prepared: 07/23/2018 Analyzed: 07/25/2018						
Diesel	44.0		2.50	mg/kg	50.1		88.0	70-130	0.185	20
Surrogate: n-Octacosane (c28)	1.88			mg/kg	2.00		93.7	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193827										
Duplicate (QC1193827DUP1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	310		400	ug/Kg	0	309		-	0.3	20
LCS (QC1193827LCS1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	38200		400	ug/Kg	40000	NA	96	80-120		
Method Blank (QC1193827MB1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	ND		400	ug/Kg		NA		-		
MS (QC1193827MS2)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	41000		400	ug/Kg	40000	309	102	75-125		
Hexavalent Chromium	40700		400	ug/Kg	40000	309	101	75-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193772										
LCS (QC1193772LCS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	0.88		0.14	mg/Kg	0.83	NA	106	80-120		
Method Blank (QC1193772MB1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193772MS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	0.80		0.14	mg/Kg	0.83	ND	96	75-125		
MSD (QC1193772MSD1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	0.82		0.14	mg/Kg	0.83	ND	99	75-125	2.5	20
Batch: QC1193882										
LCS (QC1193882LCS1)		**Source: NA**		Prepared & Analyzed: 07/30/2018						
Mercury	1.12	L	0.14	mg/Kg	0.83	NA	135	80-120		
Method Blank (QC1193882MB1)		**Source: NA**		Prepared & Analyzed: 07/30/2018						
Mercury	ND		0.14	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

PAH (SIM)_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193740										
LCS (QC1193740LCS1)		**Source: NA**		Prepared: 07/26/2018 Analyzed: 07/27/2018						
Benz(a)anthracene	41		10	ug/Kg	50	NA	82	61-147		
Indeno(1,2,3-cd)pyrene	36		10	ug/Kg	50	NA	72	58-144		
Fluorene	37		10	ug/Kg	50	NA	74	63-130		
Fluoranthene	42		10	ug/Kg	50	NA	84	68-139		
Dibenz(a,h)anthracene	31		10	ug/Kg	50	NA	62	52-144		
Chrysene	37		10	ug/Kg	50	NA	74	66-130		
Benzo(k)fluoranthene	46		10	ug/Kg	50	NA	92	64-142		
Benzo(g,h,i)perylene	31		10	ug/Kg	50	NA	62	54-135		
Naphthalene	36		10	ug/Kg	50	NA	72	50-130		
Benzo(a)pyrene	38		10	ug/Kg	50	NA	76	36-168		
2-Methylnaphthalene	39		10	ug/Kg	50	NA	78	59-130		
Anthracene	34		10	ug/Kg	50	NA	68	55-136		
Acenaphthylene	39		10	ug/Kg	50	NA	78	52-130		
Acenaphthene	36		10	ug/Kg	50	NA	72	58-130		
1-Methylnaphthalene	37		10	ug/Kg	50	NA	74	38-130		
Benzo(b)fluoranthene	44		10	ug/Kg	50	NA	88	63-147		
Pyrene	40		10	ug/Kg	50	NA	80	68-134		
Phenanthrene	37		10	ug/Kg	50	NA	74	65-132		
Surrogate: 2-Fluorobiphenyl (SUR)	33.026			ug/Kg	50	NA	66	30-120		
Surrogate: p-Terphenyl (SUR)	33.20			ug/Kg	50	NA	66	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	39.048			ug/Kg	50	NA	78	27-125		
Method Blank (QC1193740MB1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Chrysene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Fluoranthene	ND		10	ug/Kg		NA		-		
Fluorene	ND		10	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Phenanthrene	ND		10	ug/Kg		NA		-		
Pyrene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Acenaphthylene	ND		10	ug/Kg		NA		-		
Acenaphthene	ND		10	ug/Kg		NA		-		
Benzo(a)pyrene	ND		10	ug/Kg		NA		-		
Surrogate: Nitrobenzene-d5 (SUR)	37.234			ug/Kg	50	NA	74	27-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

PAH (SIM)_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193740 (Continued)										
Method Blank (QC1193740MB1)		**Source: NA**			Prepared & Analyzed: 07/26/2018					
Surrogate: p-Terphenyl (SUR)	32.40			ug/Kg	50	NA	65	33-155		
Surrogate: 2-Fluorobiphenyl (SUR)	32.822			ug/Kg	50	NA	66	30-120		
Batch: QC1193852										
LCS (QC1193852LCS1)		**Source: NA**			Prepared & Analyzed: 07/30/2018					
Dibenz(a,h)anthracene	38		10	ug/Kg	50	NA	76	52-144		
Acenaphthylene	40		10	ug/Kg	50	NA	80	52-130		
Fluoranthene	42		10	ug/Kg	50	NA	84	68-139		
Benzo(k)fluoranthene	44		10	ug/Kg	50	NA	88	64-142		
Benzo(g,h,i)perylene	33		10	ug/Kg	50	NA	66	54-135		
Benzo(b)fluoranthene	44		10	ug/Kg	50	NA	88	63-147		
Benzo(a)pyrene	39		10	ug/Kg	50	NA	78	36-168		
Benz(a)anthracene	42		10	ug/Kg	50	NA	84	61-147		
Anthracene	38		10	ug/Kg	50	NA	76	55-136		
Chrysene	36		10	ug/Kg	50	NA	72	66-130		
Acenaphthene	38		10	ug/Kg	50	NA	76	58-130		
1-Methylnaphthalene	38		10	ug/Kg	50	NA	76	38-130		
2-Methylnaphthalene	40		10	ug/Kg	50	NA	80	59-130		
Fluorene	38		10	ug/Kg	50	NA	76	63-130		
Indeno(1,2,3-cd)pyrene	39		10	ug/Kg	50	NA	78	58-144		
Pyrene	40		10	ug/Kg	50	NA	80	68-134		
Phenanthrene	38		10	ug/Kg	50	NA	76	65-132		
Naphthalene	38		10	ug/Kg	50	NA	76	50-130		
Surrogate: 2-Fluorobiphenyl (SUR)	31.871			ug/Kg	50	NA	64	30-120		
Surrogate: p-Terphenyl (SUR)	33.3			ug/Kg	50	NA	67	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	39.269			ug/Kg	50	NA	79	27-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

PAH (SIM)_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193852 (Continued)										
Method Blank (QC1193852MB1)		**Source: NA**		Prepared & Analyzed: 07/30/2018						
Acenaphthene	ND		10	ug/Kg		NA		-		
Benzo(a)pyrene	ND		10	ug/Kg		NA		-		
Pyrene	ND		10	ug/Kg		NA		-		
Phenanthrene	ND		10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		10	ug/Kg		NA		-		
Fluorene	ND		10	ug/Kg		NA		-		
Fluoranthene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Chrysene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
Acenaphthylene	ND		10	ug/Kg		NA		-		
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
Surrogate: p-Terphenyl (SUR)	36.7			ug/Kg	50	NA	73	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	38.66			ug/Kg	50	NA	77	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	32.205			ug/Kg	50	NA	64	30-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Polychlorinated Biphenyls_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193700										
LCS (QC1193700LCS1)		**Source: NA**		Prepared & Analyzed: 07/25/2018						
PCB-1016	340	L2	50	ug/Kg	500	NA	68	70-130		
PCB-1260	310	L2	50	ug/Kg	500	NA	62	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	29.6			ug/Kg	50	NA	59	50-150		
Method Blank (QC1193700MB1)		**Source: NA**		Prepared & Analyzed: 07/25/2018						
PCB-1242	ND		50	ug/Kg		NA		-		
PCB-1268	ND		50	ug/Kg		NA		-		
PCB-1262	ND		50	ug/Kg		NA		-		
PCB-1260	ND		50	ug/Kg		NA		-		
PCB-1248	ND		50	ug/Kg		NA		-		
PCB-1232	ND		50	ug/Kg		NA		-		
PCB-1016	ND		50	ug/Kg		NA		-		
PCB-1221	ND		50	ug/Kg		NA		-		
PCB-1254	ND		50	ug/Kg		NA		-		
Surrogate: Decachlorobiphenyl DCB (SUR)	40.3			ug/Kg	50	NA	81	50-150		
MS (QC1193700MS1)		**Source: NA**		Prepared & Analyzed: 07/25/2018						
PCB-1260	460		50	ug/Kg	500	ND	92	70-130		
PCB-1016	500		50	ug/Kg	500	ND	100	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	42.5			ug/Kg	50	NA	85	50-150		
MSD (QC1193700MSD1)		**Source: NA**		Prepared & Analyzed: 07/25/2018						
PCB-1016	540		50	ug/Kg	500	ND	108	70-130	7.7	20
PCB-1260	480		50	ug/Kg	500	ND	96	70-130	4.3	20
Surrogate: Decachlorobiphenyl DCB (SUR)	39.9			ug/Kg	50	NA	80	50-150		
Batch: QC1193844										
LCS (QC1193844LCS1)		**Source: NA**		Prepared & Analyzed: 07/30/2018						
PCB-1260	420		50	ug/Kg	500	NA	84	70-130		
PCB-1016	470		50	ug/Kg	500	NA	94	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	36.2			ug/Kg	50	NA	72	50-150		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Polychlorinated Biphenyls_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193844 (Continued)										
Method Blank (QC1193844MB1)		**Source: NA**		Prepared & Analyzed: 07/30/2018						
PCB-1221	ND		50	ug/Kg		NA		-		
PCB-1242	ND		50	ug/Kg		NA		-		
PCB-1268	ND		50	ug/Kg		NA		-		
PCB-1260	ND		50	ug/Kg		NA		-		
PCB-1248	ND		50	ug/Kg		NA		-		
PCB-1232	ND		50	ug/Kg		NA		-		
PCB-1016	ND		50	ug/Kg		NA		-		
PCB-1262	ND		50	ug/Kg		NA		-		
PCB-1254	ND		50	ug/Kg		NA		-		
Surrogate: Decachlorobiphenyl DCB (SUR)	36			ug/Kg	50	NA	72	50-150		
MS (QC1193844MS1)		**Source: NA**		Prepared & Analyzed: 07/30/2018						
PCB-1260	510		50	ug/Kg	500	ND	102	70-130		
PCB-1016	490		50	ug/Kg	500	ND	98	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	42			ug/Kg	50	NA	84	50-150		
MSD (QC1193844MSD1)		**Source: NA**		Prepared & Analyzed: 07/30/2018						
PCB-1016	320	M	50	ug/Kg	500	ND	64	70-130	42	20
PCB-1260	320	M	50	ug/Kg	500	ND	64	70-130	45.8	20
Surrogate: Decachlorobiphenyl DCB (SUR)	27.2			ug/Kg	50	NA	54	50-150		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193739										
LCS (QC1193739LCS1)		**Source: NA**		Prepared: 07/26/2018 Analyzed: 07/27/2018						
Benzo(b)fluoranthene	1600		250	ug/Kg	2000	NA	80	62-132		
1,2,4-Trichlorobenzene	1200		250	ug/Kg	2000	NA	60	57-112		
1,4-Dichlorobenzene	1100	L	250	ug/Kg	2000	NA	55	67-113		
2,4,5-Trichlorophenol	1700		250	ug/Kg	2000	NA	85	59-121		
2,4-Dimethylphenol	1400		250	ug/Kg	2000	NA	70	68-120		
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	NA	75	68-115		
2-Chlorophenol	1300		250	ug/Kg	2000	NA	65	61-120		
3 and 4-Methylphenol (m and p-Cresol)	1500		400	ug/Kg	2000	NA	75	55-126		
4-Chloro-3-methylphenol	1600		250	ug/Kg	2000	NA	80	55-129		
Acenaphthene	1400		250	ug/Kg	2000	NA	70	70-113		
Chrysene	1500		250	ug/Kg	2000	NA	75	63-133		
N-Nitrosodi-n-propylamine (NDPA)	1400		250	ug/Kg	2000	NA	70	53-134		
Pentachlorophenol	1300		1200	ug/Kg	2000	NA	65	29-138		
Phenol	1300		250	ug/Kg	2000	NA	65	55-131		
Pyrene	1600		250	ug/Kg	2000	NA	80	73-131		
4-Nitrophenol	1400		250	ug/Kg	2000	NA	70	30-130		
Surrogate: 2,4,6-Tribromophenol (SUR)	1616.324			ug/Kg	2000	NA	81	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1417.115			ug/Kg	2000	NA	71	41-125		
Surrogate: 2-Fluorophenol (SUR)	1327.244			ug/Kg	2000	NA	66	13-153		
Surrogate: Nitrobenzene-d5 (SUR)	1320.043			ug/Kg	2000	NA	66	27-125		
Surrogate: Phenol-d5 (SUR)	1467.461			ug/Kg	2000	NA	73	10-110		
Surrogate: p-Terphenyl (SUR)	1645.801			ug/Kg	2000	NA	82	33-155		
Method Blank (QC1193739MB1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
Acenaphthene	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
3-Nitroaniline	ND		250	ug/Kg		NA		-		
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193739 (Continued)										
Method Blank (QC1193739MB1)		**Source: NA**			Prepared & Analyzed: 07/26/2018					
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
Chrysene	ND		250	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
Acenaphthylene	ND		250	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		
Hexachloroethane	ND		250	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		
Naphthalene	ND		250	ug/Kg		NA		-		
Nitrobenzene	ND		1200	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
4-Nitrophenol	ND		250	ug/Kg		NA		-		
Phenol	ND		250	ug/Kg		NA		-		
Fluorene	ND		250	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
Total Cresol	ND		400	ug/Kg		NA		-		
Phenanthrene	ND		250	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Benz(a)anthracene	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193739 (Continued)										
Method Blank (QC1193739MB1)		**Source: NA**			Prepared & Analyzed: 07/26/2018					
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		
Dibenzofuran	ND		250	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Surrogate: 2,4,6-Tribromophenol (SUR)	1343.16			ug/Kg	2000	NA	67	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1258.36			ug/Kg	2000	NA	63	41-125		
Surrogate: 2-Fluorophenol (SUR)	1182.099			ug/Kg	2000	NA	59	13-153		
Surrogate: Phenol-d5 (SUR)	1342.747			ug/Kg	2000	NA	67	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1114.947			ug/Kg	2000	NA	56	27-125		
Surrogate: p-Terphenyl (SUR)	1580.516			ug/Kg	2000	NA	79	33-155		
MS (QC1193739MS1)		**Source: NA**			Prepared: 07/26/2018 Analyzed: 07/27/2018					
Pyrene	1600		250	ug/Kg	2000	ND	80	53-129		
Phenol	1400		250	ug/Kg	2000	ND	70	46-116		
N-Nitrosodi-n-propylamine (NDPA)	1500		250	ug/Kg	2000	ND	75	41-127		
3 and 4-Methylphenol (m and p-Cresol)	1600		400	ug/Kg	2000	ND	80	33-116		
Chrysene	1600		250	ug/Kg	2000	ND	80	68-120		
Benzo(b)fluoranthene	1700		250	ug/Kg	2000	ND	85	59-126		
Acenaphthene	1400		250	ug/Kg	2000	ND	70	57-99		
4-Nitrophenol	1400		250	ug/Kg	2000	ND	70	37-107		
4-Chloro-3-methylphenol	1600		250	ug/Kg	2000	ND	80	33-120		
Pentachlorophenol	1400		1200	ug/Kg	2000	ND	70	43-120		
1,2,4-Trichlorobenzene	1300		250	ug/Kg	2000	ND	65	35-93		
1,4-Dichlorobenzene	1200		250	ug/Kg	2000	ND	60	39-95		
2,4,5-Trichlorophenol	1700		250	ug/Kg	2000	ND	85	44-108		
2,4-Dimethylphenol	1400		250	ug/Kg	2000	ND	70	37-105		
2,4-Dinitrotoluene	1600		250	ug/Kg	2000	ND	80	48-109		
2-Chlorophenol	1400		250	ug/Kg	2000	ND	70	42-102		
Surrogate: Nitrobenzene-d5 (SUR)	1394.871			ug/Kg	2000	NA	70	27-125		
Surrogate: p-Terphenyl (SUR)	1649.331			ug/Kg	2000	NA	82	33-155		
Surrogate: Phenol-d5 (SUR)	1516.423			ug/Kg	2000	NA	76	10-110		
Surrogate: 2-Fluorophenol (SUR)	1370.062			ug/Kg	2000	NA	69	13-153		
Surrogate: 2,4,6-Tribromophenol (SUR)	1645.007			ug/Kg	2000	NA	82	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1427.581			ug/Kg	2000	NA	71	41-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193739 (Continued)										
MSD (QC1193739MSD1)		**Source: NA**		Prepared: 07/26/2018 Analyzed: 07/27/2018						
1,4-Dichlorobenzene	1100		250	ug/Kg	2000	ND	55	39-95	8.7	30
1,2,4-Trichlorobenzene	1100		250	ug/Kg	2000	ND	55	35-93	16.7	30
Pentachlorophenol	1300		1200	ug/Kg	2000	ND	65	43-120	7.4	30
2,4,5-Trichlorophenol	1500		250	ug/Kg	2000	ND	75	44-108	12.5	30
Benzo(b)fluoranthene	1500		250	ug/Kg	2000	ND	75	59-126	12.5	30
2,4-Dimethylphenol	1200		250	ug/Kg	2000	ND	60	37-105	15.4	30
2-Chlorophenol	1200		250	ug/Kg	2000	ND	60	42-102	15.4	30
3 and 4-Methylphenol (m and p-Cresol)	1400		400	ug/Kg	2000	ND	70	33-116	13.3	30
4-Chloro-3-methylphenol	1500		250	ug/Kg	2000	ND	75	33-120	6.5	30
Acenaphthene	1300		250	ug/Kg	2000	ND	65	57-99	7.4	30
Chrysene	1400		250	ug/Kg	2000	ND	70	68-120	13.3	30
N-Nitrosodi-n-propylamine (NDPA)	1300		250	ug/Kg	2000	ND	65	41-127	14.3	30
Phenol	1300		250	ug/Kg	2000	ND	65	46-116	7.4	30
Pyrene	1500		250	ug/Kg	2000	ND	75	53-129	6.5	30
4-Nitrophenol	1300		250	ug/Kg	2000	ND	65	37-107	7.4	30
2,4-Dinitrotoluene	1400		250	ug/Kg	2000	ND	70	48-109	13.3	30
Surrogate: 2,4,6-Tribromophenol (SUR)	1374.009			ug/Kg	2000	NA	69	34-143		
Surrogate: Nitrobenzene-d5 (SUR)	1191.416			ug/Kg	2000	NA	60	27-125		
Surrogate: 2-Fluorophenol (SUR)	1237.364			ug/Kg	2000	NA	62	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1208.259			ug/Kg	2000	NA	60	41-125		
Surrogate: Phenol-d5 (SUR)	1312.287			ug/Kg	2000	NA	66	10-110		
Surrogate: p-Terphenyl (SUR)	1376.905			ug/Kg	2000	NA	69	33-155		
Batch: QC1193835										
LCS (QC1193835LCS1)		**Source: NA**		Prepared: 07/28/2018 Analyzed: 07/30/2018						
Benzo(b)fluoranthene	1700		250	ug/Kg	2000	NA	85	62-132		
2,4-Dinitrotoluene	1700		250	ug/Kg	2000	NA	85	68-115		
2-Chlorophenol	1500		250	ug/Kg	2000	NA	75	61-120		
3 and 4-Methylphenol (m and p-Cresol)	1700		400	ug/Kg	2000	NA	85	55-126		
4-Chloro-3-methylphenol	1800		250	ug/Kg	2000	NA	90	55-129		
Acenaphthene	1500		250	ug/Kg	2000	NA	75	70-113		
2,4,5-Trichlorophenol	1800		250	ug/Kg	2000	NA	90	59-121		
Chrysene	1600		250	ug/Kg	2000	NA	80	63-133		
N-Nitrosodi-n-propylamine (NDPA)	1600		250	ug/Kg	2000	NA	80	53-134		
Pentachlorophenol	1400		1200	ug/Kg	2000	NA	70	29-138		
Phenol	1500		250	ug/Kg	2000	NA	75	55-131		
Pyrene	1700		250	ug/Kg	2000	NA	85	73-131		
4-Nitrophenol	1500		250	ug/Kg	2000	NA	75	30-130		
2,4-Dimethylphenol	1600		250	ug/Kg	2000	NA	80	68-120		
1,2,4-Trichlorobenzene	1500		250	ug/Kg	2000	NA	75	57-112		
1,4-Dichlorobenzene	1300	L	250	ug/Kg	2000	NA	65	67-113		
Surrogate: 2-Fluorobiphenyl (SUR)	1490.652			ug/Kg	2000	NA	75	41-125		
Surrogate: 2-Fluorophenol (SUR)	1487.787			ug/Kg	2000	NA	74	13-153		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193835 (Continued)										
LCS (QC1193835LCS1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Surrogate: 2,4,6-Tribromophenol (SUR)	1560.679			ug/Kg	2000	NA	78	34-143		
Surrogate: Nitrobenzene-d5 (SUR)	1497.009			ug/Kg	2000	NA	75	27-125		
Surrogate: Phenol-d5 (SUR)	1613.172			ug/Kg	2000	NA	81	10-110		
Surrogate: p-Terphenyl (SUR)	1590.395			ug/Kg	2000	NA	80	33-155		
Method Blank (QC1193835MB1)		**Source: NA**		Prepared: 07/28/2018 Analyzed: 07/30/2018						
Phenol	ND		250	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		
Naphthalene	ND		250	ug/Kg		NA		-		
Nitrobenzene	ND		1200	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
Phenanthrene	ND		250	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
Total Cresol	ND		400	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		
Chrysene	ND		250	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
Dibenzofuran	ND		250	ug/Kg		NA		-		
Hexachloroethane	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
Fluorene	ND		250	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
3-Nitroaniline	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193835 (Continued)										
Method Blank (QC1193835MB1)		**Source: NA**			Prepared: 07/28/2018 Analyzed: 07/30/2018					
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
4-Nitrophenol	ND		250	ug/Kg		NA		-		
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
Acenaphthylene	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Benz(a)anthracene	ND		250	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
Acenaphthene	ND		250	ug/Kg		NA		-		
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		
Surrogate: Nitrobenzene-d5 (SUR)	1379.979			ug/Kg	2000	NA	69	27-125		
Surrogate: Phenol-d5 (SUR)	1538.567			ug/Kg	2000	NA	77	10-110		
Surrogate: p-Terphenyl (SUR)	1608.415			ug/Kg	2000	NA	80	33-155		
Surrogate: 2,4,6-Tribromophenol (SUR)	1376.629			ug/Kg	2000	NA	69	34-143		
Surrogate: 2-Fluorophenol (SUR)	1437.664			ug/Kg	2000	NA	72	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1403.038			ug/Kg	2000	NA	70	41-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193835 (Continued)										
MS (QC1193835MS1)		**Source: NA**		Prepared: 07/28/2018 Analyzed: 07/30/2018						
1,2,4-Trichlorobenzene	1600		250	ug/Kg	2000	ND	80	35-93		
1,4-Dichlorobenzene	1400		250	ug/Kg	2000	ND	70	39-95		
2,4-Dimethylphenol	1900		250	ug/Kg	2000	ND	95	37-105		
2,4,5-Trichlorophenol	2200	M	250	ug/Kg	2000	ND	110	44-108		
2,4-Dinitrotoluene	2100		250	ug/Kg	2000	ND	105	48-109		
2-Chlorophenol	1800		250	ug/Kg	2000	ND	90	42-102		
3 and 4-Methylphenol (m and p-Cresol)	2000		400	ug/Kg	2000	ND	100	33-116		
4-Chloro-3-methylphenol	2200		250	ug/Kg	2000	ND	110	33-120		
4-Nitrophenol	1900		250	ug/Kg	2000	ND	95	37-107		
Acenaphthene	1800		250	ug/Kg	2000	ND	90	57-99		
Chrysene	2100		250	ug/Kg	2000	ND	105	68-120		
N-Nitrosodi-n-propylamine (NDPA)	1900		250	ug/Kg	2000	ND	95	41-127		
Pentachlorophenol	1900		1200	ug/Kg	2000	ND	95	43-120		
Phenol	1900		250	ug/Kg	2000	ND	95	46-116		
Pyrene	2100		250	ug/Kg	2000	ND	105	53-129		
Benzo(b)fluoranthene	2300		250	ug/Kg	2000	ND	115	59-126		
Surrogate: 2,4,6-Tribromophenol (SUR)	1642.201			ug/Kg	2000	NA	82	34-143		
Surrogate: Nitrobenzene-d5 (SUR)	1517.886			ug/Kg	2000	NA	76	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	1490.894			ug/Kg	2000	NA	75	41-125		
Surrogate: 2-Fluorophenol (SUR)	1548.477			ug/Kg	2000	NA	77	13-153		
Surrogate: Phenol-d5 (SUR)	1641.538			ug/Kg	2000	NA	82	10-110		
Surrogate: p-Terphenyl (SUR)	1578.328			ug/Kg	2000	NA	79	33-155		
MSD (QC1193835MSD1)		**Source: NA**		Prepared: 07/28/2018 Analyzed: 07/30/2018						
Benzo(b)fluoranthene	1600	M	250	ug/Kg	2000	ND	80	59-126	35.9	30
2,4-Dimethylphenol	1500		250	ug/Kg	2000	ND	75	37-105	23.5	30
2,4-Dinitrotoluene	1500	M	250	ug/Kg	2000	ND	75	48-109	33.3	30
2-Chlorophenol	1400		250	ug/Kg	2000	ND	70	42-102	25	30
3 and 4-Methylphenol (m and p-Cresol)	1500		400	ug/Kg	2000	ND	75	33-116	28.6	30
4-Chloro-3-methylphenol	1600	M	250	ug/Kg	2000	ND	80	33-120	31.6	30
Acenaphthene	1400		250	ug/Kg	2000	ND	70	57-99	25	30
1,4-Dichlorobenzene	1100		250	ug/Kg	2000	ND	55	39-95	24	30
Chrysene	1500	M	250	ug/Kg	2000	ND	75	68-120	33.3	30
N-Nitrosodi-n-propylamine (NDPA)	1500		250	ug/Kg	2000	ND	75	41-127	23.5	30
Phenol	1500		250	ug/Kg	2000	ND	75	46-116	23.5	30
Pyrene	1600		250	ug/Kg	2000	ND	80	53-129	27	30
4-Nitrophenol	1400	M	250	ug/Kg	2000	ND	70	37-107	30.3	30
2,4,5-Trichlorophenol	1700		250	ug/Kg	2000	ND	85	44-108	25.6	30
1,2,4-Trichlorobenzene	1300		250	ug/Kg	2000	ND	65	35-93	20.7	30
Pentachlorophenol	1300	M	1200	ug/Kg	2000	ND	65	43-120	37.5	30
Surrogate: 2-Fluorobiphenyl (SUR)	1428.423			ug/Kg	2000	NA	71	41-125		
Surrogate: 2-Fluorophenol (SUR)	1457.254			ug/Kg	2000	NA	73	13-153		
Surrogate: Phenol-d5 (SUR)	1544.758			ug/Kg	2000	NA	77	10-110		
Surrogate: p-Terphenyl (SUR)	1559.833			ug/Kg	2000	NA	78	33-155		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193835 (Continued)										
MSD (QC1193835MSD1)		**Source: NA**			Prepared & Analyzed: 07/28/2018					
Surrogate: 2,4,6-Tribromophenol (SUR)	1538.198			ug/Kg	2000	NA	77	34-143		
Surrogate: Nitrobenzene-d5 (SUR)	1431.691			ug/Kg	2000	NA	72	27-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020										
Blank (B8G0020-BLK1)				Prepared & Analyzed: 07/23/2018						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020 (Continued)										
Blank (B8G0020-BLK1)				Prepared & Analyzed: 07/23/2018						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		8.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	49			µg/Kg	50.0		97.8	60-140		
Surrogate: 4-Bromofluorobenzene	47			µg/Kg	50.0		93.9	60-140		
Surrogate: 1,2-Dichloroethane-d4	53			µg/Kg	50.0		105	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		97.9	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020 (Continued)										
LCS (B8G0020-BS1)				Prepared & Analyzed: 07/23/2018						
Benzene	50		1.0	µg/Kg	50.0		99.6	70-130		
Bromobenzene	50		1.0	µg/Kg	50.0		99.0	70-130		
Bromodichloromethane	50		1.0	µg/Kg	50.0		99.3	70-130		
Bromoform	47		1.0	µg/Kg	50.0		94.9	70-130		
Chlorobenzene	48		1.0	µg/Kg	50.0		95.9	70-130		
Chloroethane	48		5.0	µg/Kg	50.0		96.0	70-130		
Chloroform	48		1.0	µg/Kg	50.0		96.0	70-130		
4-Chlorotoluene	50		1.0	µg/Kg	50.0		100	70-130		
Dibromomethane	49		1.0	µg/Kg	50.0		97.5	70-130		
1,2-Dichlorobenzene	49		1.0	µg/Kg	50.0		97.5	70-130		
1,1-Dichloroethene	50		1.0	µg/Kg	50.0		99.3	70-130		
1,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.3	70-130		
2,2-Dichloropropane	48		1.0	µg/Kg	50.0		96.9	70-130		
1,1-Dichloropropene	47		1.0	µg/Kg	50.0		94.6	70-130		
Diethyl Ether	48		5.0	µg/Kg	50.0		96.0	70-130		
Diisopropyl Ether (DIPE)	50		1.0	µg/Kg	50.0		99.3	70-130		
Ethylbenzene	51		1.0	µg/Kg	50.0		101	70-130		
Hexachloro-1,3-Butadiene	44		1.0	µg/Kg	50.0		88.2	70-130		
Methylene Chloride	55		10	µg/Kg	50.0		109	70-130		
Methyl-t-Butyl Ether (MTBE)	48		1.0	µg/Kg	50.0		96.6	70-130		
Naphthalene	47		10	µg/Kg	50.0		93.9	70-130		
Styrene	52		1.0	µg/Kg	50.0		104	70-130		
tert-Butylbenzene	47		1.0	µg/Kg	50.0		93.7	70-130		
Tetrachloroethene	47		1.0	µg/Kg	50.0		93.8	70-130		
Toluene	50		1.0	µg/Kg	50.0		100	70-130		
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		98.3	70-130		
Trichloroethene	48		1.0	µg/Kg	50.0		96.8	70-130		
1,3,5-Trimethylbenzene	52		1.0	µg/Kg	50.0		103	70-130		
Vinyl Chloride	45		1.0	µg/Kg	50.0		90.6	70-130		
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		99.7	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		99.7	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		100	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020 (Continued)										
LCS Dup (B8G0020-BSD1)				Prepared & Analyzed: 07/23/2018						
Benzene	47		1.0	µg/Kg	50.0		94.5	70-130	5.28	20
Bromobenzene	49		1.0	µg/Kg	50.0		98.0	70-130	0.995	20
Bromodichloromethane	50		1.0	µg/Kg	50.0		99.4	70-130	0.0805	20
Bromoform	47		1.0	µg/Kg	50.0		94.7	70-130	0.232	20
Chlorobenzene	47		1.0	µg/Kg	50.0		93.7	70-130	2.28	20
Chloroethane	49		5.0	µg/Kg	50.0		98.3	70-130	2.35	20
Chloroform	48		1.0	µg/Kg	50.0		95.1	70-130	0.942	20
4-Chlorotoluene	49		1.0	µg/Kg	50.0		98.0	70-130	2.20	20
Dibromomethane	49		1.0	µg/Kg	50.0		98.1	70-130	0.634	20
1,2-Dichlorobenzene	48		1.0	µg/Kg	50.0		95.7	70-130	1.86	20
1,1-Dichloroethene	47		1.0	µg/Kg	50.0		94.4	70-130	5.10	20
1,2-Dichloropropane	48		1.0	µg/Kg	50.0		96.1	70-130	3.28	20
2,2-Dichloropropane	46		1.0	µg/Kg	50.0		92.6	70-130	4.54	20
1,1-Dichloropropene	44		1.0	µg/Kg	50.0		88.7	70-130	6.44	20
Diethyl Ether	48		5.0	µg/Kg	50.0		95.6	70-130	0.459	20
Diisopropyl Ether (DIPE)	48		1.0	µg/Kg	50.0		96.8	70-130	2.57	20
Ethylbenzene	48		1.0	µg/Kg	50.0		95.7	70-130	5.59	20
Hexachloro-1,3-Butadiene	44		1.0	µg/Kg	50.0		87.6	70-130	0.683	20
Methylene Chloride	53		10	µg/Kg	50.0		106	70-130	3.23	20
Methyl-t-Butyl Ether (MTBE)	48		1.0	µg/Kg	50.0		96.2	70-130	0.373	20
Naphthalene	47		10	µg/Kg	50.0		93.0	70-130	0.984	20
Styrene	51		1.0	µg/Kg	50.0		102	70-130	1.61	20
tert-Butylbenzene	46		1.0	µg/Kg	50.0		91.5	70-130	2.42	20
Tetrachloroethene	45		1.0	µg/Kg	50.0		89.4	70-130	4.80	20
Toluene	49		1.0	µg/Kg	50.0		97.5	70-130	3.01	20
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		97.6	70-130	0.653	20
Trichloroethene	46		1.0	µg/Kg	50.0		92.9	70-130	4.18	20
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		98.0	70-130	5.23	20
Vinyl Chloride	46		1.0	µg/Kg	50.0		92.3	70-130	1.82	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		100	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.2	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
0	0
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
L2	LCS did not meet recovery criteria, however, the MS and MSD met LCS recovery criteria, validating the batch.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 2

PAL WO#: PS07019

Client Name	Langan
Address	515 South Flower St #2860 Los Angeles CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	(909) 771-8217
Project Name/Number	Agua Mansa / 72101350
P.O. Number	72101350
Sampled By	Connor Ridge

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH 8015M	metals CAM 6010/7000	VOCs 8260B	SVOCs/PAHs 8270C	CDI 7199	PAHs 8270C SIM	Dioxins 1613	PCBs 8082						
1	MAP-SB-2-30'	7/18	0850	S	VOAs; 8oz jar	X	X	X	X										
2	MAP-SB-2-50'	7/18	0915	S	VOAs; 8oz jar	X	X	X	X										
3	TB4-2018-07-18	7/18	0800	W	VOAs														
4	~~MAP-SB-1-1'~~	~~7/18~~	~~1005~~	~~S~~	~~8oz jar~~		~~X~~		~~X~~	~~X~~	~~CR~~	~~07-18-18~~							
5	~~MAP-SB-1-5'~~	~~7/18~~	~~1010~~	~~S~~	~~VOAs; 8oz jar~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~CR~~	~~07-18-18~~							
6	~~MAP-SB-1-10'~~	~~7/18~~		~~S~~	~~8oz jar~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~CR~~	~~07-18-18~~							
4	MAP-SB-1-15'	7/18	1025	S	8oz jar	X													
5	MAP-SB-1-20'	7/18	1030	S	VOAs; 8oz jar			X											
6	SMC-SB-2-1'	7/18	1140	S	8oz jar	X	X		X	X	X		X						
7	SMC-SB-2-5'	7/18	1150	S	8oz jar							X	X						

G-3223

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	6.5°C MV	

RELINQUISHED BY
Signature: Brad McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/20/18
TIME: 1040

RECEIVED BY
Signature: M Kasmeda
Print: M LaPenzveka
Company: PAL
DATE: 7/20/18
TIME: 1040

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 2 of 2

PAL WO#: P807019

Client Name	Langan
Address	515 South Flower St #2860 Los Angeles CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	(909) 771-8217
Project Name/Number	Aqua Mansa 721013501
P.O. Number	721013501
Sampled By	Conor Ridge

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Metals 6010/7000	CrVI 7199	SVOCs 8270c	CrVI 7199	PAHs 8270csim	Dioxins 1613	PCBs 8082
8	SMC-SB-2-10'	7/18	1200	S	8 oz jar	X	X	X	X	X	X	X
9	12 SMC-SB-2-30'	7/18	1400	S	8 oz jar	X	X	X	X	X	X	X
10	8 SMC-SB-1-5'	7/18	1445	S	8 oz jar	X	X	X	X	X	X	X
11	4 SMC-SB-1-10'	7/18	1455	S	8 oz jar	X	X	X	X	X	X	X
12	5 SMC-SB-1-30'	7/18	1515	S	8 oz jar	X	X	X	X	X	X	X
13	8 SMC-SB-3-10'	7/19	0930	S	8 oz jar	X	X	X	X	X	X	X
14	SMC-SB-3-20'	7/19	0945	S	8 oz jar	X	X	X	X	X	X	X
15	8 SMC-SB-3-30'	7/19	1015	S	8 oz jar	X	X	X	X	X		X
16	9 SMC-SB-3-40'	7/19	1030	S	8 oz jar	X	X	X	X	X		X
17	0 EB1-2018-07-19	7/19	1230		VOAs; Poly (NH)							

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	6.5°C MV	

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/20/18
TIME: 10:40

RECEIVED BY
Signature: MValenzuela
Print: MValenzuela
Company: PAL
DATE: 7/20/18
TIME: 10:40

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3224

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID

Cooler 1 OF 1

Client Langan

Date Received: 7/20/18

Courier ⊗ CLIENT ○ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	6.5	0.0	6.5	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ⊗ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm	X		

NOTES

Initials	Date	Initials	Date
KW	7/20/18		

Performance Analytical Laboratories, Inc.

ELAP 2960

August 14, 2018

Change Order Report

Langan
32 Executive Park, Suite 130
Irvine, CA 92614-4721

Re: DTSC Riverside
Project No. : Agua Mansa
Work Order: P807019

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/20/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,

Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 5

Qualifiers and Definitions 9

Chain of Custody PDF 10

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807019-07	SMC-SB-2-5'		Solid	07/18/2018	07/20/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-2-5' **P807019-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1194210)							
Antimony	ND	mg/Kg	1	3	08/10/2018	EPA 6010B	
Arsenic	**13.8**	mg/Kg	1	1	08/10/2018	EPA 6010B	
Barium	**109**	mg/Kg	1	1	08/10/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	08/10/2018	EPA 6010B	
Cadmium	**2.32**	mg/Kg	1	0.5	08/10/2018	EPA 6010B	
Chromium	**27.4**	mg/Kg	1	1	08/10/2018	EPA 6010B	
Cobalt	**4.09**	mg/Kg	1	0.5	08/10/2018	EPA 6010B	
Copper	**10.4**	mg/Kg	1	1	08/10/2018	EPA 6010B	
Lead	**63.1**	mg/Kg	1	1	08/10/2018	EPA 6010B	
Molybdenum	**2.74**	mg/Kg	1	1	08/10/2018	EPA 6010B	
Nickel	**8.50**	mg/Kg	1	1.5	08/10/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	08/10/2018	EPA 6010B	
Silver	**0.96**	mg/Kg	1	0.5	08/10/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	08/10/2018	EPA 6010B	
Vanadium	**23.4**	mg/Kg	1	0.5	08/10/2018	EPA 6010B	
Zinc	**39.7**	mg/Kg	1	5	08/10/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1194152)							
Hexavalent Chromium	**7790**	ug/Kg	1	400	08/09/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1194187)							
Mercury	ND	mg/Kg	1	0.14	08/09/2018	EPA 7471A	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1194210										
LCS (QC1194210LCS1)		**Source: NA**		Prepared: 08/09/2018 Analyzed: 08/10/2018						
Arsenic	93.1		1	mg/Kg	100	NA	93	80-120		
Barium	101		1	mg/Kg	100	NA	101	80-120		
Antimony	99.6		3	mg/Kg	100	NA	100	80-120		
Thallium	98.0		3	mg/Kg	100	NA	98	80-120		
Nickel	102		1.5	mg/Kg	100	NA	102	80-120		
Silver	85.3		0.5	mg/Kg	100	NA	85	80-120		
Molybdenum	96.3		1	mg/Kg	100	NA	96	80-120		
Vanadium	101		0.5	mg/Kg	100	NA	101	80-120		
Zinc	104		5	mg/Kg	100	NA	104	80-120		
Cadmium	96.9		0.5	mg/Kg	100	NA	97	80-120		
Beryllium	97.3		0.5	mg/Kg	100	NA	97	80-120		
Selenium	91.9		3	mg/Kg	100	NA	92	80-120		
Chromium	97.0		1	mg/Kg	100	NA	97	80-120		
Cobalt	100		0.5	mg/Kg	100	NA	100	80-120		
Copper	95.1		1	mg/Kg	100	NA	95	80-120		
Lead	98.6		1	mg/Kg	100	NA	99	80-120		
Method Blank (QC1194210MB1)		**Source: NA**		Prepared: 08/09/2018 Analyzed: 08/10/2018						
Zinc	ND		5	mg/Kg		NA		-		
Vanadium	ND		0.5	mg/Kg		NA		-		
Copper	ND		1	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1194210 (Continued)										
MS (QC1194210MS1)		**Source: NA**		Prepared: 08/09/2018 Analyzed: 08/10/2018						
Thallium	79.3		3	mg/Kg	100	ND	79	75-125		
Vanadium	134		0.5	mg/Kg	100	37.3	97	75-125		
Silver	81.6		0.5	mg/Kg	100	0.22	81	75-125		
Zinc	156		5	mg/Kg	100	75.4	81	75-125		
Cadmium	85.0		0.5	mg/Kg	100	0.53	84	75-125		
Copper	109		1	mg/Kg	100	22.0	87	75-125		
Cobalt	99.4	M	0.5	mg/Kg	100	54.2	45	75-125		
Antimony	41.8	M	3	mg/Kg	100	ND	42	75-125		
Arsenic	104		1	mg/Kg	100	13.8	90	75-125		
Barium	136		1	mg/Kg	100	46.5	90	75-125		
Beryllium	94.4		0.5	mg/Kg	100	ND	94	75-125		
Chromium	110		1	mg/Kg	100	18.2	92	75-125		
Selenium	22.3	M	3	mg/Kg	100	ND	22	75-125		
Lead	104		1	mg/Kg	100	23.8	80	75-125		
Nickel	99.3		1.5	mg/Kg	100	16.8	83	75-125		
Molybdenum	86.5		1	mg/Kg	100	0.55	86	75-125		
MSD (QC1194210MSD1)		**Source: NA**		Prepared: 08/09/2018 Analyzed: 08/10/2018						
Arsenic	112		1	mg/Kg	100	13.8	98	75-125	7.4	20
Molybdenum	91.4		1	mg/Kg	100	0.55	91	75-125	5.5	20
Antimony	46.5	M	3	mg/Kg	100	ND	47	75-125	10.6	20
Barium	150		1	mg/Kg	100	46.5	103	75-125	9.8	20
Beryllium	96.6		0.5	mg/Kg	100	ND	97	75-125	2.3	20
Chromium	118		1	mg/Kg	100	18.2	100	75-125	7	20
Copper	119		1	mg/Kg	100	22.0	97	75-125	8.8	20
Lead	112		1	mg/Kg	100	23.8	88	75-125	7.4	20
Cobalt	110	M	0.5	mg/Kg	100	54.2	56	75-125	10.1	20
Nickel	108		1.5	mg/Kg	100	16.8	91	75-125	8.4	20
Cadmium	91.1		0.5	mg/Kg	100	0.53	91	75-125	6.9	20
Selenium	17.8	M	3	mg/Kg	100	ND	18	75-125	22.4	20
Silver	85.7		0.5	mg/Kg	100	0.22	85	75-125	4.9	20
Thallium	83.7		3	mg/Kg	100	ND	84	75-125	5.4	20
Vanadium	143		0.5	mg/Kg	100	37.3	106	75-125	6.5	20
Zinc	176		5	mg/Kg	100	75.4	101	75-125	12	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1194152										
Duplicate (QC1194152DUP1)		**Source: NA**		Prepared & Analyzed: 08/08/2018						
Hexavalent Chromium	ND		400	ug/Kg		ND		-		20
LCS (QC1194152LCS1)		**Source: NA**		Prepared & Analyzed: 08/08/2018						
Hexavalent Chromium	41600		400	ug/Kg	40000	NA	104	80-120		
Method Blank (QC1194152MB1)		**Source: NA**		Prepared & Analyzed: 08/08/2018						
Hexavalent Chromium	ND		400	ug/Kg		NA		-		
MS (QC1194152MS1)		**Source: NA**		Prepared & Analyzed: 08/08/2018						
Hexavalent Chromium	41600		400	ug/Kg	40000	ND	104	75-125		
Hexavalent Chromium	39400		400	ug/Kg	40000	ND	99	75-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1194187										
LCS (QC1194187LCS1)		**Source: NA**		Prepared & Analyzed: 08/09/2018						
Mercury	0.90		0.14	mg/Kg	0.83	NA	108	80-120		
Method Blank (QC1194187MB1)		**Source: NA**		Prepared & Analyzed: 08/09/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1194187MS1)		**Source: NA**		Prepared & Analyzed: 08/09/2018						
Mercury	0.95		0.14	mg/Kg	0.83	0.03	111	75-125		
MSD (QC1194187MSD1)		**Source: NA**		Prepared & Analyzed: 08/09/2018						
Mercury	0.93		0.14	mg/Kg	0.83	0.03	108	75-125	2.1	20

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 2

PAL WO#: PS07019

Client Name	Langan
Address	515 South Flower St #2860 Los Angeles CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	(909) 771-8217
Project Name/Number	Agua Mansa / 721013501
P.O. Number	721013501
Sampled By	Connor Ridge

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH 8015M	metals CAM 6010/7000	VOCs 8260B	SVOCs/PAHs 8270C	CrVI 7199	PAHs 8270C SIM	Dioxins 1613	PCBs 8082
1	MAP-SB-2-30'	7/18	0850	S	VOAs; 8oz jar	X	X	X	X				
2	MAP-SB-2-50'	7/18	0915	S	VOAs; 8oz jar	X	X	X	X				
3	TB4-2018-07-18	7/18	0800	W	VOAs								
4	~~MAP-SB-1-1'~~	~~7/18~~	~~1005~~	~~S~~	~~8oz jar~~		~~X~~		~~X~~	~~X~~	~~CR~~	~~07-18-18~~	
5	~~MAP-SB-1-5'~~	~~7/18~~	~~1010~~	~~S~~	~~VOAs; 8oz jar~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~CR~~	~~07-18-18~~	
6	~~MAP-SB-1-10'~~	~~7/18~~		~~S~~	~~8oz jar~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~CR~~	~~07-18-18~~	
4	MAP-SB-1-15'	7/18	1025	S	8oz jar	X							
5	MAP-SB-1-20'	7/18	1030	S	VOAs; 8oz jar			X					
6	SMC-SB-2-1'	7/18	1140	S	8oz jar	X	X		X	X	X		X
7	SMC-SB-2-5'	7/18	1150	S	8oz jar							X	X

G-3235

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	6.5°C MV	

RELINQUISHED BY

Signature: Brad A. McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/20/18
TIME: 1040

RECEIVED BY

Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 7/20/18
TIME: 1040

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)

****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)

****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P807019

Client Name	Langan
Address	515 South Flower St #2860 Los Angeles CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	(909) 771-8217
Project Name/Number	Aqua Mansa 721013501
P.O. Number	721013501
Sampled By	Conor Ridge

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Metals 6010/7000	CrVI 7199	SVOCs 8270c	CrVI 7199	PAHs 8270csim	Dioxins 1613	PCBs 8082
8	SMC-SB-2-10'	7/18	1200	S	8 oz jar	X	X	X	X	X	X	X
9	12 SMC-SB-2-30'	7/18	1400	S	8 oz jar	X	X	X	X	X	X	X
10	13 SMC-SB-1-5'	7/18	1445	S	8 oz jar	X	X	X	X	X	X	X
11	14 SMC-SB-1-10'	7/18	1455	S	8 oz jar	X	X	X	X	X	X	X
12	15 SMC-SB-1-30'	7/18	1515	S	8 oz jar	X	X	X	X	X	X	X
13	16 SMC-SB-3-10'	7/19	0930	S	8 oz jar	X	X	X	X	X	X	X
14	17 SMC-SB-3-20'	7/19	0945	S	8 oz jar	X	X	X	X	X	X	X
15	18 SMC-SB-3-30'	7/19	1015	S	8 oz jar	X	X	X	X	X		X
16	19 SMC-SB-3-40'	7/19	1030	S	8 oz jar	X	X	X	X	X		X
17	20 EB1-2018-07-19	7/19	1230		VOAs; Poly (NH)							

REQUESTED ANALYSIS

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): STD 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: Yes / No

Type of EDD:

Reciept Temp./ Initials: (Temp recorded is not corrected) 6.5°C MV

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/20/18
TIME: 10:40

RECEIVED BY
Signature: MValenzuela
Print: MValenzuela
Company: PAL
DATE: 7/20/18
TIME: 10:40

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3236

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID

Cooler 1 OF 1

Client Langan

Date Received: 7/20/18

Courier ⊗ CLIENT ○ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	6.5	0.0	6.5	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ⊗ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm	X		

NOTES

Initials	Date	Initials	Date
KW	7/20/18		

Performance Analytical Laboratories, Inc.

ELAP 2960

August 14, 2018

Change Order Report

Langan
32 Executive Park, Suite 130
Irvine, CA 92614-4721

Re: DTSC Riverside
Project No. : Agua Mansa
Work Order: P807019

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/20/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,

Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 7

Qualifiers and Definitions 8

Exceptions List 9

Chain of Custody PDF 10

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807019-01	MAP-SB-2-30'		Solid	07/18/2018	07/20/2018
P807019-02	MAP-SB-2-50'		Solid	07/18/2018	07/20/2018
P807019-06	SMC-SB-2-1'		Solid	07/18/2018	07/20/2018
P807019-08	SMC-SB-2-10'		Solid	07/18/2018	07/20/2018
P807019-09	SMC-SB-2-30'		Solid	07/18/2018	07/20/2018
P807019-10	SMC-SB-1-5'		Solid	07/18/2018	07/20/2018
P807019-11	SMC-SB-1-10'		Solid	07/18/2018	07/20/2018
P807019-12	SMC-SB-1-30'		Solid	07/18/2018	07/20/2018
P807019-13	SMC-SB-3-10'		Solid	07/19/2018	07/20/2018
P807019-14	SMC-SB-3-20'		Solid	07/19/2018	07/20/2018
P807019-15	SMC-SB-3-30'		Solid	07/19/2018	07/20/2018
P807019-16	SMC-SB-3-40		Solid	07/19/2018	07/20/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-SB-2-30' **P807019-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**8.98**	pH Units	1		08/14/2018	EPA 9045	

Sample: MAP-SB-2-50' **P807019-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**9.02**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-SB-2-1' **P807019-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**9.16**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-SB-2-10' **P807019-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**11.0**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-SB-2-30' **P807019-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**10.8**	pH Units	1		08/14/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-1-5' **P807019-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**12.5**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-SB-1-10' **P807019-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**12.2**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-SB-1-30' **P807019-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**12.5**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-SB-3-10' **P807019-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**12.4**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-SB-3-20' **P807019-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**11.5**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SMC-SB-3-30' **P807019-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**7.57**	pH Units	1		08/14/2018	EPA 9045	

Sample: SMC-SB-3-40 **P807019-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**7.67**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

pH by 9045

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8H0017										
Duplicate (B8H0017-DUP1)			**Source: P807019-06**		Prepared: 08/13/2018 Analyzed: 08/14/2018					
pH	8.69			pH Units		9.16			5.27	20

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			No subcontracted Samples found in data set.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 2

PAL WO#: PS07019

Client Name	Langan
Address	515 South Flower St #2860 Los Angeles CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	(909) 771-8217
Project Name/Number	Agua Mansa / 721013501
P.O. Number	721013501
Sampled By	Connor Ridge

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH 8015M	metals CAM 6010/7000	VOCs 8260B	SVOCs/PAHs 8270C	CrVI 7199	PAHs 8270C SIM	Dioxins 1613	PCBs 8082
1	MAP-SB-2-30'	7/18	0850	S	VOAs; 8oz jar	X	X	X	X				
2	MAP-SB-2-50'	7/18	0915	S	VOAs; 8oz jar	X	X	X	X				
3	TB4-2018-07-18	7/18	0800	W	VOAs								
4	~~MAP-SB-1-1'~~	~~7/18~~	~~1005~~	~~S~~	~~8oz jar~~		~~X~~		~~X~~	~~X~~	~~CR 07-18-18~~		
5	~~MAP-SB-1-5'~~	~~7/18~~	~~1010~~	~~S~~	~~VOAs; 8oz jar~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~CR 07-18-18~~		
6	~~MAP-SB-1-10'~~	~~7/18~~		~~S~~	~~8oz jar~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~	~~CR 07-18-18~~		
4	MAP-SB-1-15'	7/18	1025	S	8oz jar	X							
5	MAP-SB-1-20'	7/18	1030	S	VOAs; 8oz jar			X					
6	SMC-SB-2-1'	7/18	1140	S	8oz jar	X	X		X	X	X		X
7	SMC-SB-2-5'	7/18	1150	S	8oz jar							X	X

G-3247

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	6.5°C MV	

REQUESTED ANALYSIS

RELINQUISHED BY

Signature: Brad A. McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/20/18
TIME: 1040

RECEIVED BY

Signature: M Kasmarek
Print: M Kasmarek
Company: PAL
DATE: 7/20/18
TIME: 1040

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P807019

Client Name	Langan
Address	515 South Flower St #2860 Los Angeles CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	(909) 771-8217
Project Name/Number	Aqua Mansa 721013501
P.O. Number	721013501
Sampled By	Conor Ridge

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Metals 6010/7000	CrVI 7199	SVOCs 8270c	CrVI 7199	PAHs 8270csim	Dioxins 1613	PCBs 8082
8	SMC-SB-2-10'	7/18	1200	S	8 oz jar	X	X	X	X	X	X	X
9	12 SMC-SB-2-30'	7/18	1400	S	8 oz jar	X	X	X	X	X	X	X
10	13 SMC-SB-1-5'	7/18	1445	S	8 oz jar	X	X	X	X	X	X	X
11	14 SMC-SB-1-10'	7/18	1455	S	8 oz jar	X	X	X	X	X	X	X
12	15 SMC-SB-1-30'	7/18	1515	S	8 oz jar	X	X	X	X	X	X	X
13	16 SMC-SB-3-10'	7/19	0930	S	8 oz jar	X	X	X	X	X	X	X
14	17 SMC-SB-3-20'	7/19	0945	S	8 oz jar	X	X	X	X	X	X	X
15	18 SMC-SB-3-30'	7/19	1015	S	8 oz jar	X	X	X	X	X		X
16	19 SMC-SB-3-40'	7/19	1030	S	8 oz jar	X	X	X	X	X		X
17	20 EB1-2018-07-19	7/19	1230		VOAs; Poly (NH)							

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): STD 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: Yes / No

Type of EDD:

Reciept Temp./ Initials: (Temp recorded is not corrected) 6.5°C MV

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/20/18
TIME: 10:40

RECEIVED BY
Signature: MValenzuela
Print: MValenzuela
Company: PAL
DATE: 7/20/18
TIME: 10:40

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3248

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID

Cooler 1 OF 1

Client Langan

Date Received: 7/20/18

Courier ⊗ CLIENT ○ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	6.5	0.0	6.5	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ⊗ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm	X		

NOTES

Initials	Date	Initials	Date
KW	7/20/18		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807019-01	MAP-SB-2-30'		Solid	07/18/2018	07/20/2018
P807019-02	MAP-SB-2-50'		Solid	07/18/2018	07/20/2018
P807019-04	MAP-SB-1-15'		Solid	07/18/2018	07/20/2018
P807019-05	MAP-SB-1-20'		Solid	07/18/2018	07/20/2018
P807019-06	SMC-SB-2-1'		Solid	07/18/2018	07/20/2018
P807019-07	SMC-SB-2-5'		Solid	07/18/2018	07/20/2018
P807019-08	SMC-SB-2-10'		Solid	07/18/2018	07/20/2018
P807019-09	SMC-SB-2-30'		Solid	07/18/2018	07/20/2018
P807019-10	SMC-SB-1-5'		Solid	07/18/2018	07/20/2018
P807019-11	SMC-SB-1-10'		Solid	07/18/2018	07/20/2018
P807019-12	SMC-SB-1-30'		Solid	07/18/2018	07/20/2018
P807019-13	SMC-SB-3-10'		Solid	07/19/2018	07/20/2018
P807019-14	SMC-SB-3-20'		Solid	07/19/2018	07/20/2018
P807019-15	SMC-SB-3-30'		Solid	07/19/2018	07/20/2018
P807019-16	SMC-SB-3-40		Solid	07/19/2018	07/20/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

July 30, 2018

** DRAFT **

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Agua Mansa

Work Order: P807020

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/21/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,

DRAFT REPORT
DATA SUBJECT TO CHANGE

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 19

Qualifiers and Definitions 25

Chain of Custody PDF 26

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807020-02	MAP-LT-3-5'		Solid	07/20/2018	07/21/2018
P807020-03	MAP-LT-3-10'		Solid	07/20/2018	07/21/2018
P807020-04	MAP-LT-3-15'		Solid	07/20/2018	07/21/2018
P807020-05	MAP-LT-3-20'		Solid	07/20/2018	07/21/2018
P807020-07	MAP-LT-1-5'		Solid	07/20/2018	07/21/2018
P807020-08	MAP-LT-1-10'		Solid	07/20/2018	07/21/2018
P807020-09	MAP-LT-1-15'		Solid	07/20/2018	07/21/2018
P807020-13	MAP-LT-2-15'		Solid	07/20/2018	07/21/2018
P807020-15	MAP-LT-5-5'		Solid	07/20/2018	07/21/2018
P807020-16	MAP-LT-5-10'		Solid	07/20/2018	07/21/2018
P807020-17	MAP-LT-5-15'		Solid	07/20/2018	07/21/2018
P807020-26	GCP-LT-7-5'		Solid	07/20/2018	07/21/2018
P807020-27	GCP-LT-7-10'		Solid	07/20/2018	07/21/2018
P807020-28	GCP-LT-7-15'		Solid	07/20/2018	07/21/2018

DRAFT

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-5' **P807020-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	87.2%			60-140	07/26/2018	EPA 8015B (M)	
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020)							
Acetone	**19**	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	43	07/23/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-5' (Continued) **P807020-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
4-Chlorotoluene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	8.6	07/23/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-5' (Continued) **P807020-02 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Naphthalene	ND	µg/Kg	1	8.6	07/23/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	21	07/23/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	6.9	07/23/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.7	07/23/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.6	07/23/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	101%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	93.7%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	110%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	98.3%			60-140	07/23/2018	EPA 8260B/5035	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-10' **P807020-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	84.2%			60-140	07/26/2018	EPA 8015B (M)	
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020)							
Acetone	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	43	07/23/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-10' (Continued) **P807020-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	8.5	07/23/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	8.5	07/23/2018	EPA 8260B/5035	

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-10' (Continued) **P807020-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
Propionitrile	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	21	07/23/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	6.8	07/23/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.7	07/23/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.6	07/23/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	99.2%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	93.2%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	112%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	97.9%			60-140	07/23/2018	EPA 8260B/5035	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-15' **P807020-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	**5.00**	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	90.0%			60-140	07/26/2018	EPA 8015B (M)	

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Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-20' **P807020-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020)							
Acetone	**31**	µg/Kg	1	25	07/23/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	63	07/23/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	25	07/23/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-20' (Continued) **P807020-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
1,2-Dichloropropane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	13	07/23/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	25	07/23/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	13	07/23/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	25	07/23/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	32	07/23/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	10	07/23/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-20' (Continued)

P807020-05 (Solid)

Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Trichloroethene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.5	07/23/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.8	07/23/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	103%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	94.3%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	115%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	99.4%			60-140	07/23/2018	EPA 8260B/5035	

Sample: MAP-LT-1-5'

P807020-07 (Solid)

Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	93.3%			60-140	07/26/2018	EPA 8015B (M)	

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-1-10' **P807020-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	85.4%			60-140	07/26/2018	EPA 8015B (M)	

Sample: MAP-LT-1-15' **P807020-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	82.7%			60-140	07/26/2018	EPA 8015B (M)	

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Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-15' **P807020-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C23-C24	**3.30**	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C25-C27	**4.74**	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C28-C33	**24.0**	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C34-C40	**17.6**	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	94.0%			60-140	07/26/2018	EPA 8015B (M)	

Sample: MAP-LT-5-5' **P807020-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	88.8%			60-140	07/26/2018	EPA 8015B (M)	

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-10' **P807020-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	93.7%			60-140	07/26/2018	EPA 8015B (M)	

Sample: MAP-LT-5-15' **P807020-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	92.2%			60-140	07/26/2018	EPA 8015B (M)	

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-7-5' **P807020-26 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	90.9%			60-140	07/26/2018	EPA 8015B (M)	

Sample: GCP-LT-7-10' **P807020-27 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	103%			60-140	07/27/2018	EPA 8015B (M)	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-7-15' **P807020-28 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	103%			60-140	07/27/2018	EPA 8015B (M)	

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0021										
Blank (B8G0021-BLK1)				Prepared: 07/23/2018 Analyzed: 07/25/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.82			mg/kg	2.00		90.9	60-140		
LCS (B8G0021-BS1)				Prepared: 07/23/2018 Analyzed: 07/25/2018						
Diesel	44.0		2.50	mg/kg	50.0		87.9	70-130		
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.00		97.0	60-140		
LCS Dup (B8G0021-BSD1)				Prepared: 07/23/2018 Analyzed: 07/25/2018						
Diesel	44.0		2.50	mg/kg	50.1		88.0	70-130	0.185	20
Surrogate: n-Octacosane (c28)	1.88			mg/kg	2.00		93.7	60-140		
Batch: B8G0024										
Blank (B8G0024-BLK1)				Prepared: 07/25/2018 Analyzed: 07/27/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.84			mg/kg	2.00		92.2	60-140		

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0024 (Continued)										
LCS (B8G0024-BS1)				Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	43.7		2.50	mg/kg	50.0		87.3	70-130		
Surrogate: n-Octacosane (c28)	1.74			mg/kg	2.00		87.0	60-140		
LCS Dup (B8G0024-BSD1)				Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	46.4		2.50	mg/kg	50.0		92.7	70-130	6.00	20
Surrogate: n-Octacosane (c28)	1.85			mg/kg	2.00		92.4	60-140		
Matrix Spike (B8G0024-MS1)		**Source: P807020-28**		Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	39.7		2.50	mg/kg	50.0	ND	79.5	70-130		
Surrogate: n-Octacosane (c28)	1.81			mg/kg	2.00		90.7	60-140		
Matrix Spike Dup (B8G0024-MSD1)		**Source: P807020-28**		Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	46.3		2.50	mg/kg	50.0	ND	92.5	70-130	15.2	20
Surrogate: n-Octacosane (c28)	1.89			mg/kg	2.00		94.7	60-140		

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020										
Blank (B8G0020-BLK1)					Prepared & Analyzed: 07/23/2018					
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020 (Continued)										
Blank (B8G0020-BLK1)				Prepared & Analyzed: 07/23/2018						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		8.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	49			µg/Kg	50.0		97.8	60-140		
Surrogate: 4-Bromofluorobenzene	47			µg/Kg	50.0		93.9	60-140		
Surrogate: 1,2-Dichloroethane-d4	53			µg/Kg	50.0		105	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		97.9	60-140		

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020 (Continued)										
LCS (B8G0020-BS1)				Prepared & Analyzed: 07/23/2018						
Benzene	50		1.0	µg/Kg	50.0		99.6	70-130		
Bromobenzene	50		1.0	µg/Kg	50.0		99.0	70-130		
Bromodichloromethane	50		1.0	µg/Kg	50.0		99.3	70-130		
Bromoform	47		1.0	µg/Kg	50.0		94.9	70-130		
Chlorobenzene	48		1.0	µg/Kg	50.0		95.9	70-130		
Chloroethane	48		5.0	µg/Kg	50.0		96.0	70-130		
Chloroform	48		1.0	µg/Kg	50.0		96.0	70-130		
4-Chlorotoluene	50		1.0	µg/Kg	50.0		100	70-130		
Dibromomethane	49		1.0	µg/Kg	50.0		97.5	70-130		
1,2-Dichlorobenzene	49		1.0	µg/Kg	50.0		97.5	70-130		
1,1-Dichloroethene	50		1.0	µg/Kg	50.0		99.3	70-130		
1,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.3	70-130		
2,2-Dichloropropane	48		1.0	µg/Kg	50.0		96.9	70-130		
1,1-Dichloropropene	47		1.0	µg/Kg	50.0		94.6	70-130		
Diethyl Ether	48		5.0	µg/Kg	50.0		96.0	70-130		
Diisopropyl Ether (DIPE)	50		1.0	µg/Kg	50.0		99.3	70-130		
Ethylbenzene	51		1.0	µg/Kg	50.0		101	70-130		
Hexachloro-1,3-Butadiene	44		1.0	µg/Kg	50.0		88.2	70-130		
Methylene Chloride	55		10	µg/Kg	50.0		109	70-130		
Methyl-t-Butyl Ether (MTBE)	48		1.0	µg/Kg	50.0		96.6	70-130		
Naphthalene	47		10	µg/Kg	50.0		93.9	70-130		
Styrene	52		1.0	µg/Kg	50.0		104	70-130		
tert-Butylbenzene	47		1.0	µg/Kg	50.0		93.7	70-130		
Tetrachloroethene	47		1.0	µg/Kg	50.0		93.8	70-130		
Toluene	50		1.0	µg/Kg	50.0		100	70-130		
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		98.3	70-130		
Trichloroethene	48		1.0	µg/Kg	50.0		96.8	70-130		
1,3,5-Trimethylbenzene	52		1.0	µg/Kg	50.0		103	70-130		
Vinyl Chloride	45		1.0	µg/Kg	50.0		90.6	70-130		
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		99.7	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		99.7	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		100	60-140		

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Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020 (Continued)										
LCS Dup (B8G0020-BSD1)				Prepared & Analyzed: 07/23/2018						
Benzene	47		1.0	µg/Kg	50.0		94.5	70-130	5.28	20
Bromobenzene	49		1.0	µg/Kg	50.0		98.0	70-130	0.995	20
Bromodichloromethane	50		1.0	µg/Kg	50.0		99.4	70-130	0.0805	20
Bromoform	47		1.0	µg/Kg	50.0		94.7	70-130	0.232	20
Chlorobenzene	47		1.0	µg/Kg	50.0		93.7	70-130	2.28	20
Chloroethane	49		5.0	µg/Kg	50.0		98.3	70-130	2.35	20
Chloroform	48		1.0	µg/Kg	50.0		95.1	70-130	0.942	20
4-Chlorotoluene	49		1.0	µg/Kg	50.0		98.0	70-130	2.20	20
Dibromomethane	49		1.0	µg/Kg	50.0		98.1	70-130	0.634	20
1,2-Dichlorobenzene	48		1.0	µg/Kg	50.0		95.7	70-130	1.86	20
1,1-Dichloroethene	47		1.0	µg/Kg	50.0		94.4	70-130	5.10	20
1,2-Dichloropropane	48		1.0	µg/Kg	50.0		96.1	70-130	3.28	20
2,2-Dichloropropane	46		1.0	µg/Kg	50.0		92.6	70-130	4.54	20
1,1-Dichloropropene	44		1.0	µg/Kg	50.0		88.7	70-130	6.44	20
Diethyl Ether	48		5.0	µg/Kg	50.0		95.6	70-130	0.459	20
Diisopropyl Ether (DIPE)	48		1.0	µg/Kg	50.0		96.8	70-130	2.57	20
Ethylbenzene	48		1.0	µg/Kg	50.0		95.7	70-130	5.59	20
Hexachloro-1,3-Butadiene	44		1.0	µg/Kg	50.0		87.6	70-130	0.683	20
Methylene Chloride	53		10	µg/Kg	50.0		106	70-130	3.23	20
Methyl-t-Butyl Ether (MTBE)	48		1.0	µg/Kg	50.0		96.2	70-130	0.373	20
Naphthalene	47		10	µg/Kg	50.0		93.0	70-130	0.984	20
Styrene	51		1.0	µg/Kg	50.0		102	70-130	1.61	20
tert-Butylbenzene	46		1.0	µg/Kg	50.0		91.5	70-130	2.42	20
Tetrachloroethene	45		1.0	µg/Kg	50.0		89.4	70-130	4.80	20
Toluene	49		1.0	µg/Kg	50.0		97.5	70-130	3.01	20
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		97.6	70-130	0.653	20
Trichloroethene	46		1.0	µg/Kg	50.0		92.9	70-130	4.18	20
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		98.0	70-130	5.23	20
Vinyl Chloride	46		1.0	µg/Kg	50.0		92.3	70-130	1.82	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		100	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.2	60-140		

DRAFT

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

DRAFT

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 3

PAL WO#: P807020

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	907-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo / Klara Perkins

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH ext w/ silica gel 8015	CrVI 7199	Title 22 Metals 6010/7000s	VOCs 8260B	SVOCs and PAHs 8270C SIM	Dioxins 1613	PCBs 8082	Pesticides 8081
1	MAP-LT-3-1'	7/20	0820	S	2/8oz. jars		X	X					
2	MAP-LT-3-5'	7/20	0825	S	2/8oz.jar; VOAs	X	X	X	X				
3	MAP-LT-3-10'	7/20	0830	S	2/8oz.jar; VOAs	X	X	X	X				
4	MAP-LT-3-15'	7/20	0835	S	1/8oz.jar	X							
5	MAP-LT-3-20'	7/20	0845	S	VOAs				X				
6	MAP-LT-1-1'	7/20	0915	S	2/8oz.jar		X					X	
7	MAP-LT-1-5'	7/20	0925	S	2/8oz.jar	X	X					X	
8	MAP-LT-1-10'	7/20	0930	S	2/8oz.jar	X	X						
9	MAP-LT-1-15'	7/20	0935	S	1/8oz.jar	X							
10	MAP-LT-2-1'	7/20	1025	S	2/8oz.jar		X	X		X			

G-3276

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): STD 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: Yes / No

Type of EDD:

Reciept Temp./ Initials: (Temp recorded is not corrected) 6.2°C MV

RELINQUISHED BY
Signature: [signature]
Print: Brad A. McCardell
Company: Langan
DATE: 7/21/18
TIME: 0923

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/21/18
TIME: 923

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

mance Analytical Laboratories, Inc.
2 East Willow Street, Signal Hill, CA 90755
0-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P807020

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo / Klara Perkins

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH Carbon chain 8015	Cr VI 7199	Title 22 Metals 6010/7000	VOCs 8260B	SVOCs and PAHs 8270C SIM	Dioxins 1613	PCBs 8082
1	MAP-LT-2-5'	7/20	1027	S	2/ 8oz jars		X	X		X		
2	MAP-LT-2-10'	7/20	1030	S	2/ 8oz. jars		X	X		X		
3	MAP-LT-2-15'	7/20	1040	S	1/ 8oz. jars	X						
4	MSA-LT-5-1'	7/20	1335	S	2/ 8oz. jars		X	X		X		
5	MSA-LT-5-5'	7/20	1340	S	2/ 8oz. jars	X	X	X		X		
6	MSA-LT-5-10'	7/20	1347	S	2/ 8oz jars	X	X	X		X		
7	MSA-LT-5-15'	7/20	1355	S	2/ 8oz. jars	X						
8	GCP-LT-1-1'	7/20	1300	S	2/ 8oz jars		X	X				
9	GCP-LT-8-1'	7/20	1435	S	2/ 8oz jars		X	X			X	
10	GCP-LT-8-5'	7/20	1440	S	2/ 8oz jars		X	X			X	

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	(STD) 5 day	RUSH 24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY
Signature: [signature]
Print: Brad A. McCardell
Company: Langan
DATE: 7/21/18
TIME: 0823

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: POC
DATE: 7/21/18
TIME: 923

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-3277

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 3 of 3

PAL WO#: P807020

Client Name	Langan
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo / Klara Perkins

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	CrVI 7199	Title 22 Metals 6010/7000	8270C SVOCs w/ PAHs SIM	Dioxins 1613	PCBs 8082
1	GCP-LT-8-10'	7/20	1442	S	2/ 8oz. jars		X	X		X	
2	GCP-LT-9-1'	7/20	1502	S	2/ 8oz jars		X	X		X	
3	GCP-LT-9-5'	7/20	1507	S	2/ 8oz. jar		X	X		X	
4	GCP-LT-9-10'	7/20	1510	S	2/ 8oz. jar		X	X		X	
5	GCP-LT-7-1'	7/20	1540	S	2/ 8oz. jars		X	X		X	X
6	GCP-LT-7-5'	7/20	1545	S	2/ 8oz jars	X	X	X		X	X
7	GCP-LT-7-10'	7/20	1550	S	2/ 8 oz jars	X	X	X		X	
8	GCP-LT-7-15'	7/20	1555	S	1/ 8 oz jar	X					
9											
10											

REQUESTED ANALYSIS

G-3278

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD 5 day	RUSH 24	48	72
EDD Required - Circle one:	Yes	No		
Type of EDD:				
Reciept Temp./ Initials: (Temp recorded is not corrected)				

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/21/18
TIME: 0923

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 7/21/18
TIME: 923

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807020

Cooler 1 OF 1

Client Langan

Date Received: 7/20/18

Courier (X) CLIENT ( ) PALI ( ) OTHER _____ ( ) FEDEX ( ) UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	( ) Blank (X) Sample	6.2	0.0	6.2	TM-12

(X) WET ICE ( ) BLUE ICE ( ) AMBIENT ( ) OTHER _____

( ) Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ( ) Present and Intact ( ) Present and **NOT** Intact ( ) Seals signed and dated (X) Not Present

Sample Seal ( ) Present and Intact ( ) Present and **NOT** Intact ( ) Seals signed and dated (X) Not Present

CLIENT COC

(X) INCLUDED ( ) NOT INCLUDED (X) Complete ( ) Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

(X) SOLID ( ) LIQUID ( ) AIR ( ) OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MV	7/20/18		

Performance Analytical Laboratories, Inc.

ELAP 2960

August 02, 2018

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Agua Mansa

Work Order: P807020

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/21/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 61

Qualifiers and Definitions 85

Chain of Custody PDFs 86

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807020-01	MAP-LT-3-1'		Solid	07/20/2018	07/21/2018
P807020-02	MAP-LT-3-5'		Solid	07/20/2018	07/21/2018
P807020-03	MAP-LT-3-10'		Solid	07/20/2018	07/21/2018
P807020-04	MAP-LT-3-15'		Solid	07/20/2018	07/21/2018
P807020-05	MAP-LT-3-20'		Solid	07/20/2018	07/21/2018
P807020-06	MAP-LT-1-1'		Solid	07/20/2018	07/21/2018
P807020-07	MAP-LT-1-5'		Solid	07/20/2018	07/21/2018
P807020-08	MAP-LT-1-10'		Solid	07/20/2018	07/21/2018
P807020-09	MAP-LT-1-15'		Solid	07/20/2018	07/21/2018
P807020-10	MAP-LT-2-1'		Solid	07/20/2018	07/21/2018
P807020-11	MAP-LT-2-5'		Solid	07/20/2018	07/21/2018
P807020-12	MAP-LT-2-10'		Solid	07/20/2018	07/21/2018
P807020-13	MAP-LT-2-15'		Solid	07/20/2018	07/21/2018
P807020-14	MAP-LT-5-1'		Solid	07/20/2018	07/21/2018
P807020-15	MAP-LT-5-5'		Solid	07/20/2018	07/21/2018
P807020-16	MAP-LT-5-10'		Solid	07/20/2018	07/21/2018
P807020-17	MAP-LT-5-15'		Solid	07/20/2018	07/21/2018
P807020-18	GCP-LT-1-1'		Solid	07/20/2018	07/21/2018
P807020-19	GCP-LT-8-1'		Solid	07/20/2018	07/21/2018
P807020-20	GCP-LT-8-5'		Solid	07/20/2018	07/21/2018
P807020-21	GCP-LT-8-10'		Solid	07/20/2018	07/21/2018
P807020-22	GCP-LT-9-1'		Solid	07/20/2018	07/21/2018
P807020-23	GCP-LT-9-5'		Solid	07/20/2018	07/21/2018
P807020-24	GCP-LT-9-10'		Solid	07/20/2018	07/21/2018
P807020-25	GCP-LT-7-1'		Solid	07/20/2018	07/21/2018
P807020-26	GCP-LT-7-5'		Solid	07/20/2018	07/21/2018
P807020-27	GCP-LT-7-10'		Solid	07/20/2018	07/21/2018
P807020-28	GCP-LT-7-15'		Solid	07/20/2018	07/21/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-1' **P807020-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**13.4**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**7.46**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**60.1**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**20.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**10.3**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**25.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**7.99**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**14.8**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**38.1**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**52.5**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193767)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-5' **P807020-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**4.93**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**21.3**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**9.05**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**5.50**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**10.1**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**4.66**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**6.88**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**22.2**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**30.3**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	87.2%			60-140	07/26/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-5' (Continued) **P807020-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193796) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193767)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020)							
Acetone	**19**	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	43	07/23/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-5' (Continued) **P807020-02 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	8.6	07/23/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	8.6	07/23/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	21	07/23/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-5' (Continued) **P807020-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
Tetrachloroethene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	6.9	07/23/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.86	07/23/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.7	07/23/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.6	07/23/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	101%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	93.7%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	110%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	98.3%			60-140	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-10' **P807020-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**4.25**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**3.54**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**26.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**11.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**6.41**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**12.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**5.08**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**7.91**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**21.9**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**36.2**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	84.2%			60-140	07/26/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-10' (Continued) **P807020-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193796) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193767)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020)							
Acetone	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	43	07/23/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-10' (Continued) **P807020-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.3	07/23/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	8.5	07/23/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	8.5	07/23/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	17	07/23/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	21	07/23/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-10' (Continued) **P807020-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
Tetrachloroethene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	6.8	07/23/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.85	07/23/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.7	07/23/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.6	07/23/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	99.2%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	93.2%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	112%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	97.9%			60-140	07/23/2018	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-15' **P807020-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	**5.00**	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	90.0%			60-140	07/26/2018	EPA 8015B (M)	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-20' **P807020-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020)							
Acetone	**31**	µg/Kg	1	25	07/23/2018	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	63	07/23/2018	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	25	07/23/2018	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-20' (Continued) **P807020-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
1,2-Dichloropropane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	6.3	07/23/2018	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	13	07/23/2018	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	25	07/23/2018	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	13	07/23/2018	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	25	07/23/2018	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	32	07/23/2018	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	10	07/23/2018	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-20' (Continued) **P807020-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B8G0020) (Continued)							
Trichloroethene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.3	07/23/2018	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.5	07/23/2018	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.8	07/23/2018	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	103%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	94.3%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	115%			60-140	07/23/2018	EPA 8260B/5035	
Surrogate: Toluene-d8	99.4%			60-140	07/23/2018	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-1-1' **P807020-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Organochlorine Pesticides_Subcontract (Batch ID: QC1193843)							
4,4'-DDD	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
4,4'-DDE	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
4,4'-DDT	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
a-BHC	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Aldrin	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
b-BHC	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Chlordane (technical)	ND	ug/Kg	1	50	07/30/2018	EPA 8081A	D2
d-BHC	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Dieldrin	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Endosulfan I	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Endosulfan II	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Endosulfan sulfate	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Endrin	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Endrin aldehyde	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Endrin Ketone	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Heptachlor	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Heptachlor epoxide	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Lindane (Gamma-BHC)	ND	ug/Kg	1	5	07/30/2018	EPA 8081A	D2
Methoxychlor	ND	ug/Kg	1	10	07/30/2018	EPA 8081A	D2
Toxaphene	ND	ug/Kg	1	100	07/30/2018	EPA 8081A	D2
Surrogate: Decachlorobiphenyl DCB (SUR)	67%			50-150	07/30/2018	EPA 8081A	
Surrogate: Tetrachloro-m-xylene TCMX (SUR)	71%			50-150	07/30/2018	EPA 8081A	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-1-5' **P807020-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	93.3%			60-140	07/26/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Organochlorine Pesticides_Subcontract (Batch ID: QC1193764)							
4,4'-DDD	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
4,4'-DDE	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
4,4'-DDT	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
a-BHC	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
Aldrin	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
b-BHC	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
Chlordane (technical)	ND	ug/Kg	1	50	07/27/2018	EPA 8081A	
d-BHC	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
Dieldrin	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
Endosulfan I	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
Endosulfan II	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
Endosulfan sulfate	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
Endrin	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
Endrin aldehyde	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
Endrin Ketone	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
Heptachlor	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-1-5' (Continued)

P807020-07 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Organochlorine Pesticides_Subcontract (Batch ID: QC1193764) (Continued)							
Heptachlor epoxide	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
Lindane (Gamma-BHC)	ND	ug/Kg	1	5	07/27/2018	EPA 8081A	
Methoxychlor	ND	ug/Kg	1	10	07/27/2018	EPA 8081A	
Toxaphene	ND	ug/Kg	1	100	07/27/2018	EPA 8081A	
Surrogate: Decachlorobiphenyl DCB (SUR)	64%			50-150	07/27/2018	EPA 8081A	
Surrogate: Tetrachloro-m-xylene TCMX (SUR)	58%			50-150	07/27/2018	EPA 8081A	

Sample: MAP-LT-1-10'

P807020-08 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	85.4%			60-140	07/26/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-1-15' **P807020-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	82.7%			60-140	07/26/2018	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-1' **P807020-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**6.02**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**5.95**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**42.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**14.8**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**7.72**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**11.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**5.81**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**10.1**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**29.5**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**38.9**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-1' (Continued) **P807020-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193740) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	46%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	70%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	50%			33-155	07/27/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-1' (Continued) **P807020-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-1' (Continued) **P807020-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	59%			34-143	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	58%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	59%			13-153	07/27/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	55%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	63%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	66%			33-155	07/27/2018	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-5' **P807020-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**6.13**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**2.86**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**23.1**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**9.01**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**5.36**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**8.74**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**5.20**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**5.93**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**5.38**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**21.2**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**26.3**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-5' (Continued) **P807020-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193740) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	5	50	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	52%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	62%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	55%			33-155	07/27/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
1,2-Dichlorobenzene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
1,3-Dichlorobenzene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
1,4-Dichlorobenzene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	L, D2
1-Methylnaphthalene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2,4,5-Trichlorophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2,4,6-Trichlorophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2,4-Dichlorophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2,4-Dimethylphenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2,4-Dinitrophenol	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
2,4-Dinitrotoluene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2,6-Dinitrotoluene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Chloronaphthalene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Chlorophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Methylnaphthalene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Methylphenol (o-Cresol)	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Nitroaniline	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
2-Nitrophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	5	2000	07/27/2018	EPA 8270C	D2
3,3'-Dichlorobenzidine	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-5' (Continued) **P807020-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
3-Nitroaniline	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
4-Bromophenyl phenyl ether	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
4-Chloro-3-methylphenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
4-Chloroaniline	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
4-Chlorophenyl phenyl ether	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
4-Nitroaniline	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
4-Nitrophenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Acenaphthene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Acenaphthylene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Aniline	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Anthracene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Azobenzene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Benz(a)anthracene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Benzidine	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
Benzo(a)pyrene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Benzo(b)fluoranthene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Benzo(g,h,i)perylene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Benzo(k)fluoranthene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Benzoic acid	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
Benzyl alcohol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Bis(2-chloroethoxy)methane	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Bis(2-chloroethyl) Ether	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Butylbenzyl Phthalate	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Carbazole	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Chrysene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Dibenz(a,h)anthracene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Dibenzofuran	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Diethyl phthalate	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Dimethyl phthalate	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Di-n-butyl phthalate	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Di-n-octyl phthalate	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Fluoranthene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Fluorene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Hexachlorobenzene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-5' (Continued) **P807020-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Hexachlorobutadiene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Hexachlorocyclopentadiene	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
Hexachloroethane	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Isophorone	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Naphthalene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Nitrobenzene	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
N-Nitrosodiphenylamine	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Pentachlorophenol	ND	ug/Kg	5	6000	07/27/2018	EPA 8270C	D2
Phenanthrene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Phenol	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Pyrene	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Pyridine	ND	ug/Kg	5	1250	07/27/2018	EPA 8270C	D2
Total Cresol	ND	ug/Kg	5	2000	07/27/2018	EPA 8270C	D2
Surrogate: 2,4,6-Tribromophenol (SUR)	56%			34-143	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	57%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	50%			13-153	07/27/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	48%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	54%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	62%			33-155	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-10' **P807020-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**4.22**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**8.84**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**36.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**15.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**7.70**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**11.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**6.81**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**10.5**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**7.12**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**28.9**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**35.7**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	**15**	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	**13**	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-10' (Continued) **P807020-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193740) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	**24**	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	**31**	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	**24**	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	47%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	69%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	48%			33-155	07/27/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-10' (Continued) **P807020-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-10' (Continued) **P807020-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	6%			34-143	07/27/2018	EPA 8270C	S
Surrogate: 2-Fluorobiphenyl (SUR)	52%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	45%			13-153	07/27/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	50%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	58%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	56%			33-155	07/27/2018	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-15' **P807020-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C23-C24	**3.30**	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C25-C27	**4.74**	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C28-C33	**24.0**	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C34-C40	**17.6**	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	94.0%			60-140	07/26/2018	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-1' **P807020-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**6.03**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**3.83**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**48.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	**0.53**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**13.1**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**6.01**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**8.30**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**22.3**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**8.93**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**3.41**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**24.4**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**39.2**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-1' (Continued) **P807020-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH (SIM)_Subcontract (Batch ID: QC1193740) (Continued)							
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	44%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	70%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	45%			33-155	07/27/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-1' (Continued) **P807020-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-1' (Continued) **P807020-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	45%			34-143	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	62%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	62%			13-153	07/27/2018	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	60%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	71%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	71%			33-155	07/27/2018	EPA 8270C	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-5' **P807020-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**11.4**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**2.79**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**52.8**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**19.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**9.18**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**13.3**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**7.66**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**12.7**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**32.0**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**35.9**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	88.8%			60-140	07/26/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-5' (Continued) **P807020-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193796) (Continued)							
Hexavalent Chromium	**407**	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	48%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	79%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	53%			33-155	07/27/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-5' (Continued) **P807020-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-5' (Continued) **P807020-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	69%			34-143	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	65%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	75%			13-153	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-5' (Continued) **P807020-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Surrogate: Nitrobenzene-d5 (SUR)	68%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	78%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	78%			33-155	07/27/2018	EPA 8270C	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-10' **P807020-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**5.64**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**3.12**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**51.1**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**17.3**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**8.12**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**13.3**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**4.74**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**13.8**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**5.29**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**29.6**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**33.5**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.51	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	93.7%			60-140	07/26/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-10' (Continued) **P807020-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193796) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
PAH (SIM)_Subcontract (Batch ID: QC1193740)							
1-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	07/27/2018	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	48%			30-120	07/27/2018	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	77%			27-125	07/27/2018	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	54%			33-155	07/27/2018	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	L
1-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-10' (Continued) **P807020-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Aniline	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-10' (Continued) **P807020-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	07/27/2018	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Phenol	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	07/27/2018	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	07/27/2018	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	67%			34-143	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	65%			41-125	07/27/2018	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	69%			13-153	07/27/2018	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-5-10' (Continued) **P807020-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1193739) (Continued)							
Surrogate: Nitrobenzene-d5 (SUR)	66%			27-125	07/27/2018	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	75%			10-110	07/27/2018	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	76%			33-155	07/27/2018	EPA 8270C	

Sample: MAP-LT-5-15' **P807020-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	92.2%			60-140	07/26/2018	EPA 8015B (M)	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-1-1' **P807020-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**6.12**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**51.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**13.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**6.16**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**96.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**18.1**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**8.47**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**7.68**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**26.8**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**36.4**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	**622**	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-8-1' **P807020-19 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**5.49**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**4.06**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**44.1**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**13.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**6.46**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**10.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**4.35**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**9.30**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**6.57**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**27.9**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**30.4**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-8-5' **P807020-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**3.59**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**5.03**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**54.8**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**16.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**7.10**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**12.2**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**12.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**10.6**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**7.16**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**31.2**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**34.5**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-8-10' **P807020-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**3.38**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**1.50**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**22.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**7.92**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**3.48**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**6.87**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**2.21**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**5.98**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**3.70**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**16.1**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**15.8**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-9-1' **P807020-22 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**4.30**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**8.14**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**73.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**23.9**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**11.3**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**18.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**8.35**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**17.8**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**42.7**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**53.4**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-9-5' **P807020-23 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193741)							
Antimony	**6.09**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	**3.65**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**65.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**24.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**9.43**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**17.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**18.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**17.6**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**6.75**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**35.1**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**41.8**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	**492**	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-9-10' **P807020-24 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	**3.13**	mg/Kg	1	3	07/27/2018	EPA 6010B	
Arsenic	**5.17**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**62.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**26.9**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**10.4**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**18.9**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**16.7**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	**1.04**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**19.6**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**4.62**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**37.0**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**44.9**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193796)							
Hexavalent Chromium	**835**	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-7-1' **P807020-25 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	ND	mg/Kg	1	3	07/27/2018	EPA 6010B	
Arsenic	**5.01**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**33.4**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**13.6**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**6.48**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**8.65**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**2.70**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**9.22**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	**3.19**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**28.4**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**24.2**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/25/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-7-1' (Continued) **P807020-25 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639) (Continued)							
Surrogate: Decachlorobiphenyl DCB (SUR)	95%			50-150	07/25/2018	EPA 8082	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-7-5' **P807020-26 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	ND	mg/Kg	1	3	07/27/2018	EPA 6010B	
Arsenic	**3.92**	mg/Kg	1	1	07/27/2018	EPA 6010B	
Barium	**41.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**15.0**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**7.99**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**12.1**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**7.11**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**11.1**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	**3.41**	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**30.1**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**30.0**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0021)							
C7-C8	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.52	07/26/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	90.9%			60-140	07/26/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-7-5' (Continued) **P807020-26 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193827) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193639)							
PCB-1016	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/25/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	51%			50-150	07/25/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-7-10' **P807020-27 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193742)							
Antimony	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Arsenic	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Barium	**25.5**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Chromium	**8.61**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Cobalt	**4.13**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Copper	**8.60**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Lead	**3.18**	mg/Kg	1	1	07/26/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/26/2018	EPA 6010B	
Nickel	**6.96**	mg/Kg	1	1.5	07/26/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/26/2018	EPA 6010B	
Vanadium	**16.5**	mg/Kg	1	0.5	07/26/2018	EPA 6010B	
Zinc	**20.2**	mg/Kg	1	5	07/26/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	103%			60-140	07/27/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-7-10' (Continued) **P807020-27 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193827) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/30/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193772)							
Mercury	ND	mg/Kg	1	0.14	07/26/2018	EPA 7471A	

Sample: GCP-LT-7-15' **P807020-28 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	103%			60-140	07/27/2018	EPA 8015B (M)	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193741										
LCS (QC1193741LCS1)		**Source: NA**		Prepared: 07/25/2018 Analyzed: 07/26/2018						
Zinc	115		5	mg/Kg	100	NA	115	80-120		
Vanadium	98.6		0.5	mg/Kg	100	NA	99	80-120		
Copper	102		1	mg/Kg	100	NA	102	80-120		
Antimony	113		3	mg/Kg	100	NA	113	80-120		
Arsenic	97.2		1	mg/Kg	100	NA	97	80-120		
Barium	97.6		1	mg/Kg	100	NA	98	80-120		
Beryllium	96.4		0.5	mg/Kg	100	NA	96	80-120		
Cadmium	102		0.5	mg/Kg	100	NA	102	80-120		
Cobalt	102		0.5	mg/Kg	100	NA	102	80-120		
Lead	99.8		1	mg/Kg	100	NA	100	80-120		
Molybdenum	94.8		1	mg/Kg	100	NA	95	80-120		
Nickel	99.7		1.5	mg/Kg	100	NA	100	80-120		
Selenium	88.3		3	mg/Kg	100	NA	88	80-120		
Silver	90.6		0.5	mg/Kg	100	NA	91	80-120		
Thallium	96.0		3	mg/Kg	100	NA	96	80-120		
Chromium	99.0		1	mg/Kg	100	NA	99	80-120		
Method Blank (QC1193741MB1)		**Source: NA**		Prepared: 07/25/2018 Analyzed: 07/26/2018						
Copper	ND		1	mg/Kg		NA		-		
Vanadium	ND		0.5	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193741 (Continued)										
MS (QC1193741MS1)		**Source: NA**			Prepared: 07/25/2018 Analyzed: 07/26/2018					
Vanadium	128		0.5	mg/Kg	100	31.2	97	75-125		
Copper	114		1	mg/Kg	100	11.2	103	75-125		
Antimony	73.7	M	3	mg/Kg	100	2.72	71	75-125		
Arsenic	96.3		1	mg/Kg	100	8.52	88	75-125		
Barium	135		1	mg/Kg	100	40.4	95	75-125		
Beryllium	93.7		0.5	mg/Kg	100	ND	94	75-125		
Cadmium	93.8		0.5	mg/Kg	100	ND	94	75-125		
Cobalt	105		0.5	mg/Kg	100	8.14	97	75-125		
Lead	101		1	mg/Kg	100	5.39	96	75-125		
Molybdenum	87.6		1	mg/Kg	100	ND	88	75-125		
Nickel	100		1.5	mg/Kg	100	9.05	91	75-125		
Selenium	89.9		3	mg/Kg	100	4.46	85	75-125		
Thallium	89.8		3	mg/Kg	100	3.19	87	75-125		
Zinc	140		5	mg/Kg	100	44.1	96	75-125		
Chromium	110		1	mg/Kg	100	13.9	96	75-125		
Silver	90.2		0.5	mg/Kg	100	ND	90	75-125		
MSD (QC1193741MSD1)		**Source: NA**			Prepared: 07/25/2018 Analyzed: 07/26/2018					
Zinc	142		5	mg/Kg	100	44.1	98	75-125		
Molybdenum	90.6		1	mg/Kg	100	ND	91	75-125		
Beryllium	92.7		0.5	mg/Kg	100	ND	93	75-125		
Cadmium	95.0		0.5	mg/Kg	100	ND	95	75-125		
Chromium	112		1	mg/Kg	100	13.9	98	75-125		
Cobalt	106		0.5	mg/Kg	100	8.14	98	75-125		
Arsenic	104		1	mg/Kg	100	8.52	95	75-125		
Lead	100		1	mg/Kg	100	5.39	95	75-125		
Antimony	73.4	M	3	mg/Kg	100	2.72	71	75-125		
Nickel	103		1.5	mg/Kg	100	9.05	94	75-125		
Selenium	83.8		3	mg/Kg	100	4.46	79	75-125		
Silver	90.8		0.5	mg/Kg	100	ND	91	75-125		
Thallium	90.6		3	mg/Kg	100	3.19	87	75-125		
Vanadium	132		0.5	mg/Kg	100	31.2	101	75-125		
Copper	116		1	mg/Kg	100	11.2	105	75-125		
Barium	138		1	mg/Kg	100	40.4	98	75-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193742										
LCS (QC1193742LCS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Zinc	98.8		5	mg/Kg	100	NA	99	80-120		
Molybdenum	89.5		1	mg/Kg	100	NA	90	80-120		
Barium	94.8		1	mg/Kg	100	NA	95	80-120		
Beryllium	92.2		0.5	mg/Kg	100	NA	92	80-120		
Cadmium	95.7		0.5	mg/Kg	100	NA	96	80-120		
Chromium	94.2		1	mg/Kg	100	NA	94	80-120		
Cobalt	102		0.5	mg/Kg	100	NA	102	80-120		
Lead	92.8		1	mg/Kg	100	NA	93	80-120		
Nickel	93.8		1.5	mg/Kg	100	NA	94	80-120		
Selenium	85.1		3	mg/Kg	100	NA	85	80-120		
Silver	87.6		0.5	mg/Kg	100	NA	88	80-120		
Thallium	91.5		3	mg/Kg	100	NA	92	80-120		
Vanadium	93.9		0.5	mg/Kg	100	NA	94	80-120		
Copper	95.6		1	mg/Kg	100	NA	96	80-120		
Arsenic	92.1		1	mg/Kg	100	NA	92	80-120		
Antimony	103		3	mg/Kg	100	NA	103	80-120		
Method Blank (QC1193742MB1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Vanadium	ND		0.5	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Copper	ND		1	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Antimony	ND		3	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193742 (Continued)										
MS (QC1193742MS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Arsenic	104		1	mg/Kg	100	5.17	99	75-125		
Zinc	142		5	mg/Kg	100	44.9	97	75-125		
Lead	109		1	mg/Kg	100	16.7	92	75-125		
Barium	155		1	mg/Kg	100	62.5	93	75-125		
Beryllium	95.5		0.5	mg/Kg	100	ND	96	75-125		
Cadmium	96.0		0.5	mg/Kg	100	0.35	96	75-125		
Chromium	122		1	mg/Kg	100	26.9	95	75-125		
Copper	124		1	mg/Kg	100	18.9	105	75-125		
Antimony	56.9	M	3	mg/Kg	100	3.13	54	75-125		
Molybdenum	89.2		1	mg/Kg	100	1.04	88	75-125		
Nickel	111		1.5	mg/Kg	100	19.6	91	75-125		
Selenium	96.1		3	mg/Kg	100	4.62	91	75-125		
Silver	92.5		0.5	mg/Kg	100	ND	93	75-125		
Thallium	87.1		3	mg/Kg	100	1.86	85	75-125		
Vanadium	137		0.5	mg/Kg	100	37.0	100	75-125		
Cobalt	106		0.5	mg/Kg	100	10.4	96	75-125		
MSD (QC1193742MSD1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Zinc	139		5	mg/Kg	100	44.9	94	75-125		
Lead	114		1	mg/Kg	100	16.7	97	75-125		
Barium	160		1	mg/Kg	100	62.5	98	75-125		
Beryllium	94.6		0.5	mg/Kg	100	ND	95	75-125		
Cadmium	95.2		0.5	mg/Kg	100	0.35	95	75-125		
Chromium	121		1	mg/Kg	100	26.9	94	75-125		
Antimony	57.4	M	3	mg/Kg	100	3.13	54	75-125		
Copper	124		1	mg/Kg	100	18.9	105	75-125		
Molybdenum	89.2		1	mg/Kg	100	1.04	88	75-125		
Nickel	108		1.5	mg/Kg	100	19.6	88	75-125		
Selenium	94.5		3	mg/Kg	100	4.62	90	75-125		
Silver	93.0		0.5	mg/Kg	100	ND	93	75-125		
Thallium	86.6		3	mg/Kg	100	1.86	85	75-125		
Vanadium	137		0.5	mg/Kg	100	37.0	100	75-125		
Cobalt	104		0.5	mg/Kg	100	10.4	94	75-125		
Arsenic	105		1	mg/Kg	100	5.17	100	75-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0021										
Blank (B8G0021-BLK1)				Prepared: 07/23/2018 Analyzed: 07/25/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.82			mg/kg	2.00		90.9	60-140		
LCS (B8G0021-BS1)				Prepared: 07/23/2018 Analyzed: 07/25/2018						
Diesel	44.0		2.50	mg/kg	50.0		87.9	70-130		
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.00		97.0	60-140		
LCS Dup (B8G0021-BSD1)				Prepared: 07/23/2018 Analyzed: 07/25/2018						
Diesel	44.0		2.50	mg/kg	50.1		88.0	70-130	0.185	20
Surrogate: n-Octacosane (c28)	1.88			mg/kg	2.00		93.7	60-140		
Batch: B8G0024										
Blank (B8G0024-BLK1)				Prepared: 07/25/2018 Analyzed: 07/27/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.84			mg/kg	2.00		92.2	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0024 (Continued)										
LCS (B8G0024-BS1)				Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	43.7		2.50	mg/kg	50.0		87.3	70-130		
Surrogate: n-Octacosane (c28)	1.74			mg/kg	2.00		87.0	60-140		
LCS Dup (B8G0024-BSD1)				Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	46.4		2.50	mg/kg	50.0		92.7	70-130	6.00	20
Surrogate: n-Octacosane (c28)	1.85			mg/kg	2.00		92.4	60-140		
Matrix Spike (B8G0024-MS1)		**Source: P807020-28**		Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	39.7		2.50	mg/kg	50.0	ND	79.5	70-130		
Surrogate: n-Octacosane (c28)	1.81			mg/kg	2.00		90.7	60-140		
Matrix Spike Dup (B8G0024-MSD1)		**Source: P807020-28**		Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	46.3		2.50	mg/kg	50.0	ND	92.5	70-130	15.2	20
Surrogate: n-Octacosane (c28)	1.89			mg/kg	2.00		94.7	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193796										
Duplicate (QC1193796DUP1)		**Source: NA**		Prepared & Analyzed: 07/27/2018						
Hexavalent Chromium	ND		400	ug/Kg	0	ND		-		
LCS (QC1193796LCS1)		**Source: NA**		Prepared & Analyzed: 07/27/2018						
Hexavalent Chromium	37800		400	ug/Kg	40000	NA	95	80-120		
Method Blank (QC1193796MB1)		**Source: NA**		Prepared & Analyzed: 07/27/2018						
Hexavalent Chromium	ND		400	ug/Kg		NA		-		
MS (QC1193796MS1)		**Source: NA**		Prepared & Analyzed: 07/27/2018						
Hexavalent Chromium	43000		400	ug/Kg	40000	ND	108	75-125		
Hexavalent Chromium	43100		400	ug/Kg	40000	ND	108	75-125		
Batch: QC1193827										
Duplicate (QC1193827DUP1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	310		400	ug/Kg	0	309		-		
LCS (QC1193827LCS1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	38200		400	ug/Kg	40000	NA	96	80-120		
Method Blank (QC1193827MB1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	ND		400	ug/Kg		NA		-		
MS (QC1193827MS2)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	41000		400	ug/Kg	40000	309	102	75-125		
Hexavalent Chromium	40700		400	ug/Kg	40000	309	101	75-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193767										
LCS (QC1193767LCS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	0.85		0.14	mg/Kg	0.83	NA	102	80-120		
Method Blank (QC1193767MB1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193767MS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	0.78		0.14	mg/Kg	0.83	ND	94	75-125		
MSD (QC1193767MSD1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	0.80		0.14	mg/Kg	0.83	ND	96	75-125		
Batch: QC1193772										
LCS (QC1193772LCS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	0.88		0.14	mg/Kg	0.83	NA	106	80-120		
Method Blank (QC1193772MB1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193772MS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	0.80		0.14	mg/Kg	0.83	ND	96	75-125		
MSD (QC1193772MSD1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Mercury	0.82		0.14	mg/Kg	0.83	ND	99	75-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Organochlorine Pesticides_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193764										
LCS (QC1193764LCS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Aldrin	35		5	ug/Kg	50	NA	70	46-142		
Endrin Ketone	40		5	ug/Kg	50	NA	80	48-159		
a-BHC	37		5	ug/Kg	50	NA	74	45-150		
4,4'-DDT	50		5	ug/Kg	50	NA	100	40-158		
4,4'-DDE	43		5	ug/Kg	50	NA	86	44-163		
4,4'-DDD	44		5	ug/Kg	50	NA	88	43-172		
b-BHC	39		5	ug/Kg	50	NA	78	42-156		
d-BHC	38		5	ug/Kg	50	NA	76	37-161		
Dieldrin	41		5	ug/Kg	50	NA	82	47-151		
Endosulfan I	37		5	ug/Kg	50	NA	74	47-141		
Endosulfan II	40		5	ug/Kg	50	NA	80	44-156		
Endosulfan sulfate	41		5	ug/Kg	50	NA	82	43-157		
Endrin aldehyde	37		5	ug/Kg	50	NA	74	32-127		
Heptachlor	36		5	ug/Kg	50	NA	72	50-144		
Heptachlor epoxide	36		5	ug/Kg	50	NA	72	48-145		
Lindane (Gamma-BHC)	36		5	ug/Kg	50	NA	72	47-151		
Methoxychlor	66		10	ug/Kg	50	NA	132	36-182		
Endrin	51		5	ug/Kg	50	NA	102	47-160		
Surrogate: Decachlorobiphenyl DCB (SUR)	33.5			ug/Kg	50	NA	67	50-150		
Surrogate: Tetrachloro-m-xylene TCMX (SUR)	35.1			ug/Kg	50	NA	70	50-150		
Method Blank (QC1193764MB1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Dieldrin	ND		5	ug/Kg		NA		-		
Endosulfan I	ND		5	ug/Kg		NA		-		
Endosulfan II	ND		5	ug/Kg		NA		-		
Endosulfan sulfate	ND		5	ug/Kg		NA		-		
Endrin	ND		5	ug/Kg		NA		-		
Endrin aldehyde	ND		5	ug/Kg		NA		-		
Endrin Ketone	ND		5	ug/Kg		NA		-		
Heptachlor	ND		5	ug/Kg		NA		-		
Heptachlor epoxide	ND		5	ug/Kg		NA		-		
Methoxychlor	ND		10	ug/Kg		NA		-		
b-BHC	ND		5	ug/Kg		NA		-		
Toxaphene	ND		100	ug/Kg		NA		-		
Lindane (Gamma-BHC)	ND		5	ug/Kg		NA		-		
d-BHC	ND		5	ug/Kg		NA		-		
Chlordane (technical)	ND		50	ug/Kg		NA		-		
4,4'-DDD	ND		5	ug/Kg		NA		-		
4,4'-DDE	ND		5	ug/Kg		NA		-		
4,4'-DDT	ND		5	ug/Kg		NA		-		
a-BHC	ND		5	ug/Kg		NA		-		
Aldrin	ND		5	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Organochlorine Pesticides_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193764 (Continued)										
Method Blank (QC1193764MB1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Surrogate: Tetrachloro-m-xylene TCMX (SUR)	32.2			ug/Kg	50	NA	64	50-150		
Surrogate: Decachlorobiphenyl DCB (SUR)	34.1			ug/Kg	50	NA	68	50-150		
MS (QC1193764MS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Endrin	40		5	ug/Kg	50	ND	80	47-160		
4,4'-DDT	100	M	5	ug/Kg	50	85	30	40-158		
Endrin Ketone	44		5	ug/Kg	50	ND	88	48-159		
Endosulfan sulfate	35		5	ug/Kg	50	ND	70	43-157		
Endosulfan II	53		5	ug/Kg	50	ND	106	44-156		
Endrin aldehyde	85	M	5	ug/Kg	50	ND	170	32-127		
4,4'-DDE	350	NC	5	ug/Kg	50	460	0	44-163		
Lindane (Gamma-BHC)	34		5	ug/Kg	50	ND	68	47-151		
a-BHC	36		5	ug/Kg	50	ND	72	45-150		
Aldrin	32		5	ug/Kg	50	ND	64	46-142		
b-BHC	37		5	ug/Kg	50	ND	74	42-156		
d-BHC	37		5	ug/Kg	50	ND	74	37-161		
Dieldrin	130	M	5	ug/Kg	50	140	0	47-151		
4,4'-DDD	48		5	ug/Kg	50	ND	96	43-172		
Heptachlor	34		5	ug/Kg	50	ND	68	50-144		
Heptachlor epoxide	39		5	ug/Kg	50	9.1	60	48-145		
Methoxychlor	110		10	ug/Kg	50	32	156	36-182		
Endosulfan I	34		5	ug/Kg	50	ND	68	47-141		
Surrogate: Decachlorobiphenyl DCB (SUR)	32.4			ug/Kg	50	NA	65	50-150		
Surrogate: Tetrachloro-m-xylene TCMX (SUR)	32.7			ug/Kg	50	NA	65	50-150		
MSD (QC1193764MSD1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
Endrin Ketone	42		5	ug/Kg	50	ND	84	48-159		
Methoxychlor	100		10	ug/Kg	50	32	136	36-182		
Lindane (Gamma-BHC)	33		5	ug/Kg	50	ND	66	47-151		
Heptachlor	33		5	ug/Kg	50	ND	66	50-144		
Heptachlor epoxide	38		5	ug/Kg	50	9.1	58	48-145		
Endrin aldehyde	86	M	5	ug/Kg	50	ND	172	32-127		
Aldrin	31		5	ug/Kg	50	ND	62	46-142		
Endosulfan sulfate	39		5	ug/Kg	50	ND	78	43-157		
Endosulfan II	53		5	ug/Kg	50	ND	106	44-156		
Endosulfan I	34		5	ug/Kg	50	ND	68	47-141		
Dieldrin	140	M	5	ug/Kg	50	140	0	47-151		
b-BHC	36		5	ug/Kg	50	ND	72	42-156		
a-BHC	35		5	ug/Kg	50	ND	70	45-150		
4,4'-DDT	100	M	5	ug/Kg	50	85	30	40-158		
4,4'-DDE	360	NC	5	ug/Kg	50	460	0	44-163		
4,4'-DDD	45		5	ug/Kg	50	ND	90	43-172		
Endrin	38		5	ug/Kg	50	ND	76	47-160		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Organochlorine Pesticides_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193764 (Continued)										
MSD (QC1193764MSD1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
d-BHC	36		5	ug/Kg	50	ND	72	37-161		
Surrogate: Tetrachloro-m-xylene TCMX (SUR)	31.8			ug/Kg	50	NA	64	50-150		
Surrogate: Decachlorobiphenyl DCB (SUR)	29.8			ug/Kg	50	NA	60	50-150		
Batch: QC1193843										
LCS (QC1193843LCS1)		**Source: NA**		Prepared & Analyzed: 07/30/2018						
Endosulfan II	34		5	ug/Kg	50	NA	68	44-156		
4,4'-DDD	36		5	ug/Kg	50	NA	72	43-172		
4,4'-DDE	36		5	ug/Kg	50	NA	72	44-163		
4,4'-DDT	38		5	ug/Kg	50	NA	76	40-158		
a-BHC	31		5	ug/Kg	50	NA	62	45-150		
Aldrin	32		5	ug/Kg	50	NA	64	46-142		
b-BHC	34		5	ug/Kg	50	NA	68	42-156		
d-BHC	32		5	ug/Kg	50	NA	64	37-161		
Dieldrin	33		5	ug/Kg	50	NA	66	47-151		
Endosulfan sulfate	33		5	ug/Kg	50	NA	66	43-157		
Endosulfan I	32		5	ug/Kg	50	NA	64	47-141		
Endrin	43		5	ug/Kg	50	NA	86	47-160		
Endrin aldehyde	28		5	ug/Kg	50	NA	56	32-127		
Endrin Ketone	32		5	ug/Kg	50	NA	64	48-159		
Heptachlor	31		5	ug/Kg	50	NA	62	50-144		
Heptachlor epoxide	31		5	ug/Kg	50	NA	62	48-145		
Lindane (Gamma-BHC)	30		5	ug/Kg	50	NA	60	47-151		
Methoxychlor	52		10	ug/Kg	50	NA	104	36-182		
Surrogate: Decachlorobiphenyl DCB (SUR)	30.2			ug/Kg	50	NA	60	50-150		
Surrogate: Tetrachloro-m-xylene TCMX (SUR)	32.3			ug/Kg	50	NA	65	50-150		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Organochlorine Pesticides_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193843 (Continued)										
Method Blank (QC1193843MB1)		**Source: NA**		Prepared & Analyzed: 07/30/2018						
Methoxychlor	ND		10	ug/Kg		NA		-		
Toxaphene	ND		100	ug/Kg		NA		-		
Heptachlor epoxide	ND		5	ug/Kg		NA		-		
Heptachlor	ND		5	ug/Kg		NA		-		
Aldrin	ND		5	ug/Kg		NA		-		
4,4'-DDD	ND		5	ug/Kg		NA		-		
4,4'-DDE	ND		5	ug/Kg		NA		-		
Lindane (Gamma-BHC)	ND		5	ug/Kg		NA		-		
a-BHC	ND		5	ug/Kg		NA		-		
b-BHC	ND		5	ug/Kg		NA		-		
Chlordane (technical)	ND		50	ug/Kg		NA		-		
d-BHC	ND		5	ug/Kg		NA		-		
Dieldrin	ND		5	ug/Kg		NA		-		
Endosulfan I	ND		5	ug/Kg		NA		-		
Endosulfan II	ND		5	ug/Kg		NA		-		
Endosulfan sulfate	ND		5	ug/Kg		NA		-		
Endrin	ND		5	ug/Kg		NA		-		
Endrin aldehyde	ND		5	ug/Kg		NA		-		
Endrin Ketone	ND		5	ug/Kg		NA		-		
4,4'-DDT	ND		5	ug/Kg		NA		-		
Surrogate: Tetrachloro-m-xylene TCMX (SUR)	34.5			ug/Kg	50	NA	69	50-150		
Surrogate: Decachlorobiphenyl DCB (SUR)	32.5			ug/Kg	50	NA	65	50-150		
MS (QC1193843MS1)		**Source: NA**		Prepared & Analyzed: 07/30/2018						
Heptachlor epoxide	46		5	ug/Kg	50	ND	92	48-145		
Methoxychlor	64		10	ug/Kg	50	ND	128	36-182		
Dieldrin	54		5	ug/Kg	50	ND	108	47-151		
4,4'-DDD	59		5	ug/Kg	50	ND	118	43-172		
4,4'-DDE	59		5	ug/Kg	50	ND	118	44-163		
4,4'-DDT	50		5	ug/Kg	50	ND	100	40-158		
a-BHC	49		5	ug/Kg	50	ND	98	45-150		
Aldrin	52		5	ug/Kg	50	ND	104	46-142		
b-BHC	51		5	ug/Kg	50	ND	102	42-156		
Endosulfan I	48		5	ug/Kg	50	ND	96	47-141		
Endosulfan II	53		5	ug/Kg	50	ND	106	44-156		
Endosulfan sulfate	52		5	ug/Kg	50	ND	104	43-157		
Endrin	67		5	ug/Kg	50	ND	134	47-160		
Endrin aldehyde	46		5	ug/Kg	50	ND	92	32-127		
Endrin Ketone	49		5	ug/Kg	50	ND	98	48-159		
Heptachlor	47		5	ug/Kg	50	ND	94	50-144		
Lindane (Gamma-BHC)	46		5	ug/Kg	50	ND	92	47-151		
d-BHC	51		5	ug/Kg	50	ND	102	37-161		
Surrogate: Decachlorobiphenyl DCB (SUR)	46.3			ug/Kg	50	NA	93	50-150		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Organochlorine Pesticides_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193843 (Continued)										
MS (QC1193843MS1)		**Source: NA**		Prepared & Analyzed: 07/30/2018						
Surrogate: Tetrachloro-m-xylene TCMX (SUR)	51			ug/Kg	50	NA	102	50-150		
MSD (QC1193843MSD1)		**Source: NA**		Prepared & Analyzed: 07/30/2018						
a-BHC	50		5	ug/Kg	50	ND	100	45-150		
Dieldrin	58		5	ug/Kg	50	ND	116	47-151		
Endrin	69		5	ug/Kg	50	ND	138	47-160		
Endosulfan sulfate	52		5	ug/Kg	50	ND	104	43-157		
Endosulfan II	54		5	ug/Kg	50	ND	108	44-156		
Endosulfan I	51		5	ug/Kg	50	ND	102	47-141		
d-BHC	52		5	ug/Kg	50	ND	104	37-161		
b-BHC	52		5	ug/Kg	50	ND	104	42-156		
Methoxychlor	110	M	10	ug/Kg	50	ND	220	36-182		
Endrin aldehyde	48		5	ug/Kg	50	ND	96	32-127		
Endrin Ketone	48		5	ug/Kg	50	ND	96	48-159		
Heptachlor	52		5	ug/Kg	50	ND	104	50-144		
Heptachlor epoxide	50		5	ug/Kg	50	ND	100	48-145		
Aldrin	57		5	ug/Kg	50	ND	114	46-142		
Lindane (Gamma-BHC)	50		5	ug/Kg	50	ND	100	47-151		
4,4'-DDT	54		5	ug/Kg	50	ND	108	40-158		
4,4'-DDD	64		5	ug/Kg	50	ND	128	43-172		
4,4'-DDE	64		5	ug/Kg	50	ND	128	44-163		
Surrogate: Decachlorobiphenyl DCB (SUR)	44.6			ug/Kg	50	NA	89	50-150		
Surrogate: Tetrachloro-m-xylene TCMX (SUR)	48.6			ug/Kg	50	NA	97	50-150		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

PAH (SIM)_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193740										
LCS (QC1193740LCS1)		**Source: NA**			Prepared: 07/26/2018 Analyzed: 07/27/2018					
1-Methylnaphthalene	37		10	ug/Kg	50	NA	74	38-130		
Benz(a)anthracene	41		10	ug/Kg	50	NA	82	61-147		
Pyrene	40		10	ug/Kg	50	NA	80	68-134		
2-Methylnaphthalene	39		10	ug/Kg	50	NA	78	59-130		
Acenaphthene	36		10	ug/Kg	50	NA	72	58-130		
Anthracene	34		10	ug/Kg	50	NA	68	55-136		
Benzo(a)pyrene	38		10	ug/Kg	50	NA	76	36-168		
Benzo(b)fluoranthene	44		10	ug/Kg	50	NA	88	63-147		
Benzo(g,h,i)perylene	31		10	ug/Kg	50	NA	62	54-135		
Benzo(k)fluoranthene	46		10	ug/Kg	50	NA	92	64-142		
Phenanthrene	37		10	ug/Kg	50	NA	74	65-132		
Dibenz(a,h)anthracene	31		10	ug/Kg	50	NA	62	52-144		
Fluoranthene	42		10	ug/Kg	50	NA	84	68-139		
Fluorene	37		10	ug/Kg	50	NA	74	63-130		
Indeno(1,2,3-cd)pyrene	36		10	ug/Kg	50	NA	72	58-144		
Naphthalene	36		10	ug/Kg	50	NA	72	50-130		
Chrysene	37		10	ug/Kg	50	NA	74	66-130		
Acenaphthylene	39		10	ug/Kg	50	NA	78	52-130		
Surrogate: 2-Fluorobiphenyl (SUR)	33.026			ug/Kg	50	NA	66	30-120		
Surrogate: p-Terphenyl (SUR)	33.20			ug/Kg	50	NA	66	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	39.048			ug/Kg	50	NA	78	27-125		
Method Blank (QC1193740MB1)		**Source: NA**			Prepared & Analyzed: 07/26/2018					
Acenaphthylene	ND		10	ug/Kg		NA		-		
Fluoranthene	ND		10	ug/Kg		NA		-		
Acenaphthene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Benzo(a)pyrene	ND		10	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Fluorene	ND		10	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Phenanthrene	ND		10	ug/Kg		NA		-		
Pyrene	ND		10	ug/Kg		NA		-		
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Chrysene	ND		10	ug/Kg		NA		-		
Surrogate: 2-Fluorobiphenyl (SUR)	32.822			ug/Kg	50	NA	66	30-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

PAH (SIM)_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193740 (Continued)										
Method Blank (QC1193740MB1)		**Source: NA**			Prepared & Analyzed: 07/26/2018					
Surrogate: p-Terphenyl (SUR)	32.40			ug/Kg	50	NA	65	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	37.234			ug/Kg	50	NA	74	27-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Polychlorinated Biphenyls_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193639										
LCS (QC1193639LCS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1260	520		50	ug/Kg	500	NA	104	70-130		
PCB-1016	560		50	ug/Kg	500	NA	112	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	42.9			ug/Kg	50	NA	86	50-150		
Method Blank (QC1193639MB1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1262	ND		50	ug/Kg		NA		-		
PCB-1268	ND		50	ug/Kg		NA		-		
PCB-1260	ND		50	ug/Kg		NA		-		
PCB-1242	ND		50	ug/Kg		NA		-		
PCB-1248	ND		50	ug/Kg		NA		-		
PCB-1232	ND		50	ug/Kg		NA		-		
PCB-1221	ND		50	ug/Kg		NA		-		
PCB-1016	ND		50	ug/Kg		NA		-		
PCB-1254	ND		50	ug/Kg		NA		-		
Surrogate: Decachlorobiphenyl DCB (SUR)	24.8	S		ug/Kg	50	NA	50	50-150		
MS (QC1193639MS1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1016	570		50	ug/Kg	500	ND	114	70-130		
PCB-1260	510		50	ug/Kg	500	ND	102	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	41.5			ug/Kg	50	NA	83	50-150		
MSD (QC1193639MSD1)		**Source: NA**		Prepared & Analyzed: 07/24/2018						
PCB-1260	390	D	50	ug/Kg	500	ND	78	70-130		
PCB-1016	440	D	50	ug/Kg	500	ND	88	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	29.8			ug/Kg	50	NA	60	50-150		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193739										
LCS (QC1193739LCS1)		**Source: NA**			Prepared: 07/26/2018 Analyzed: 07/27/2018					
4-Chloro-3-methylphenol	1600		250	ug/Kg	2000	NA	80	55-129		
4-Nitrophenol	1400		250	ug/Kg	2000	NA	70	30-130		
Acenaphthene	1400		250	ug/Kg	2000	NA	70	70-113		
Benzo(b)fluoranthene	1600		250	ug/Kg	2000	NA	80	62-132		
Chrysene	1500		250	ug/Kg	2000	NA	75	63-133		
3 and 4-Methylphenol (m and p-Cresol)	1500		400	ug/Kg	2000	NA	75	55-126		
N-Nitrosodi-n-propylamine (NDPA)	1400		250	ug/Kg	2000	NA	70	53-134		
2-Chlorophenol	1300		250	ug/Kg	2000	NA	65	61-120		
2,4-Dimethylphenol	1400		250	ug/Kg	2000	NA	70	68-120		
Pentachlorophenol	1300		1200	ug/Kg	2000	NA	65	29-138		
2,4,5-Trichlorophenol	1700		250	ug/Kg	2000	NA	85	59-121		
1,4-Dichlorobenzene	1100	L	250	ug/Kg	2000	NA	55	67-113		
1,2,4-Trichlorobenzene	1200		250	ug/Kg	2000	NA	60	57-112		
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	NA	75	68-115		
Phenol	1300		250	ug/Kg	2000	NA	65	55-131		
Pyrene	1600		250	ug/Kg	2000	NA	80	73-131		
Surrogate: 2,4,6-Tribromophenol (SUR)	1616.324			ug/Kg	2000	NA	81	34-143		
Surrogate: Nitrobenzene-d5 (SUR)	1320.043			ug/Kg	2000	NA	66	27-125		
Surrogate: 2-Fluorophenol (SUR)	1327.244			ug/Kg	2000	NA	66	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1417.115			ug/Kg	2000	NA	71	41-125		
Surrogate: Phenol-d5 (SUR)	1467.461			ug/Kg	2000	NA	73	10-110		
Surrogate: p-Terphenyl (SUR)	1645.801			ug/Kg	2000	NA	82	33-155		
Method Blank (QC1193739MB1)		**Source: NA**			Prepared & Analyzed: 07/26/2018					
Phenanthrene	ND		250	ug/Kg		NA		-		
Total Cresol	ND		400	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		
Hexachloroethane	ND		250	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
Nitrobenzene	ND		1200	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
Phenol	ND		250	ug/Kg		NA		-		
Naphthalene	ND		250	ug/Kg		NA		-		
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193739 (Continued)										
Method Blank (QC1193739MB1)		**Source: NA**			Prepared & Analyzed: 07/26/2018					
3-Nitroaniline	ND		250	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
Fluorene	ND		250	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
Chrysene	ND		250	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
Dibenzofuran	ND		250	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Acenaphthene	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
4-Nitrophenol	ND		250	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193739 (Continued)										
Method Blank (QC1193739MB1)		**Source: NA**			Prepared & Analyzed: 07/26/2018					
Acenaphthylene	ND		250	ug/Kg		NA		-		
Benz(a)anthracene	ND		250	ug/Kg		NA		-		
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
Surrogate: p-Terphenyl (SUR)	1580.516			ug/Kg	2000	NA	79	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	1114.947			ug/Kg	2000	NA	56	27-125		
Surrogate: Phenol-d5 (SUR)	1342.747			ug/Kg	2000	NA	67	10-110		
Surrogate: 2-Fluorophenol (SUR)	1182.099			ug/Kg	2000	NA	59	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1258.36			ug/Kg	2000	NA	63	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1343.16			ug/Kg	2000	NA	67	34-143		
MS (QC1193739MS1)		**Source: NA**			Prepared: 07/26/2018 Analyzed: 07/27/2018					
4-Nitrophenol	1400		250	ug/Kg	2000	ND	70	37-107		
4-Chloro-3-methylphenol	1600		250	ug/Kg	2000	ND	80	33-120		
3 and 4-Methylphenol (m and p-Cresol)	1600		400	ug/Kg	2000	ND	80	33-116		
2-Chlorophenol	1400		250	ug/Kg	2000	ND	70	42-102		
2,4-Dinitrotoluene	1600		250	ug/Kg	2000	ND	80	48-109		
2,4-Dimethylphenol	1400		250	ug/Kg	2000	ND	70	37-105		
2,4,5-Trichlorophenol	1700		250	ug/Kg	2000	ND	85	44-108		
1,4-Dichlorobenzene	1200		250	ug/Kg	2000	ND	60	39-95		
1,2,4-Trichlorobenzene	1300		250	ug/Kg	2000	ND	65	35-93		
Chrysene	1600		250	ug/Kg	2000	ND	80	68-120		
Acenaphthene	1400		250	ug/Kg	2000	ND	70	57-99		
Phenol	1400		250	ug/Kg	2000	ND	70	46-116		
N-Nitrosodi-n-propylamine (NDPA)	1500		250	ug/Kg	2000	ND	75	41-127		
Pentachlorophenol	1400		1200	ug/Kg	2000	ND	70	43-120		
Benzo(b)fluoranthene	1700		250	ug/Kg	2000	ND	85	59-126		
Pyrene	1600		250	ug/Kg	2000	ND	80	53-129		
Surrogate: 2-Fluorophenol (SUR)	1370.062			ug/Kg	2000	NA	69	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1427.581			ug/Kg	2000	NA	71	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1645.007			ug/Kg	2000	NA	82	34-143		
Surrogate: Nitrobenzene-d5 (SUR)	1394.871			ug/Kg	2000	NA	70	27-125		
Surrogate: Phenol-d5 (SUR)	1516.423			ug/Kg	2000	NA	76	10-110		
Surrogate: p-Terphenyl (SUR)	1649.331			ug/Kg	2000	NA	82	33-155		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193739 (Continued)										
MSD (QC1193739MSD1)		**Source: NA**			Prepared: 07/26/2018 Analyzed: 07/27/2018					
Pentachlorophenol	1300		1200	ug/Kg	2000	ND	65	43-120		
4-Nitrophenol	1300		250	ug/Kg	2000	ND	65	37-107		
Acenaphthene	1300		250	ug/Kg	2000	ND	65	57-99		
Benzo(b)fluoranthene	1500		250	ug/Kg	2000	ND	75	59-126		
Chrysene	1400		250	ug/Kg	2000	ND	70	68-120		
3 and 4-Methylphenol (m and p-Cresol)	1400		400	ug/Kg	2000	ND	70	33-116		
N-Nitrosodi-n-propylamine (NDPA)	1300		250	ug/Kg	2000	ND	65	41-127		
Phenol	1300		250	ug/Kg	2000	ND	65	46-116		
Pyrene	1500		250	ug/Kg	2000	ND	75	53-129		
1,4-Dichlorobenzene	1100		250	ug/Kg	2000	ND	55	39-95		
4-Chloro-3-methylphenol	1500		250	ug/Kg	2000	ND	75	33-120		
1,2,4-Trichlorobenzene	1100		250	ug/Kg	2000	ND	55	35-93		
2,4,5-Trichlorophenol	1500		250	ug/Kg	2000	ND	75	44-108		
2,4-Dimethylphenol	1200		250	ug/Kg	2000	ND	60	37-105		
2,4-Dinitrotoluene	1400		250	ug/Kg	2000	ND	70	48-109		
2-Chlorophenol	1200		250	ug/Kg	2000	ND	60	42-102		
Surrogate: 2-Fluorophenol (SUR)	1237.364			ug/Kg	2000	NA	62	13-153		
Surrogate: Phenol-d5 (SUR)	1312.287			ug/Kg	2000	NA	66	10-110		
Surrogate: p-Terphenyl (SUR)	1376.905			ug/Kg	2000	NA	69	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	1191.416			ug/Kg	2000	NA	60	27-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1374.009			ug/Kg	2000	NA	69	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1208.259			ug/Kg	2000	NA	60	41-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020										
Blank (B8G0020-BLK1)				Prepared & Analyzed: 07/23/2018						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020 (Continued)										
Blank (B8G0020-BLK1)				Prepared & Analyzed: 07/23/2018						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		8.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	49			µg/Kg	50.0		97.8	60-140		
Surrogate: 4-Bromofluorobenzene	47			µg/Kg	50.0		93.9	60-140		
Surrogate: 1,2-Dichloroethane-d4	53			µg/Kg	50.0		105	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		97.9	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020 (Continued)										
LCS (B8G0020-BS1)				Prepared & Analyzed: 07/23/2018						
Benzene	50		1.0	µg/Kg	50.0		99.6	70-130		
Bromobenzene	50		1.0	µg/Kg	50.0		99.0	70-130		
Bromodichloromethane	50		1.0	µg/Kg	50.0		99.3	70-130		
Bromoform	47		1.0	µg/Kg	50.0		94.9	70-130		
Chlorobenzene	48		1.0	µg/Kg	50.0		95.9	70-130		
Chloroethane	48		5.0	µg/Kg	50.0		96.0	70-130		
Chloroform	48		1.0	µg/Kg	50.0		96.0	70-130		
4-Chlorotoluene	50		1.0	µg/Kg	50.0		100	70-130		
Dibromomethane	49		1.0	µg/Kg	50.0		97.5	70-130		
1,2-Dichlorobenzene	49		1.0	µg/Kg	50.0		97.5	70-130		
1,1-Dichloroethene	50		1.0	µg/Kg	50.0		99.3	70-130		
1,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.3	70-130		
2,2-Dichloropropane	48		1.0	µg/Kg	50.0		96.9	70-130		
1,1-Dichloropropene	47		1.0	µg/Kg	50.0		94.6	70-130		
Diethyl Ether	48		5.0	µg/Kg	50.0		96.0	70-130		
Diisopropyl Ether (DIPE)	50		1.0	µg/Kg	50.0		99.3	70-130		
Ethylbenzene	51		1.0	µg/Kg	50.0		101	70-130		
Hexachloro-1,3-Butadiene	44		1.0	µg/Kg	50.0		88.2	70-130		
Methylene Chloride	55		10	µg/Kg	50.0		109	70-130		
Methyl-t-Butyl Ether (MTBE)	48		1.0	µg/Kg	50.0		96.6	70-130		
Naphthalene	47		10	µg/Kg	50.0		93.9	70-130		
Styrene	52		1.0	µg/Kg	50.0		104	70-130		
tert-Butylbenzene	47		1.0	µg/Kg	50.0		93.7	70-130		
Tetrachloroethene	47		1.0	µg/Kg	50.0		93.8	70-130		
Toluene	50		1.0	µg/Kg	50.0		100	70-130		
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		98.3	70-130		
Trichloroethene	48		1.0	µg/Kg	50.0		96.8	70-130		
1,3,5-Trimethylbenzene	52		1.0	µg/Kg	50.0		103	70-130		
Vinyl Chloride	45		1.0	µg/Kg	50.0		90.6	70-130		
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		99.7	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		99.7	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		100	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0020 (Continued)										
LCS Dup (B8G0020-BSD1)				Prepared & Analyzed: 07/23/2018						
Benzene	47		1.0	µg/Kg	50.0		94.5	70-130	5.28	20
Bromobenzene	49		1.0	µg/Kg	50.0		98.0	70-130	0.995	20
Bromodichloromethane	50		1.0	µg/Kg	50.0		99.4	70-130	0.0805	20
Bromoform	47		1.0	µg/Kg	50.0		94.7	70-130	0.232	20
Chlorobenzene	47		1.0	µg/Kg	50.0		93.7	70-130	2.28	20
Chloroethane	49		5.0	µg/Kg	50.0		98.3	70-130	2.35	20
Chloroform	48		1.0	µg/Kg	50.0		95.1	70-130	0.942	20
4-Chlorotoluene	49		1.0	µg/Kg	50.0		98.0	70-130	2.20	20
Dibromomethane	49		1.0	µg/Kg	50.0		98.1	70-130	0.634	20
1,2-Dichlorobenzene	48		1.0	µg/Kg	50.0		95.7	70-130	1.86	20
1,1-Dichloroethene	47		1.0	µg/Kg	50.0		94.4	70-130	5.10	20
1,2-Dichloropropane	48		1.0	µg/Kg	50.0		96.1	70-130	3.28	20
2,2-Dichloropropane	46		1.0	µg/Kg	50.0		92.6	70-130	4.54	20
1,1-Dichloropropene	44		1.0	µg/Kg	50.0		88.7	70-130	6.44	20
Diethyl Ether	48		5.0	µg/Kg	50.0		95.6	70-130	0.459	20
Diisopropyl Ether (DIPE)	48		1.0	µg/Kg	50.0		96.8	70-130	2.57	20
Ethylbenzene	48		1.0	µg/Kg	50.0		95.7	70-130	5.59	20
Hexachloro-1,3-Butadiene	44		1.0	µg/Kg	50.0		87.6	70-130	0.683	20
Methylene Chloride	53		10	µg/Kg	50.0		106	70-130	3.23	20
Methyl-t-Butyl Ether (MTBE)	48		1.0	µg/Kg	50.0		96.2	70-130	0.373	20
Naphthalene	47		10	µg/Kg	50.0		93.0	70-130	0.984	20
Styrene	51		1.0	µg/Kg	50.0		102	70-130	1.61	20
tert-Butylbenzene	46		1.0	µg/Kg	50.0		91.5	70-130	2.42	20
Tetrachloroethene	45		1.0	µg/Kg	50.0		89.4	70-130	4.80	20
Toluene	49		1.0	µg/Kg	50.0		97.5	70-130	3.01	20
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		97.6	70-130	0.653	20
Trichloroethene	46		1.0	µg/Kg	50.0		92.9	70-130	4.18	20
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		98.0	70-130	5.23	20
Vinyl Chloride	46		1.0	µg/Kg	50.0		92.3	70-130	1.82	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		100	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.2	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
D	RPD was not within control limits. The sample data was reported without further clarification.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 3

PAL WO#: P807020

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	907-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo / Klara Perkins

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH ext w/ silica gel 8015	CrVI 7199	Title 22 Metals 6010/7000s	VOCs 8260B	SVOCs and PAHs 8270C SIM	Dioxins 1613	PCBs 8082	Pesticides 8081
1	MAP-LT-3-1'	7/20	0820	S	2/8oz. jars		X	X					
2	MAP-LT-3-5'	7/20	0825	S	2/8oz.jar; VOAs	X	X	X	X				
3	MAP-LT-3-10'	7/20	0830	S	2/8oz.jar; VOAs	X	X	X	X				
4	MAP-LT-3-15'	7/20	0835	S	1/8oz.jar	X							
5	MAP-LT-3-20'	7/20	0845	S	VOAs				X				
6	MAP-LT-1-1'	7/20	0915	S	2/8oz.jar		X					X	
7	MAP-LT-1-5'	7/20	0925	S	2/8oz.jar	X	X					X	
8	MAP-LT-1-10'	7/20	0930	S	2/8oz.jar	X	X						
9	MAP-LT-1-15'	7/20	0935	S	1/8oz.jar	X							
10	MAP-LT-2-1'	7/20	1025	S	2/8oz.jar		X	X		X			

G-3365

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): STD 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: Yes / No

Type of EDD:

Reciept Temp./ Initials: (Temp recorded is not corrected) 6.2°C MV

RELINQUISHED BY
Signature: [signature]
Print: Brad A. McCardell
Company: Langan
DATE: 7/21/18
TIME: 0923

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/21/18
TIME: 923

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

mance Analytical Laboratories, Inc.

2 East Willow Street, Signal Hill, CA 90755
0-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P807020

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo / Klara Perkins

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	Cr VI 7199	Title 22 Metals 6010/7000	VOCs 8260B	SVOCs and PAHs 8270C SIM	Dioxins 1613	PCBs 8082
1	MAP-LT-2-5'	7/20	1027	S	2/ 8oz. jars		X	X		X		
2	MAP-LT-2-10'	7/20	1030	S	2/ 8oz. jars		X	X		X		
3	MAP-LT-2-15'	7/20	1040	S	1/ 8oz. jars	X						
4	MSA-LT-5-1'	7/20	1335	S	2/ 8oz. jars		X	X		X		
5	MSA-LT-5-5'	7/20	1340	S	2/ 8oz. jars	X	X	X		X		
6	MSA-LT-5-10'	7/20	1347	S	2/ 8oz. jars	X	X	X		X		
7	MSA-LT-5-15'	7/20	1355	S	2/ 8oz. jars	X						
8	GCP-LT-1-1'	7/20	1300	S	2/ 8oz. jars		X	X				
9	GCP-LT-8-1'	7/20	1435	S	2/ 8oz. jars		X	X			X	
10	GCP-LT-8-5'	7/20	1440	S	2/ 8oz. jars		X	X			X	

REQUESTED ANALYSIS

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): STD 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY
Signature:
Print: Brad A. McCardell
Company: Langan
DATE: 7/21/18
TIME: 0823

RECEIVED BY
Signature:
Print: M Valenzuela
Company: PAL
DATE: 7/21/18
TIME: 923

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3366

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 3 of 3

PAL WO#: P807020

Client Name	Langan
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo / Klara Perkins

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	CrVI 7199	Title 22 Metals 6010/7000	8270C SVOCs w/ PAHs SIM	Dioxins 1613	PCBs 8082
1	GCP-LT-8-10'	7/20	1442	S	2/ 8oz. jars		X	X		X	
2	GCP-LT-9-1'	7/20	1502	S	2/ 8oz jars		X	X		X	
3	GCP-LT-9-5'	7/20	1507	S	2/ 8oz. jar		X	X		X	
4	GCP-LT-9-10'	7/20	1510	S	2/ 8oz. jar		X	X		X	
5	GCP-LT-7-1'	7/20	1540	S	2/ 8oz. jars		X	X		X	X
6	GCP-LT-7-5'	7/20	1545	S	2/ 8oz jars	X	X	X		X	X
7	GCP-LT-7-10'	7/20	1550	S	2/ 8 oz jars	X	X	X		X	
8	GCP-LT-7-15'	7/20	1555	S	1/ 8 oz jar	X					
9											
10											

REQUESTED ANALYSIS

G-3367

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/21/18
TIME: 0923

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 7/21/18
TIME: 923

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807020

Cooler 1 OF 1

Client Langan

Date Received: 7/20/18

Courier (X) CLIENT ( ) PALI ( ) OTHER _____ ( ) FEDEX ( ) UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	( ) Blank (X) Sample	6.2	0.0	6.2	TM-12

(X) WET ICE ( ) BLUE ICE ( ) AMBIENT ( ) OTHER _____

( ) Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ( ) Present and Intact ( ) Present and **NOT** Intact ( ) Seals signed and dated (X) Not Present

Sample Seal ( ) Present and Intact ( ) Present and **NOT** Intact ( ) Seals signed and dated (X) Not Present

CLIENT COC

(X) INCLUDED ( ) NOT INCLUDED (X) Complete ( ) Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

(X) SOLID ( ) LIQUID ( ) AIR ( ) OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MV	7/20/18		

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

404759

Work Order ID: P807020

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P807020-01 Matrix: Solid Sampled: 07/20/2018 08:20			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-02 Matrix: Solid Sampled: 07/20/2018 08:25			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807020-03 Matrix: Solid Sampled: 07/20/2018 08:30			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/23/18	1312	[signature]	7/23/18	1315
[signature]	7/23/18	1440	[signature]	07/23/18	1440

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807020

Analysis	TAT	Due	Comments
Sample ID: P807020-06 Matrix: Solid Sampled: 07/20/2018 09:15			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_OCP 8081A	5	07/30/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-07 Matrix: Solid Sampled: 07/20/2018 09:25			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_OCP 8081A	5	07/30/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807020-08 Matrix: Solid Sampled: 07/20/2018 09:30			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807020-10 Matrix: Solid Sampled: 07/20/2018 10:25			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PAH 8270 SIM	5	07/30/2018 15:00	
S_SVOA 8270C	5	07/30/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
	7/23/18	1312		7/23/18	1315
	7/23/18	1440		07/23/18	1440

Analysis	TAT	Due	Comments
Sample ID: P807020-11 Matrix: Solid Sampled: 07/20/2018 10:27			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PAH 8270 SIM	5	07/30/2018 15:00	
S_SVOA 8270C	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-12 Matrix: Solid Sampled: 07/20/2018 10:30			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PAH 8270 SIM	5	07/30/2018 15:00	
S_SVOA 8270C	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-14 Matrix: Solid Sampled: 07/20/2018 13:35			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PAH 8270 SIM	5	07/30/2018 15:00	
S_SVOA 8270C	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
	7/23/18	1312		7/23/18	1315
	7/23/18	1440		07/24/18	1440

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807020

Analysis	TAT	Due	Comments
Sample ID: P807020-15 Matrix: Solid Sampled: 07/20/2018 13:40			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PAH 8270 SIM	5	07/30/2018 15:00	
S_SVOA 8270C	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807020-16 Matrix: Solid Sampled: 07/20/2018 13:47			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PAH 8270 SIM	5	07/30/2018 15:00	
S_SVOA 8270C	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807020-18 Matrix: Solid Sampled: 07/20/2018 13:00			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
	7/23/18	1312		7/23/18	1315
	7-23-18	1440		07/23/18	1440

Analysis	TAT	Due	Comments
Sample ID: P807020-19 Matrix: Solid Sampled: 07/20/2018 14:35			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-20 Matrix: Solid Sampled: 07/20/2018 14:40			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-21 Matrix: Solid Sampled: 07/20/2018 14:42			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/23/18	1312	[signature]	7/23/18	1315
[signature]	7/23/18	1440	[signature]	07/23/18	1440

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807020

Analysis	TAT	Due	Comments
Sample ID: P807020-22 Matrix: Solid Sampled: 07/20/2018 15:02			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-23 Matrix: Solid Sampled: 07/20/2018 15:07			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-24 Matrix: Solid Sampled: 07/20/2018 15:10			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/20/18	1312	[signature]	7/23/18	1315
[signature]	7/23/18	B 1440	[signature]	07/23/18	1440

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807020

Analysis	TAT	Due	Comments
Sample ID: P807020-25 Matrix: Solid Sampled: 07/20/2018 15:40			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PCB 8082	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-26 Matrix: Solid Sampled: 07/20/2018 15:45			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PCB 8082	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807020-27 Matrix: Solid Sampled: 07/20/2018 15:50			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

2.0/37

Released By	Date	Time	Received By	Date	Time
[signature]	7/23/18	1312	[signature]	7/23/18	1315
[signature]	7/23/18	1315 1440	[signature]	07/23/18	1440

G-3375

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Laboratories, Inc. Project: P807020

Date Received: 07/23/18 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 2.6 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 3.7 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	✓		
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 07/23/18

Performance Analytical Laboratories, Inc.

ELAP 2960

August 14, 2018

Change Order Report

Langan
32 Executive Park, Suite 130
Irvine, CA 92614-4721

Re: DTSC Riverside
Project No. : Agua Mansa
Work Order: P807020

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/21/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,

Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 8

Qualifiers and Definitions 9

Exceptions List 10

Chain of Custody PDFs 11

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807020-01	MAP-LT-3-1'		Solid	07/20/2018	07/21/2018
P807020-02	MAP-LT-3-5'		Solid	07/20/2018	07/21/2018
P807020-03	MAP-LT-3-10'		Solid	07/20/2018	07/21/2018
P807020-10	MAP-LT-2-1'		Solid	07/20/2018	07/21/2018
P807020-11	MAP-LT-2-5'		Solid	07/20/2018	07/21/2018
P807020-12	MAP-LT-2-10'		Solid	07/20/2018	07/21/2018
P807020-14	MSA-LT-5-1'		Solid	07/20/2018	07/21/2018
P807020-15	MSA-LT-5-5'		Solid	07/20/2018	07/21/2018
P807020-16	MSA-LT-5-10'		Solid	07/20/2018	07/21/2018
P807020-18	GCP-LT-1-1'		Solid	07/20/2018	07/21/2018
P807020-19	GCP-LT-8-1'		Solid	07/20/2018	07/21/2018
P807020-20	GCP-LT-8-5'		Solid	07/20/2018	07/21/2018
P807020-21	GCP-LT-8-10'		Solid	07/20/2018	07/21/2018
P807020-22	GCP-LT-9-1'		Solid	07/20/2018	07/21/2018
P807020-23	GCP-LT-9-5'		Solid	07/20/2018	07/21/2018
P807020-24	GCP-LT-9-10'		Solid	07/20/2018	07/21/2018
P807020-25	GCP-LT-7-1'		Solid	07/20/2018	07/21/2018
P807020-26	GCP-LT-7-5'		Solid	07/20/2018	07/21/2018
P807020-27	GCP-LT-7-10'		Solid	07/20/2018	07/21/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-3-1' **P807020-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**9.48**	pH Units	1		08/14/2018	EPA 9045	

Sample: MAP-LT-3-5' **P807020-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0017)							
pH	**7.86**	pH Units	1		08/14/2018	EPA 9045	

Sample: MAP-LT-3-10' **P807020-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**7.07**	pH Units	1		08/14/2018	EPA 9045	

Sample: MAP-LT-2-1' **P807020-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**6.18**	pH Units	1		08/14/2018	EPA 9045	

Sample: MAP-LT-2-5' **P807020-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**8.73**	pH Units	1		08/14/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MAP-LT-2-10' **P807020-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**6.64**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-5-1' **P807020-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**11.3**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-5-5' **P807020-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**9.34**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-5-10' **P807020-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**9.12**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-1-1' **P807020-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**11.4**	pH Units	1		08/14/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-8-1' **P807020-19 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**7.25**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-8-5' **P807020-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**7.98**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-8-10' **P807020-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**8.17**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-9-1' **P807020-22 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**8.24**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-9-5' **P807020-23 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**8.74**	pH Units	1		08/14/2018	EPA 9045	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-9-10' **P807020-24 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**8.23**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-7-1' **P807020-25 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**8.45**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-7-5' **P807020-26 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**8.37**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-7-10' **P807020-27 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**8.35**	pH Units	1		08/14/2018	EPA 9045	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

pH by 9045

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8H0017										
Duplicate (B8H0017-DUP1)		**Source: P807019-06**		Prepared: 08/13/2018 Analyzed: 08/14/2018						
pH	8.69			pH Units		9.16			5.27	20
Batch: B8H0018										
Duplicate (B8H0018-DUP1)		**Source: P807020-15**		Prepared: 08/13/2018 Analyzed: 08/14/2018						
pH	9.19			pH Units		9.34			1.62	20

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			No subcontracted Samples found in data set.

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2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 3

PAL WO#: P807020

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	907-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo / Klara Perkins

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH ext w/ silica gel 8015	CrVI 7199	Title 22 Metals 6010/7000s	VOCs 8260B	SVOCs and PAHs 8270C SIM	Dioxins 1613	PCBs 8082	Pesticides 8081
1	MAP-LT-3-1'	7/20	0820	S	2/8oz. jars		X	X					
2	MAP-LT-3-5'	7/20	0825	S	2/8oz.jar; VOAs	X	X	X	X				
3	MAP-LT-3-10'	7/20	0830	S	2/8oz.jar; VOAs	X	X	X	X				
4	MAP-LT-3-15'	7/20	0835	S	1/8oz.jar	X							
5	MAP-LT-3-20'	7/20	0845	S	VOAs				X				
6	MAP-LT-1-1'	7/20	0915	S	2/8oz.jar		X					X	
7	MAP-LT-1-5'	7/20	0925	S	2/8oz.jar	X	X					X	
8	MAP-LT-1-10'	7/20	0930	S	2/8oz.jar	X	X						
9	MAP-LT-1-15'	7/20	0935	S	1/8oz.jar	X							
10	MAP-LT-2-1'	7/20	1025	S	2/8oz.jar		X	X		X			

G-3387

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	STD 5 day	RUSH 24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	6.2°C MV	

RELINQUISHED BY
Signature: [signature]
Print: Brad A. McCardell
Company: Langan
DATE: 7/21/18
TIME: 0923

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/21/18
TIME: 923

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

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0-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P807020

Client Name	Langan
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo / Klara Perkins

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	Cr VI 7199	Title 22 Metals 6010/7000	VOCs 8260B	SVOCs and PAHs 8270C SIM	Dioxins 1613	PCBs 8082
1	MAP-LT-2-5'	7/20	1027	S	2/ 8oz. jars		X	X		X		
2	MAP-LT-2-10'	7/20	1030	S	2/ 8oz. jars		X	X		X		
3	MAP-LT-2-15'	7/20	1040	S	1/ 8oz. jars	X						
4	MSA-LT-5-1'	7/20	1335	S	2/ 8oz. jars		X	X		X		
5	MSA-LT-5-5'	7/20	1340	S	2/ 8oz. jars	X	X	X		X		
6	MSA-LT-5-10'	7/20	1347	S	2/ 8oz jars	X	X	X		X		
7	MSA-LT-5-15'	7/20	1355	S	2/ 8oz. jars	X						
8	GCP-LT-1-1'	7/20	1300	S	2/ 8oz jars		X	X				
9	GCP-LT-8-1'	7/20	1435	S	2/ 8oz jars		X	X			X	
10	GCP-LT-8-5'	7/20	1440	S	2/ 8oz jars		X	X			X	

REQUESTED ANALYSIS

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): STD 5 day | RUSH 24 48 72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY
Signature:
Print: Brad A. McCardell
Company: Langan
DATE: 7/21/18
TIME: 0823

RECEIVED BY
Signature:
Print: M Valenzuela
Company: POC
DATE: 7/21/18
TIME: 923

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-3388

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310-809-1041

CHAIN-OF-CUSTODY

page 3 of 3

PAL WO#: P807020

Client Name	Langan
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo / Klara Perkins

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbanchain 8015	CrVI 7199	Title 22 Metals 6010/7000	8270C SVOCs and PAHs SIM	Dioxins 1613	PCBs 8082
1	GCP-LT-8-10'	7/20	1442	S	2/ 8oz. jars		X	X		X	
2	GCP-LT-9-1'	7/20	1502	S	2/ 8oz jars		X	X		X	
3	GCP-LT-9-5'	7/20	1507	S	2/ 8oz. jar		X	X		X	
4	GCP-LT-9-10'	7/20	1510	S	2/ 8oz. jar		X	X		X	
5	GCP-LT-7-1'	7/20	1540	S	2/ 8oz. jars		X	X		X	X
6	GCP-LT-7-5'	7/20	1545	S	2/ 8oz jars	X	X	X		X	X
7	GCP-LT-7-10'	7/20	1550	S	2/ 8 oz jars	X	X	X		X	
8	GCP-LT-7-15'	7/20	1555	S	1/ 8 oz jar	X					
9											
10											

REQUESTED ANALYSIS

G-3389

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD 5 day	RUSH 24	48	72
EDD Required - Circle one:	Yes	No		
Type of EDD:				
Reciept Temp./ Initials: (Temp recorded is not corrected)				

RELINQUISHED BY

Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/21/18
TIME: 0923

RECEIVED BY

Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 7/21/18
TIME: 923

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807020

Cooler 1 OF 1

Client Langan

Date Received: 7/20/18

Courier (X) CLIENT ( ) PALI ( ) OTHER _____ ( ) FEDEX ( ) UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	( ) Blank (X) Sample	6.2	0.0	6.2	TM-12

(X) WET ICE ( ) BLUE ICE ( ) AMBIENT ( ) OTHER _____

( ) Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ( ) Present and Intact ( ) Present and **NOT** Intact ( ) Seals signed and dated (X) Not Present

Sample Seal ( ) Present and Intact ( ) Present and **NOT** Intact ( ) Seals signed and dated (X) Not Present

CLIENT COC

(X) INCLUDED ( ) NOT INCLUDED (X) Complete ( ) Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

(X) SOLID ( ) LIQUID ( ) AIR ( ) OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MV	7/20/18		

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

404759

Work Order ID: P807020

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P807020-01 Matrix: Solid Sampled: 07/20/2018 08:20			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-02 Matrix: Solid Sampled: 07/20/2018 08:25			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807020-03 Matrix: Solid Sampled: 07/20/2018 08:30			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/23/18	1312	[signature]	7/23/18	1315
[signature]	7/23/18	1440	[signature]	07/23/18	1440

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807020

Analysis	TAT	Due	Comments
Sample ID: P807020-06 Matrix: Solid Sampled: 07/20/2018 09:15			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_OCP 8081A	5	07/30/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-07 Matrix: Solid Sampled: 07/20/2018 09:25			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_OCP 8081A	5	07/30/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807020-08 Matrix: Solid Sampled: 07/20/2018 09:30			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807020-10 Matrix: Solid Sampled: 07/20/2018 10:25			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PAH 8270 SIM	5	07/30/2018 15:00	
S_SVOA 8270C	5	07/30/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
	7/23/18	1312		7/23/18	1315
	7/23/18	1440		07/23/18	1440

Analysis	TAT	Due	Comments
Sample ID: P807020-11 Matrix: Solid Sampled: 07/20/2018 10:27			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PAH 8270 SIM	5	07/30/2018 15:00	
S_SVOA 8270C	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-12 Matrix: Solid Sampled: 07/20/2018 10:30			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PAH 8270 SIM	5	07/30/2018 15:00	
S_SVOA 8270C	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-14 Matrix: Solid Sampled: 07/20/2018 13:35			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PAH 8270 SIM	5	07/30/2018 15:00	
S_SVOA 8270C	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/23/18	1312	[signature]	7/23/18	1315
[signature]	7/23/18	1440	[signature]	07/24/18	1440

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807020

Analysis	TAT	Due	Comments
Sample ID: P807020-15 Matrix: Solid Sampled: 07/20/2018 13:40			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PAH 8270 SIM	5	07/30/2018 15:00	
S_SVOA 8270C	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807020-16 Matrix: Solid Sampled: 07/20/2018 13:47			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PAH 8270 SIM	5	07/30/2018 15:00	
S_SVOA 8270C	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807020-18 Matrix: Solid Sampled: 07/20/2018 13:00			
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
	7/23/18	1312		7/23/18	1315
	7-23-18	1440		07/23/18	1440

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807020

Analysis	TAT	Due	Comments
Sample ID: P807020-19 Matrix: Solid Sampled: 07/20/2018 14:35			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-20 Matrix: Solid Sampled: 07/20/2018 14:40			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-21 Matrix: Solid Sampled: 07/20/2018 14:42			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/23/18	1312	[signature]	7/23/18	1315
[signature]	7/23/18	1440	[signature]	07/23/18	1440

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807020

Analysis	TAT	Due	Comments
Sample ID: P807020-22 Matrix: Solid Sampled: 07/20/2018 15:02			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-23 Matrix: Solid Sampled: 07/20/2018 15:07			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-24 Matrix: Solid Sampled: 07/20/2018 15:10			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/20/18	1312	[signature]	7/23/18	1315
[signature]	7/23/18	B 1440	[signature]	07/23/18	1440

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807020

Analysis	TAT	Due	Comments
Sample ID: P807020-25 Matrix: Solid Sampled: 07/20/2018 15:40			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PCB 8082	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807020-26 Matrix: Solid Sampled: 07/20/2018 15:45			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
S_PCB 8082	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807020-27 Matrix: Solid Sampled: 07/20/2018 15:50			
S_Dioxin (17 Congeners)	5	07/30/2018 15:00	
S_Hexavalent Chromium 7199	5	07/30/2018 15:00	
S_Mercury 7471	5	07/30/2018 15:00	
S_Metals 6010B Title 22	5	07/30/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

2.0/37

Released By	Date	Time	Received By	Date	Time
	7/23/18	1312		7/23/18	1315
	7/23/18	1315 1440		07/23/18	1440

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Laboratories, Inc. Project: P807020

Date Received: 07/23/18 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 2.6 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 3.7 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)	✓		
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 07/23/18

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

Agua Mansa Additional TPH Samples

Klara Perkins <kperkins@langan.com>

Mon 8/6/2018 5:21 PM

To: Marycarol Valenzuela <mvalenzuela@pali-labs.com>;

Cc: Brad Mccardell <bmccardell@langan.com>;

Hi Marycarol,

As discussed in the call with Brad this afternoon, we'd like to run samples MAP-LT-2-5' and MAP-LT-2-10' for TPH (Carbon chain 8015) please. They were originally in the report P807020 and the sample date is listed as 7/20/2018.

Thanks,
Klara

Klara Perkins
Intern
Direct: 213.314.8171
File Sharing Link

LANGAN
Phone: 213.314.8100 Fax: 213.314.8101
515 S Flower Street, Suite 2860

Los Angeles, CA 90071
www.langan.com

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Langan's goal is to be SAFE (Stay Accident Free Everyday)
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Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Matrix	Qualifier	Date Sampled	Date Received
P807020-01	MAP-LT-3-1'	Solid		07/20/2018	07/21/2018
P807020-02	MAP-LT-3-5'	Solid		07/20/2018	07/21/2018
P807020-03	MAP-LT-3-10'	Solid		07/20/2018	07/21/2018
P807020-04	MAP-LT-3-15'	Solid		07/20/2018	07/21/2018
P807020-05	MAP-LT-3-20'	Solid		07/20/2018	07/21/2018
P807020-06	MAP-LT-1-1'	Solid		07/20/2018	07/21/2018
P807020-07	MAP-LT-1-5'	Solid		07/20/2018	07/21/2018
P807020-08	MAP-LT-1-10'	Solid		07/20/2018	07/21/2018
P807020-09	MAP-LT-1-15'	Solid		07/20/2018	07/21/2018
P807020-10	MAP-LT-2-1'	Solid		07/20/2018	07/21/2018
P807020-11	MAP-LT-2-5'	Solid		07/20/2018	07/21/2018
P807020-12	MAP-LT-2-10'	Solid		07/20/2018	07/21/2018
P807020-13	MAP-LT-2-15'	Solid		07/20/2018	07/21/2018
P807020-14	MSA-LT-5-1'	Solid		07/20/2018	07/21/2018
P807020-15	MSA-LT-5-5'	Solid		07/20/2018	07/21/2018
P807020-16	MSA-LT-5-10'	Solid		07/20/2018	07/21/2018
P807020-17	MSA-LT-5-15'	Solid		07/20/2018	07/21/2018
P807020-18	GCP-LT-1-1'	Solid		07/20/2018	07/21/2018
P807020-19	GCP-LT-8-1'	Solid		07/20/2018	07/21/2018
P807020-20	GCP-LT-8-5'	Solid		07/20/2018	07/21/2018
P807020-21	GCP-LT-8-10'	Solid		07/20/2018	07/21/2018
P807020-22	GCP-LT-9-1'	Solid		07/20/2018	07/21/2018
P807020-23	GCP-LT-9-5'	Solid		07/20/2018	07/21/2018
P807020-24	GCP-LT-9-10'	Solid		07/20/2018	07/21/2018
P807020-25	GCP-LT-7-1'	Solid		07/20/2018	07/21/2018
P807020-26	GCP-LT-7-5'	Solid		07/20/2018	07/21/2018
P807020-27	GCP-LT-7-10'	Solid		07/20/2018	07/21/2018
P807020-28	GCP-LT-7-15'	Solid		07/20/2018	07/21/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

July 30, 2018

** DRAFT **

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Agua Mansa

Work Order: P807022

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/24/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,

DRAFT REPORT
DATA SUBJECT TO CHANGE

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 10

Qualifiers and Definitions 11

Chain of Custody PDF 12

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807022-02	GCP-LT-10-5'		Solid	07/23/2018	07/24/2018
P807022-03	GCP-LT-10-10'		Solid	07/23/2018	07/24/2018
P807022-04	GCP-LT-10-15'		Solid	07/23/2018	07/24/2018
P807022-06	GCP-LT-11-5'		Solid	07/23/2018	07/24/2018
P807022-07	GCP-LT-11-10'		Solid	07/23/2018	07/24/2018
P807022-08	GCP-LT-11-15'		Solid	07/23/2018	07/24/2018
P807022-10	MSA-LT-4-5'		Solid	07/23/2018	07/24/2018
P807022-11	MSA-LT-4-10'		Solid	07/23/2018	07/24/2018
P807022-12	MSA-LT-4-15'		Solid	07/23/2018	07/24/2018
P807022-17	MSA-LT-2-5'		Solid	07/23/2018	07/24/2018
P807022-18	MSA-LT-2-10'		Solid	07/23/2018	07/24/2018
P807022-19	MSA-LT-2-15'		Solid	07/23/2018	07/24/2018

DRAFT

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-10-5' **P807022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	95.7%			60-140	07/27/2018	EPA 8015B (M)	

Sample: GCP-LT-10-10' **P807022-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	93.6%			60-140	07/27/2018	EPA 8015B (M)	

DRAFT

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-10-15' **P807022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	95.5%			60-140	07/27/2018	EPA 8015B (M)	

Sample: GCP-LT-11-5' **P807022-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	92.0%			60-140	07/27/2018	EPA 8015B (M)	

DRAFT

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-11-10' **P807022-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	95.6%			60-140	07/28/2018	EPA 8015B (M)	

Sample: GCP-LT-11-15' **P807022-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	97.4%			60-140	07/28/2018	EPA 8015B (M)	

DRAFT

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-4-5' **P807022-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	97.3%			60-140	07/28/2018	EPA 8015B (M)	

Sample: MSA-LT-4-10' **P807022-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	94.0%			60-140	07/28/2018	EPA 8015B (M)	

DRAFT

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-4-15' **P807022-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	95.1%			60-140	07/28/2018	EPA 8015B (M)	

Sample: MSA-LT-2-5' **P807022-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	94.5%			60-140	07/28/2018	EPA 8015B (M)	

DRAFT

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-2-10' **P807022-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	99.3%			60-140	07/28/2018	EPA 8015B (M)	

Sample: MSA-LT-2-15' **P807022-19 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	91.8%			60-140	07/28/2018	EPA 8015B (M)	

DRAFT

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0024										
Blank (B8G0024-BLK1)				Prepared: 07/25/2018 Analyzed: 07/27/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.84			mg/kg	2.00		92.2	60-140		
LCS (B8G0024-BS1)				Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	43.7		2.50	mg/kg	50.0		87.3	70-130		
Surrogate: n-Octacosane (c28)	1.74			mg/kg	2.00		87.0	60-140		
LCS Dup (B8G0024-BSD1)				Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	46.4		2.50	mg/kg	50.0		92.7	70-130	6.00	20
Surrogate: n-Octacosane (c28)	1.85			mg/kg	2.00		92.4	60-140		
Matrix Spike (B8G0024-MS1)		**Source: P807020-28**		Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	39.7		2.50	mg/kg	50.0	ND	79.5	70-130		
Surrogate: n-Octacosane (c28)	1.81			mg/kg	2.00		90.7	60-140		
Matrix Spike Dup (B8G0024-MSD1)		**Source: P807020-28**		Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	46.3		2.50	mg/kg	50.0	ND	92.5	70-130	15.2	20
Surrogate: n-Octacosane (c28)	1.89			mg/kg	2.00		94.7	60-140		

DRAFT

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

DRAFT

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 3

PAL WO#: A607022

Client Name	Langan
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	7210135O1
Sampled By	Kathleen Lo

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	CrVI 7199	Title 22 Metals 6010/7000	Dioxins 1613	PCBs 8082
1	GCP-LT-10-1'	7/23	0750	S	2/ 8oz. jar		X	X	X	X
2	GCP-LT-10-5'	7/23	0800	S	2/ 8oz. jar	X	X	X	X	X
3	GCP-LT-10-10'	7/23	0807	S	2/ 8oz. jar	X	X	X	X	
4	GCP-LT-10-15'	7/23	0813	S	1/ 8oz. jar	X				
5	GCP-LT-11-1'	7/23	0843	S	2/ 8oz. jar		X	X	X	X
6	GCP-LT-11-5'	7/23	0845	S	2/ 8oz. jar	X	X	X	X	X
7	GCP-LT-11-10'	7/23	0850	S	2/ 8oz. jar	X	X	X	X	
8	GCP-LT-11-15'	7/23	0900	S	1/ 8oz. jar	X				
9	MSA-LT-4-1'	7/23	1005	S	2/ 8oz. jar		X	X		X
10	MSA-LT-4-5'	7/23	1010	S	2/ 8oz. jar	X	X	X		X

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: Yes / No

Type of EDD:

Reciept Temp./ Initials: (Temp recorded is not corrected) 2.5°C MV

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/24/18
TIME: 1035

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 7/24/18
TIME: 1035

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-3412

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 2 of 3

PAL WO#: P807022

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	907-771-8217
Project Name/Number	Agua Mansa
P.O. Number	7210135D1
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	Cr VI 7199	Title 22 Metals 6010/7000	Dioxins 1613	PCBs 8082									
1	MSA-LT-4-10'	7/23	1015	S	2/ 8oz. jar	X	X	X											
2	MSA-LT-4-15'	7/23	1020		1/ 8oz jar	X													
3	MSA-LT-3-1'	7/23	1050		2/ 8oz. jar		X	X											
4	MSA-LT-3-5'	7/23	1055		2/ 8oz. jar		X	X											
5	MSA-LT-3-10'	7/23	1100		2/ 8oz. jar		X	X											
6	MSA-LT-2-1'		1135		2/ 8oz jar		X	X		X									
7	MSA-LT-2-5'		1140		2/ 8oz jar	X	X	X		X									
8	MSA-LT-2-10'		1150		2/ 8oz. jar	X	X	X											
9	MSA-LT-2-15'		1155		1/ 8oz jar	X													
10	MSA-LT-1-1'	↓	1215	↓	2/ 8oz. jar		X	X											

REQUESTED ANALYSIS

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	2.5 °C MW	

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/24/18
TIME: 1035

RECEIVED BY
Signature: M Walczuch
Print: M Walczuch
Company: PAL
DATE: 7/24/18
TIME: 1035

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3413

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 3 of 3

PAL WO#: P807022

Client Name	LANGAN
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Title 22 Metals 6010/7000
1	MSA-LT-1-5'	7/23	1220	S	2/ 8oz. jar	X	X
2	MSA-LT-1-10'	7/23	1225	S	2/ 8 oz. jar	X	X
3	VL-LT-1-1'	7/23	1400	S	2/ 8oz. jar	X	X
4	VL-LT-1-5'	7/23	~~1420~~ 1402	S	2/ 8oz jar	X	X
5	VL-LT-1-10'	7/23	~~1425~~ 1405	S	2/ 8oz. jar	X	X
6							
7							
8							
9							
10							

G-3414

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	2.5°C MW	

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/24/18
TIME: 1035

RECEIVED BY
Signature: MValenzuela
Print: MValenzuela
Company: PAL
DATE: 7/24/18
TIME: 1035

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL WO#: P807023

Client Name	Metro
Address	1940 Century Park East, Los Angeles, Ca
	TRC Solutions
Project Manager	Stephanie Wernette
Email	SWernette@TRCsolutions.com
Phone	949-910-8340
Project Name/Number	1940 Century Park East / 194046.0000
P.O. Number	194046.0000
Sampled By	Jason Smith

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Carbon Chain (8015)	Full Scan VOC (8260)	Title 22 Metals
1	ESB-1 d 5	7/24/18	1205	S	1/G/NA	X	X	X
2	ESB-1 d 10	7/24/18	1210	S	1/G/NA	X	X	X
3								
4								
5								
6								
7								
8								
9								
10								

REQUESTED ANALYSIS

PAL Containers used:	Yes	(No)	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	5 day	(24)	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	1.6°C MV	

RELINQUISHED BY

Signature: [signature]
Print: Jason Smith
Company: TRC Solutions
DATE: 7/24/18
TIME: 1400

RECEIVED BY

Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/24/18
TIME: 1400

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3415

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807022

Cooler 1 OF 1

Client Langan

Date Received: 7/24/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	2.5	0.0	2.5	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED ⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	☐	☒	☐
All samples listed on COC(s) are present	☒	☐	☐
All sample info on containers are consistent with sample info on COC(s)	☒	☐	☐
Correct containers for analyses requested	☒	☐	☐
Sufficient volume for analyses requested	☒	☐	☐
Proper preservation chemical(s) noted on COC and/or sample container	☒	☐	☐
All samples received within method holding time	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm	☐	☐	☒

NOTES

MSA-LT-2-10' & MSA-LT-1-1' one jar each had water in them from cooler Ice.

Initials	Date	Initials	Date
KLJ	7/24/18		

Performance Analytical Laboratories, Inc.

ELAP 2960

August 02, 2018

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Agua Mansa

Work Order: P807022

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/24/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 37

Qualifiers and Definitions 45

Chain of Custody PDFs 46

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807022-01	GCP-LT-10-1'		Solid	07/23/2018	07/24/2018
P807022-02	GCP-LT-10-5'		Solid	07/23/2018	07/24/2018
P807022-03	GCP-LT-10-10'		Solid	07/23/2018	07/24/2018
P807022-04	GCP-LT-10-15'		Solid	07/23/2018	07/24/2018
P807022-05	GCP-LT-11-1'		Solid	07/23/2018	07/24/2018
P807022-06	GCP-LT-11-5'		Solid	07/23/2018	07/24/2018
P807022-07	GCP-LT-11-10'		Solid	07/23/2018	07/24/2018
P807022-08	GCP-LT-11-15'		Solid	07/23/2018	07/24/2018
P807022-09	MSA-LT-4-1'		Solid	07/23/2018	07/24/2018
P807022-10	MSA-LT-4-5'		Solid	07/23/2018	07/24/2018
P807022-11	MSA-LT-4-10'		Solid	07/23/2018	07/24/2018
P807022-12	MSA-LT-4-15'		Solid	07/23/2018	07/24/2018
P807022-13	MSA-LT-3-1'		Solid	07/23/2018	07/24/2018
P807022-14	MSA-LT-3-5'		Solid	07/23/2018	07/24/2018
P807022-15	MSA-LT-3-10'		Solid	07/23/2018	07/24/2018
P807022-16	MSA-LT-2-1'		Solid	07/23/2018	07/24/2018
P807022-17	MSA-LT-2-5'		Solid	07/23/2018	07/24/2018
P807022-18	MSA-LT-2-10'		Solid	07/23/2018	07/24/2018
P807022-19	MSA-LT-2-15'		Solid	07/23/2018	07/24/2018
P807022-20	MSA-LT-1-1'		Solid	07/23/2018	07/24/2018
P807022-21	MSA-LT-1-5'		Solid	07/23/2018	07/24/2018
P807022-22	MSA-LT-1-10'		Solid	07/23/2018	07/24/2018
P807022-23	VL-LT-1-1'		Solid	07/23/2018	07/24/2018
P807022-24	VL-LT-1-5'		Solid	07/23/2018	07/24/2018
P807022-25	VL-LT-1-10'		Solid	07/23/2018	07/24/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-10-1' **P807022-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	ND	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**24.7**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**6.78**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**3.42**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**5.59**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**2.24**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**5.66**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**12.9**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**14.3**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193765)							
PCB-1016	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/29/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-10-1' (Continued) **P807022-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193765) (Continued)							
Surrogate: Decachlorobiphenyl DCB (SUR)	69%			50-150	07/29/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-10-5' **P807022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**3.41**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**30.0**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**10.5**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**4.93**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**6.18**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**3.61**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**7.67**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**21.5**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**18.2**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	95.7%			60-140	07/27/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-10-5' (Continued) **P807022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193827) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193765)							
PCB-1016	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	84%			50-150	07/29/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-10-10' **P807022-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**4.00**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**37.7**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**12.9**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**6.39**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**6.97**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**3.46**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**10.1**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**27.2**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**25.4**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	93.6%			60-140	07/27/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-10-10' (Continued) **P807022-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193827) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Sample: GCP-LT-10-15' **P807022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	95.5%			60-140	07/27/2018	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-11-1' **P807022-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**1.85**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**27.3**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**7.97**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**4.09**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**6.56**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**8.60**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**6.34**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**14.0**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**22.8**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193765)							
PCB-1016	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/29/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-11-1' (Continued) **P807022-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193765) (Continued)							
Surrogate: Decachlorobiphenyl DCB (SUR)	79%			50-150	07/29/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-11-5' **P807022-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**3.83**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**35.4**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**12.5**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**6.12**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**6.68**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**3.37**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**8.94**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**26.4**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**20.6**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/27/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	92.0%			60-140	07/27/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-11-5' (Continued) **P807022-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193827) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193765)							
PCB-1016	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	87%			50-150	07/29/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-11-10' **P807022-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**2.86**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**24.6**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**8.74**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**4.51**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**6.27**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**2.37**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**6.50**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**19.8**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**13.9**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	95.6%			60-140	07/28/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-11-10' (Continued) **P807022-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193827) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Sample: GCP-LT-11-15' **P807022-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	97.4%			60-140	07/28/2018	EPA 8015B (M)	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-4-1' **P807022-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**20.3**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**96.4**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	**0.76**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**29.4**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**14.3**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**24.0**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**12.9**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	**2.07**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**23.0**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**46.2**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**59.9**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193827)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193765)							
PCB-1016	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/29/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-4-1' (Continued) **P807022-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193765) (Continued)							
Surrogate: Decachlorobiphenyl DCB (SUR)	69%			50-150	07/29/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-4-5' **P807022-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**19.3**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**94.9**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**29.2**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**14.0**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**23.4**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**8.70**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	**1.78**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**22.6**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**47.2**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**57.2**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	97.3%			60-140	07/28/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-4-5' (Continued) **P807022-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193828) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193765)							
PCB-1016	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	78%			50-150	07/29/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-4-10' **P807022-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**5.69**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**69.4**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**26.0**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**10.9**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**19.0**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**8.44**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	**1.46**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**21.0**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**38.8**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**49.8**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	94.0%			60-140	07/28/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-4-10' (Continued) **P807022-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193828) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Sample: MSA-LT-4-15' **P807022-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	95.1%			60-140	07/28/2018	EPA 8015B (M)	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-3-1' **P807022-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**20.5**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**86.7**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**27.9**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**12.2**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**21.2**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**7.70**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	**1.16**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**21.9**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**43.0**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**54.1**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-3-5' **P807022-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**23.4**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**108**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	**0.62**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**33.2**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**16.6**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**27.7**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**10.9**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	**1.82**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**25.7**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**53.6**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**66.9**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-3-10' **P807022-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**10.7**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**67.2**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	**0.51**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**21.8**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**9.80**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**15.8**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**7.68**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	**1.54**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**15.6**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**37.3**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**43.7**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-2-1' **P807022-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**6.97**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**38.4**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**11.9**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**5.84**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**8.75**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**3.49**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**8.59**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**24.1**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**24.6**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193765)							
PCB-1016	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/29/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-2-1' (Continued) **P807022-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193765) (Continued)							
Surrogate: Decachlorobiphenyl DCB (SUR)	75%			50-150	07/29/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-2-5' **P807022-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193810)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**2.32**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**74.1**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**31.0**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**12.2**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**21.2**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**6.75**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**27.2**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**39.1**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**51.2**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	94.5%			60-140	07/28/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-2-5' (Continued) **P807022-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193828) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193905)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	
Polychlorinated Biphenyls_Subcontract (Batch ID: QC1193765)							
PCB-1016	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1221	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1232	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1242	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1248	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1254	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1260	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1262	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
PCB-1268	ND	ug/Kg	1	50	07/29/2018	EPA 8082	
Surrogate: Decachlorobiphenyl DCB (SUR)	86%			50-150	07/29/2018	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-2-10' **P807022-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193811)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**3.58**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**42.4**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	**0.54**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**11.9**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**5.41**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**9.15**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**9.00**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	**2.70**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**9.78**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**20.2**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**25.5**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	99.3%			60-140	07/28/2018	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-2-10' (Continued) **P807022-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: QC1193828) (Continued)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193906)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Sample: MSA-LT-2-15' **P807022-19 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B8G0024)							
C7-C8	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	2.50	07/28/2018	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	91.8%			60-140	07/28/2018	EPA 8015B (M)	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-1-1' **P807022-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193811)							
Antimony	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Arsenic	**7.77**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Barium	**70.1**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	**0.62**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**20.3**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**8.31**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**14.0**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**10.2**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	**1.77**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Nickel	**14.2**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/30/2018	EPA 6010B	
Vanadium	**32.4**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**38.8**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193906)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-1-5' **P807022-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193811)							
Antimony	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Arsenic	**5.22**	mg/Kg	1	1	07/31/2018	EPA 6010B	
Barium	**72.9**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**24.1**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**9.76**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**16.7**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**5.61**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	**1.32**	mg/Kg	1	1	07/31/2018	EPA 6010B	
Nickel	**20.0**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Vanadium	**37.7**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**37.3**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193906)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-1-10' **P807022-22 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193811)							
Antimony	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Arsenic	**2.04**	mg/Kg	1	1	07/31/2018	EPA 6010B	
Barium	**34.0**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**10.3**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**4.80**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**8.23**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**6.87**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/31/2018	EPA 6010B	
Nickel	**7.98**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Vanadium	**21.0**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**18.8**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193906)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VL-LT-1-1' **P807022-23 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193811)							
Antimony	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Arsenic	**18.6**	mg/Kg	1	1	07/31/2018	EPA 6010B	
Barium	**74.2**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**24.4**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**11.4**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**18.7**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**7.06**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/31/2018	EPA 6010B	
Nickel	**18.6**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Vanadium	**40.8**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**48.7**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193906)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VL-LT-1-5' **P807022-24 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193811)							
Antimony	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Arsenic	**6.09**	mg/Kg	1	1	07/31/2018	EPA 6010B	
Barium	**62.2**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	**0.84**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**20.0**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**7.83**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**13.4**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**12.7**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	**1.07**	mg/Kg	1	1	07/31/2018	EPA 6010B	
Nickel	**12.8**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Vanadium	**32.0**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**34.5**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193906)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VL-LT-1-10' **P807022-25 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: QC1193811)							
Antimony	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Arsenic	**10.5**	mg/Kg	1	1	07/31/2018	EPA 6010B	
Barium	**67.4**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Beryllium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Cadmium	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Chromium	**23.7**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Cobalt	**11.2**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Copper	**18.9**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Lead	**6.19**	mg/Kg	1	1	07/30/2018	EPA 6010B	
Molybdenum	ND	mg/Kg	1	1	07/31/2018	EPA 6010B	
Nickel	**18.0**	mg/Kg	1	1.5	07/30/2018	EPA 6010B	
Selenium	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Silver	ND	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Thallium	ND	mg/Kg	1	3	07/31/2018	EPA 6010B	
Vanadium	**40.4**	mg/Kg	1	0.5	07/30/2018	EPA 6010B	
Zinc	**49.3**	mg/Kg	1	5	07/30/2018	EPA 6010B	
Hexavalent Chromium_Subcontract (Batch ID: QC1193828)							
Hexavalent Chromium	ND	ug/Kg	1	400	07/31/2018	EPA 7199	
Mercury_Subcontract (Batch ID: QC1193906)							
Mercury	ND	mg/Kg	1	0.14	07/31/2018	EPA 7471A	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193810										
LCS (QC1193810LCS1)		**Source: NA**		Prepared: 07/24/2018 Analyzed: 07/30/2018						
Copper	93.5		1	mg/Kg	100	NA	94	80-120		
Vanadium	95.0		0.5	mg/Kg	100	NA	95	80-120		
Thallium	91.2		3	mg/Kg	100	NA	91	80-120		
Silver	95.9		0.5	mg/Kg	100	NA	96	80-120		
Selenium	86.7		3	mg/Kg	100	NA	87	80-120		
Nickel	95.3		1.5	mg/Kg	100	NA	95	80-120		
Lead	94.9		1	mg/Kg	100	NA	95	80-120		
Cobalt	96.5		0.5	mg/Kg	100	NA	97	80-120		
Chromium	96.2		1	mg/Kg	100	NA	96	80-120		
Cadmium	92.9		0.5	mg/Kg	100	NA	93	80-120		
Beryllium	93.5		0.5	mg/Kg	100	NA	94	80-120		
Barium	96.3		1	mg/Kg	100	NA	96	80-120		
Arsenic	91.0		1	mg/Kg	100	NA	91	80-120		
Antimony	97.0		3	mg/Kg	100	NA	97	80-120		
Molybdenum	93.6		1	mg/Kg	100	NA	94	80-120		
Zinc	95.6		5	mg/Kg	100	NA	96	80-120		
Method Blank (QC1193810MB1)		**Source: NA**		Prepared: 07/24/2018 Analyzed: 07/30/2018						
Antimony	ND		3	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		
Vanadium	ND		0.5	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Copper	ND		1	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193810 (Continued)										
MS (QC1193810MS1)		**Source: NA**			Prepared: 07/24/2018 Analyzed: 07/30/2018					
Selenium	50.1	M	3	mg/Kg	100	ND	50	75-125		
Beryllium	94.0		0.5	mg/Kg	100	ND	94	75-125		
Zinc	109		5	mg/Kg	100	14.3	95	75-125		
Vanadium	112		0.5	mg/Kg	100	12.9	99	75-125		
Silver	94.9		0.5	mg/Kg	100	ND	95	75-125		
Nickel	98.8		1.5	mg/Kg	100	5.66	93	75-125		
Molybdenum	90.8		1	mg/Kg	100	0.20	91	75-125		
Lead	91.8		1	mg/Kg	100	2.24	90	75-125		
Copper	99.3		1	mg/Kg	100	5.59	94	75-125		
Cobalt	99.3		0.5	mg/Kg	100	3.42	96	75-125		
Chromium	104		1	mg/Kg	100	6.78	97	75-125		
Thallium	86.9		3	mg/Kg	100	ND	87	75-125		
Barium	122		1	mg/Kg	100	24.7	97	75-125		
Cadmium	92.6		0.5	mg/Kg	100	ND	93	75-125		
Arsenic	92.2		1	mg/Kg	100	0.95	91	75-125		
Antimony	61.4	M	3	mg/Kg	100	ND	61	75-125		
MSD (QC1193810MSD1)		**Source: NA**			Prepared: 07/24/2018 Analyzed: 07/30/2018					
Barium	119		1	mg/Kg	100	24.7	94	75-125	2.5	20
Arsenic	93.6		1	mg/Kg	100	0.95	93	75-125	1.5	20
Antimony	61.7	M	3	mg/Kg	100	ND	62	75-125	0.5	20
Cobalt	96.5		0.5	mg/Kg	100	3.42	93	75-125	2.9	20
Copper	97.6		1	mg/Kg	100	5.59	92	75-125	1.7	20
Zinc	107		5	mg/Kg	100	14.3	93	75-125	1.9	20
Cadmium	91.0		0.5	mg/Kg	100	ND	91	75-125	1.7	20
Vanadium	110		0.5	mg/Kg	100	12.9	97	75-125	1.8	20
Thallium	87.4		3	mg/Kg	100	ND	87	75-125	0.6	20
Silver	94.5		0.5	mg/Kg	100	ND	95	75-125	0.4	20
Selenium	41.1	M	3	mg/Kg	100	ND	41	75-125	19.7	20
Nickel	97.9		1.5	mg/Kg	100	5.66	92	75-125	0.9	20
Molybdenum	91.9		1	mg/Kg	100	0.20	92	75-125	1.2	20
Lead	94.0		1	mg/Kg	100	2.24	92	75-125	2.4	20
Chromium	102		1	mg/Kg	100	6.78	95	75-125	1.9	20
Beryllium	92.6		0.5	mg/Kg	100	ND	93	75-125	1.5	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193811										
LCS (QC1193811LCS1)		**Source: NA**		Prepared: 07/27/2018 Analyzed: 07/30/2018						
Lead	92.5		1	mg/Kg	100	NA	93	80-120		
Copper	94.0		1	mg/Kg	100	NA	94	80-120		
Cobalt	95.8		0.5	mg/Kg	100	NA	96	80-120		
Chromium	94.3		1	mg/Kg	100	NA	94	80-120		
Cadmium	90.4		0.5	mg/Kg	100	NA	90	80-120		
Beryllium	93.1		0.5	mg/Kg	100	NA	93	80-120		
Barium	96.2		1	mg/Kg	100	NA	96	80-120		
Antimony	94.3		3	mg/Kg	100	NA	94	80-120		
Arsenic	87.2		1	mg/Kg	100	NA	87	80-120		
Molybdenum	90.2		1	mg/Kg	100	NA	90	80-120		
Zinc	91.7		5	mg/Kg	100	NA	92	80-120		
Nickel	94.0		1.5	mg/Kg	100	NA	94	80-120		
Selenium	80.4		3	mg/Kg	100	NA	80	80-120		
Silver	96.2		0.5	mg/Kg	100	NA	96	80-120		
Vanadium	95.6		0.5	mg/Kg	100	NA	96	80-120		
Thallium	89.7		3	mg/Kg	100	NA	90	80-120		
Method Blank (QC1193811MB1)		**Source: NA**		Prepared: 07/27/2018 Analyzed: 07/30/2018						
Antimony	ND		3	mg/Kg		NA		-		
Arsenic	ND		1	mg/Kg		NA		-		
Barium	ND		1	mg/Kg		NA		-		
Beryllium	ND		0.5	mg/Kg		NA		-		
Cadmium	ND		0.5	mg/Kg		NA		-		
Chromium	ND		1	mg/Kg		NA		-		
Cobalt	ND		0.5	mg/Kg		NA		-		
Copper	ND		1	mg/Kg		NA		-		
Zinc	ND		5	mg/Kg		NA		-		
Lead	ND		1	mg/Kg		NA		-		
Vanadium	ND		0.5	mg/Kg		NA		-		
Thallium	ND		3	mg/Kg		NA		-		
Silver	ND		0.5	mg/Kg		NA		-		
Selenium	ND		3	mg/Kg		NA		-		
Nickel	ND		1.5	mg/Kg		NA		-		
Molybdenum	ND		1	mg/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193811 (Continued)										
MS (QC1193811MS1)		**Source: NA**		Prepared: 07/27/2018 Analyzed: 07/30/2018						
Chromium	106		1	mg/Kg	100	11.9	94	75-125		
Cobalt	93.2		0.5	mg/Kg	100	5.41	88	75-125		
Copper	100		1	mg/Kg	100	9.15	91	75-125		
Lead	94.2		1	mg/Kg	100	9.00	85	75-125		
Molybdenum	88.3		1	mg/Kg	100	2.70	86	75-125		
Nickel	97.2		1.5	mg/Kg	100	9.78	87	75-125		
Selenium	15.5	M	3	mg/Kg	100	ND	16	75-125		
Thallium	79.4		3	mg/Kg	100	ND	79	75-125		
Zinc	113		5	mg/Kg	100	25.5	88	75-125		
Cadmium	84.5		0.5	mg/Kg	100	0.54	84	75-125		
Silver	93.5		0.5	mg/Kg	100	0.33	93	75-125		
Vanadium	119		0.5	mg/Kg	100	20.2	99	75-125		
Beryllium	87.4		0.5	mg/Kg	100	ND	87	75-125		
Barium	135		1	mg/Kg	100	42.4	93	75-125		
Antimony	32.5	M	3	mg/Kg	100	ND	33	75-125		
Arsenic	91.2		1	mg/Kg	100	3.58	88	75-125		
MSD (QC1193811MSD1)		**Source: NA**		Prepared: 07/27/2018 Analyzed: 07/30/2018						
Cadmium	81.7		0.5	mg/Kg	100	0.54	81	75-125	3.4	20
Zinc	109		5	mg/Kg	100	25.5	84	75-125	3.6	20
Antimony	30.0	M	3	mg/Kg	100	ND	30	75-125	8	20
Arsenic	88.3		1	mg/Kg	100	3.58	85	75-125	3.2	20
Beryllium	89.4		0.5	mg/Kg	100	ND	89	75-125	2.3	20
Chromium	102		1	mg/Kg	100	11.9	90	75-125	3.8	20
Cobalt	89.5		0.5	mg/Kg	100	5.41	84	75-125	4.1	20
Copper	96.6		1	mg/Kg	100	9.15	87	75-125	3.5	20
Lead	90.1		1	mg/Kg	100	9.00	81	75-125	4.4	20
Molybdenum	84.3		1	mg/Kg	100	2.70	82	75-125	4.6	20
Nickel	93.5		1.5	mg/Kg	100	9.78	84	75-125	3.9	20
Selenium	8.11	M	3	mg/Kg	100	ND	8	75-125	62.6	20
Silver	88.4		0.5	mg/Kg	100	0.33	88	75-125	5.6	20
Thallium	76.8		3	mg/Kg	100	ND	77	75-125	3.3	20
Vanadium	114		0.5	mg/Kg	100	20.2	94	75-125	4.3	20
Barium	130		1	mg/Kg	100	42.4	88	75-125	3.8	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8G0024										
Blank (B8G0024-BLK1)				Prepared: 07/25/2018 Analyzed: 07/27/2018						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.84			mg/kg	2.00		92.2	60-140		
LCS (B8G0024-BS1)				Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	43.7		2.50	mg/kg	50.0		87.3	70-130		
Surrogate: n-Octacosane (c28)	1.74			mg/kg	2.00		87.0	60-140		
LCS Dup (B8G0024-BSD1)				Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	46.4		2.50	mg/kg	50.0		92.7	70-130	6.00	20
Surrogate: n-Octacosane (c28)	1.85			mg/kg	2.00		92.4	60-140		
Matrix Spike (B8G0024-MS1)		**Source: P807020-28**		Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	39.7		2.50	mg/kg	50.0	ND	79.5	70-130		
Surrogate: n-Octacosane (c28)	1.81			mg/kg	2.00		90.7	60-140		
Matrix Spike Dup (B8G0024-MSD1)		**Source: P807020-28**		Prepared: 07/25/2018 Analyzed: 07/27/2018						
Diesel	46.3		2.50	mg/kg	50.0	ND	92.5	70-130	15.2	20
Surrogate: n-Octacosane (c28)	1.89			mg/kg	2.00		94.7	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193827										
Duplicate (QC1193827DUP1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	310		400	ug/Kg	0	309		-	0.3	20
LCS (QC1193827LCS1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	38200		400	ug/Kg	40000	NA	96	80-120		
Method Blank (QC1193827MB1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	ND		400	ug/Kg		NA		-		
MS (QC1193827MS2)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	41000		400	ug/Kg	40000	309	102	75-125		
Hexavalent Chromium	40700		400	ug/Kg	40000	309	101	75-125		
Batch: QC1193828										
Duplicate (QC1193828DUP1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	ND		400	ug/Kg		ND		-		20
LCS (QC1193828LCS1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	41700		400	ug/Kg	40000	NA	104	80-120		
Method Blank (QC1193828MB1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	ND		400	ug/Kg		NA		-		
MS (QC1193828MS1)		**Source: NA**		Prepared & Analyzed: 07/28/2018						
Hexavalent Chromium	43500		400	ug/Kg	40000	ND	109	75-125		
Hexavalent Chromium	43600		400	ug/Kg	40000	ND	109	75-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193905										
LCS (QC1193905LCS1)		**Source: NA**		Prepared: 07/30/2018 Analyzed: 07/31/2018						
Mercury	0.89		0.14	mg/Kg	0.83	NA	107	80-120		
Method Blank (QC1193905MB1)		**Source: NA**		Prepared: 07/30/2018 Analyzed: 07/31/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193905MS1)		**Source: NA**		Prepared: 07/30/2018 Analyzed: 07/31/2018						
Mercury	0.79		0.14	mg/Kg	0.83	ND	95	75-125		
MSD (QC1193905MSD1)		**Source: NA**		Prepared: 07/30/2018 Analyzed: 07/31/2018						
Mercury	0.96		0.14	mg/Kg	0.83	ND	116	75-125	19.4	20
Batch: QC1193906										
LCS (QC1193906LCS1)		**Source: NA**		Prepared: 07/30/2018 Analyzed: 07/31/2018						
Mercury	0.81		0.14	mg/Kg	0.83	NA	98	80-120		
Method Blank (QC1193906MB1)		**Source: NA**		Prepared: 07/30/2018 Analyzed: 07/31/2018						
Mercury	ND		0.14	mg/Kg		NA		-		
MS (QC1193906MS1)		**Source: NA**		Prepared: 07/30/2018 Analyzed: 07/31/2018						
Mercury	1.07		0.14	mg/Kg	0.83	0.04	124	75-125		
MSD (QC1193906MSD1)		**Source: NA**		Prepared: 07/30/2018 Analyzed: 07/31/2018						
Mercury	1.01		0.14	mg/Kg	0.83	0.04	117	75-125	5.8	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Polychlorinated Biphenyls_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1193765										
LCS (QC1193765LCS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
PCB-1260	420		50	ug/Kg	500	NA	84	70-130		
PCB-1016	480		50	ug/Kg	500	NA	96	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	37.78			ug/Kg	50	NA	76	50-150		
Method Blank (QC1193765MB1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
PCB-1221	ND		50	ug/Kg		NA		-		
PCB-1268	ND		50	ug/Kg		NA		-		
PCB-1262	ND		50	ug/Kg		NA		-		
PCB-1260	ND		50	ug/Kg		NA		-		
PCB-1254	ND		50	ug/Kg		NA		-		
PCB-1248	ND		50	ug/Kg		NA		-		
PCB-1232	ND		50	ug/Kg		NA		-		
PCB-1016	ND		50	ug/Kg		NA		-		
PCB-1242	ND		50	ug/Kg		NA		-		
Surrogate: Decachlorobiphenyl DCB (SUR)	37.34			ug/Kg	50	NA	75	50-150		
MS (QC1193765MS1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
PCB-1016	360		50	ug/Kg	500	ND	72	70-130		
PCB-1260	310	M	50	ug/Kg	500	ND	62	70-130		
Surrogate: Decachlorobiphenyl DCB (SUR)	29.58			ug/Kg	50	NA	59	50-150		
MSD (QC1193765MSD1)		**Source: NA**		Prepared & Analyzed: 07/26/2018						
PCB-1260	440	M	50	ug/Kg	500	ND	88	70-130	34.7	20
PCB-1016	540	M	50	ug/Kg	500	ND	108	70-130	40	20
Surrogate: Decachlorobiphenyl DCB (SUR)	37.67			ug/Kg	50	NA	75	50-150		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 3

PAL WO#: A607022

Client Name	Langan
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	7210135O1
Sampled By	Kathleen Lo

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbonchain 8015	CrVI 7199	Title 22 Metals 6010/7000	Dioxins 1613	PCBs 8082
1	GCP-LT-10-1'	7/23	0750	S	2/8oz.jar		X	X	X	X
2	GCP-LT-10-5'	7/23	0800	S	2/8oz.jar	X	X	X	X	X
3	GCP-LT-10-10'	7/23	0807	S	2/8oz.jar	X	X	X	X	
4	GCP-LT-10-15'	7/23	0813	S	1/8oz.jar	X				
5	GCP-LT-11-1'	7/23	0843	S	2/8oz.jar		X	X	X	X
6	GCP-LT-11-5'	7/23	0845	S	2/8oz.jar	X	X	X	X	X
7	GCP-LT-11-10'	7/23	0850	S	2/8oz.jar	X	X	X	X	
8	GCP-LT-11-15'	7/23	0900	S	1/8oz.jar	X				
9	MSA-LT-4-1'	7/23	1005	S	2/8oz.jar		X	X		X
10	MSA-LT-4-5'	7/23	1010	S	2/8oz.jar	X	X	X		X

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	(STD) 5 day	RUSH 24	48	72
EDD Required - Circle one:	Yes	No		
Type of EDD:				
Reciept Temp./ Initials: (Temp recorded is not corrected)	2.5°C MV			

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/24/18
TIME: 1035

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 7/24/18
TIME: 1035

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-3462

Performance Analytical Laboratories, Inc.
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310-809-1041

CHAIN-OF-CUSTODY

page 2 of 3

PAL WO#: P807022

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	907-771-8217
Project Name/Number	Agua Mansa
P.O. Number	7210135D1
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	Cr VI 7199	Title 22 Metals 6010/7000	Dioxins 1613	PCBs 8082
1	MSA-LT-4-10'	7/23	1015	S	2/ 8oz. jar	X	X	X		
2	MSA-LT-4-15'	7/23	1020		1/ 8oz jar	X				
3	MSA-LT-3-1'	7/23	1050		2/ 8oz. jar		X	X		
4	MSA-LT-3-5'	7/23	1055		2/ 8oz. jar		X	X		
5	MSA-LT-3-10'	7/23	1100		2/ 8oz. jar		X	X		
6	MSA-LT-2-1'		1135		2/ 8oz jar		X	X		X
7	MSA-LT-2-5'		1140		2/ 8oz jar	X	X	X		X
8	MSA-LT-2-10'		1150		2/ 8oz. jar	X	X	X		
9	MSA-LT-2-15'		1155		1/ 8oz jar	X				
10	MSA-LT-1-1'	↓	1215	↓	2/ 8oz. jar		X	X		

REQUESTED ANALYSIS

G-3463

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	2.5 °C MW	

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/24/18
TIME: 1035

RECEIVED BY
Signature: M Walczuch
Print: M Walczuch
Company: PAL
DATE: 7/24/18
TIME: 1035

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P807022

Client Name	LANGAN
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Title 22 Metals 6010/7000
1	MSA-LT-1-5'	7/23	1220	S	2/ 8oz. jar	X	X
2	MSA-LT-1-10'	7/23	1225	S	2/ 8oz. jar	X	X
3	VL-LT-1-1'	7/23	1400	S	2/ 8oz. jar	X	X
4	VL-LT-1-5'	7/23	~~1400~~ 1402	S	2/ 8oz. jar	X	X
5	VL-LT-1-10'	7/23	~~1402~~ 1405	S	2/ 8oz. jar	X	X
6							
7							
8							
9							
10							

G-3464

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	2.5°C MW	

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/24/18
TIME: 1035

RECEIVED BY
Signature: MValenzuela
Print: MValenzuela
Company: PAL
DATE: 7/24/18
TIME: 1035

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

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CHAIN-OF-CUSTODY

page 1 of 1

PAL WO#: P807023

Client Name	Metro
Address	1940 Century Park East, Los Angeles, Ca
	TRC Solutions
Project Manager	Stephanie Wernette
Email	SWernette@TRCsolutions.com
Phone	949-910-8340
Project Name/Number	1940 Century Park East / 194046.0000
P.O. Number	194046.0000
Sampled By	Jason Smith

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Carbon Chain (8015)	Full Scan VOC (8260)	Title 22 Metals
1	ESB-1 d 5	7/24/18	1205	S	1/G/NA	X	X	X
2	ESB-1 d 10	7/24/18	1210	S	1/G/NA	X	X	X
3								
4								
5								
6								
7								
8								
9								
10								

REQUESTED ANALYSIS

G-3465

PAL Containers used:	Yes	(No)	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	5 day	(24)	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	1.6°C MV	

RELINQUISHED BY

Signature:
Print: Jason Smith
Company: TRC Solutions
DATE: 7/24/18
TIME: 1400

RECEIVED BY

Signature:
Print: M Valenzuela
Company: PAL
DATE: 7/24/18
TIME: 1400

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807022

Cooler 1 OF 1

Client Langan

Date Received: 7/24/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	2.5	0.0	2.5	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED ⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	☐	☒	☐
All samples listed on COC(s) are present	☒	☐	☐
All sample info on containers are consistent with sample info on COC(s)	☒	☐	☐
Correct containers for analyses requested	☒	☐	☐
Sufficient volume for analyses requested	☒	☐	☐
Proper preservation chemical(s) noted on COC and/or sample container	☒	☐	☐
All samples received within method holding time	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm	☐	☐	☒

NOTES

MSA-LT-2-10' & MSA-LT-1-1' one jar each had water in them from cooler Ice.

Initials	Date	Initials	Date
KLJ	7/24/18		

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

404862

Work Order ID: P807022

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P807022-01 Matrix: Solid Sampled: 07/23/2018 07:50			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-02 Matrix: Solid Sampled: 07/23/2018 08:00			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

Analysis	TAT	Due	Comments
Sample ID: P807022-03 **Matrix: Solid** **Sampled: 07/23/2018 08:07**			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-05 **Matrix: Solid** **Sampled: 07/23/2018 08:43**			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-06 **Matrix: Solid** **Sampled: 07/23/2018 08:45**			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-07 Matrix: Solid Sampled: 07/23/2018 08:50			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-09 Matrix: Solid Sampled: 07/23/2018 10:05			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-10 Matrix: Solid Sampled: 07/23/2018 10:10			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-11 Matrix: Solid Sampled: 07/23/2018 10:15			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-13 Matrix: Solid Sampled: 07/23/2018 10:50			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-14 Matrix: Solid Sampled: 07/23/2018 10:55			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-15 Matrix: Solid Sampled: 07/23/2018 11:00			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-16 Matrix: Solid Sampled: 07/23/2018 11:35			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-17 Matrix: Solid Sampled: 07/23/2018 11:40			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-18 Matrix: Solid Sampled: 07/23/2018 11:50			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) ~~Glass Jar, 8 oz (C)~~ MV			
Sample ID: P807022-20 Matrix: Solid Sampled: 07/23/2018 12:15			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) ~~Glass Jar, 8 oz (B)~~ MV			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-21 Matrix: Solid Sampled: 07/23/2018 12:20			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-22 Matrix: Solid Sampled: 07/23/2018 12:25			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-23 Matrix: Solid Sampled: 07/23/2018 14:00			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-24 Matrix: Solid Sampled: 07/23/2018 14:02			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-25 **Matrix: Solid** **Sampled: 07/23/2018 14:05**			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	

Containers Supplied:
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)

Released By	Date	Time	Received By	Date	Time
	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: P807022

Date Received: 7/25/18 Sampler's Name Present: ☐ Yes ☒ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 5.0 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 2.0 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 07/25/18

Performance Analytical Laboratories, Inc.

ELAP 2960

August 15, 2018

Change Order Report

Langan
32 Executive Park, Suite 130
Irvine, CA 92614-4721

Re: DTSC Riverside
Project No. : Agua Mansa
Work Order: P807022

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/24/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,

Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 9

Qualifiers and Definitions 10

Exceptions List 11

Chain of Custody PDFs 12

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807022-01	GCP-LT-10-1'		Solid	07/23/2018	07/24/2018
P807022-02	GCP-LT-10-5'		Solid	07/23/2018	07/24/2018
P807022-03	GCP-LT-10-10'		Solid	07/23/2018	07/24/2018
P807022-05	GCP-LT-11-1'		Solid	07/23/2018	07/24/2018
P807022-06	GCP-LT-11-5'		Solid	07/23/2018	07/24/2018
P807022-07	GCP-LT-11-10'		Solid	07/23/2018	07/24/2018
P807022-09	MSA-LT-4-1'		Solid	07/23/2018	07/24/2018
P807022-10	MSA-LT-4-5'		Solid	07/23/2018	07/24/2018
P807022-11	MSA-LT-4-10'		Solid	07/23/2018	07/24/2018
P807022-13	MSA-LT-3-1'		Solid	07/23/2018	07/24/2018
P807022-14	MSA-LT-3-5'		Solid	07/23/2018	07/24/2018
P807022-15	MSA-LT-3-10'		Solid	07/23/2018	07/24/2018
P807022-16	MSA-LT-2-1'		Solid	07/23/2018	07/24/2018
P807022-17	MSA-LT-2-5'		Solid	07/23/2018	07/24/2018
P807022-18	MSA-LT-2-10'		Solid	07/23/2018	07/24/2018
P807022-20	MSA-LT-1-1'		Solid	07/23/2018	07/24/2018
P807022-21	MSA-LT-1-5'		Solid	07/23/2018	07/24/2018
P807022-22	MSA-LT-1-10'		Solid	07/23/2018	07/24/2018
P807022-23	VL-LT-1-1'		Solid	07/23/2018	07/24/2018
P807022-24	VL-LT-1-5'		Solid	07/23/2018	07/24/2018
P807022-25	VL-LT-1-10'		Solid	07/23/2018	07/24/2018

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-10-1' **P807022-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**9.34**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-10-5' **P807022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0018)							
pH	**9.30**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-10-10' **P807022-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**7.78**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-11-1' **P807022-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**6.41**	pH Units	1		08/14/2018	EPA 9045	

Sample: GCP-LT-11-5' **P807022-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**6.87**	pH Units	1		08/14/2018	EPA 9045	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: GCP-LT-11-10' **P807022-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**6.99**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-4-1' **P807022-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**6.85**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-4-5' **P807022-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**6.74**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-4-10' **P807022-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**6.94**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-3-1' **P807022-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**7.54**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-3-5' **P807022-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**7.98**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-3-10' **P807022-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**7.80**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-2-1' **P807022-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**7.91**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-2-5' **P807022-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**8.49**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-2-10' **P807022-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**6.65**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: MSA-LT-1-1' **P807022-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**7.62**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-1-5' **P807022-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**8.33**	pH Units	1		08/14/2018	EPA 9045	

Sample: MSA-LT-1-10' **P807022-22 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**8.15**	pH Units	1		08/14/2018	EPA 9045	

Sample: VL-LT-1-1' **P807022-23 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**7.97**	pH Units	1		08/14/2018	EPA 9045	

Sample: VL-LT-1-5' **P807022-24 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**7.83**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VL-LT-1-10' **P807022-25 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
pH by 9045 (Batch ID: B8H0019)							
pH	**8.13**	pH Units	1		08/14/2018	EPA 9045	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

pH by 9045

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8H0018										
Duplicate (B8H0018-DUP1)		**Source: P807020-15**		Prepared: 08/13/2018 Analyzed: 08/14/2018						
pH	9.19			pH Units		9.34			1.62	20
Batch: B8H0019										
Duplicate (B8H0019-DUP1)		**Source: P807022-25**		Prepared: 08/13/2018 Analyzed: 08/14/2018						
pH	8.22			pH Units		8.13			1.10	20

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			No subcontracted Samples found in data set.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 3

PAL WO#: A607022

Client Name	Langan
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	7210135O1
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	CrVI 7199	Title 22 Metals 6010/7000	Dioxins 1613	PCBs 8082
1	GCP-LT-10-1'	7/23	0750	S	2/8oz.jar		X	X	X	X
2	GCP-LT-10-5'	7/23	0800	S	2/8oz.jar	X	X	X	X	X
3	GCP-LT-10-10'	7/23	0807	S	2/8oz.jar	X	X	X	X	
4	GCP-LT-10-15'	7/23	0813	S	1/8oz.jar	X				
5	GCP-LT-11-1'	7/23	0843	S	2/8oz.jar		X	X	X	X
6	GCP-LT-11-5'	7/23	0845	S	2/8oz.jar	X	X	X	X	X
7	GCP-LT-11-10'	7/23	0850	S	2/8oz.jar	X	X	X	X	
8	GCP-LT-11-15'	7/23	0900	S	1/8oz.jar	X				
9	MSA-LT-4-1'	7/23	1005	S	2/8oz.jar		X	X		X
10	MSA-LT-4-5'	7/23	1010	S	2/8oz.jar	X	X	X		X

REQUESTED ANALYSIS

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	2.5°C MV	

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/24/18
TIME: 1035

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 7/24/18
TIME: 1035

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-3486

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P807022

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	907-771-8217
Project Name/Number	Agua Mansa
P.O. Number	7210135D1
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	Cr VI 7199	Title 22 Metals 6010/7000	Dioxins 1613	PCBs 8082
1	MSA-LT-4-10'	7/23	1015	S	2/ 8oz. jar	X	X	X		
2	MSA-LT-4-15'	7/23	1020		1/ 8oz jar	X				
3	MSA-LT-3-1'	7/23	1050		2/ 8oz. jar		X	X		
4	MSA-LT-3-5'	7/23	1055		2/ 8oz. jar		X	X		
5	MSA-LT-3-10'	7/23	1100		2/ 8oz. jar		X	X		
6	MSA-LT-2-1'		1135		2/ 8oz jar		X	X		X
7	MSA-LT-2-5'		1140		2/ 8oz jar	X	X	X		X
8	MSA-LT-2-10'		1150		2/ 8oz. jar	X	X	X		
9	MSA-LT-2-15'		1155		1/ 8oz jar	X				
10	MSA-LT-1-1'		1215		2/ 8oz. jar		X	X		

REQUESTED ANALYSIS

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	2.5 °C MW	

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/24/18
TIME: 1035

RECEIVED BY
Signature: M Walczuch
Print: M Walczuch
Company: PAL
DATE: 7/24/18
TIME: 1035

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3487

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 3 of 3

PAL WO#: P807022

Client Name	LANGAN
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	REQUESTED ANALYSIS: Title 22 Metals 6010/7000
1	MSA-LT-1-5'	7/23	1220	S	2/ 8oz. jar	X	X
2	MSA-LT-1-10'	7/23	1225	S	2/ 8 oz. jar	X	X
3	VL-LT-1-1'	7/23	1400	S	2/ 8oz. jar	X	X
4	VL-LT-1-5'	7/23	~~1320~~ 1402	S	2/ 8oz jar	X	X
5	VL-LT-1-10'	7/23	~~1325~~ 1405	S	2/ 8oz. jar	X	X
6							
7							
8							
9							
10							

G-3488

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: Yes / No

Type of EDD:

Reciept Temp./ Initials: (Temp recorded is not corrected) 2.5°C MW

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/24/18
TIME: 1035

RECEIVED BY
Signature: MValenzuela
Print: MValenzuela
Company: PAL
DATE: 7/24/18
TIME: 1035

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL WO#: P807023

Client Name	Metro
Address	1940 Century Park East, Los Angeles, Ca
	TRC Solutions
Project Manager	Stephanie Wernette
Email	SWernette@TRCsolutions.com
Phone	949-910-8340
Project Name/Number	1940 Century Park East / 194046.0000
P.O. Number	194046.0000
Sampled By	Jason Smith

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Carbon Chain (8015)	Full Scan VOC (8260)	Title 22 Metals
1	ESB-1 d 5	7/24/18	1205	S	1/G/NA	X	X	X
2	ESB-1 d 10	7/24/18	1210	S	1/G/NA	X	X	X
3								
4								
5								
6								
7								
8								
9								
10								

REQUESTED ANALYSIS

G-3489

PAL Containers used:	Yes	(No)	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	5 day	(24)	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	1.6°C MV	

RELINQUISHED BY

Signature: [signature]
Print: Jason Smith
Company: TRC Solutions
DATE: 7/24/18
TIME: 1400

RECEIVED BY

Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/24/18
TIME: 1400

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807022

Cooler 1 OF 1

Client Langan

Date Received: 7/24/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	2.5	0.0	2.5	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED ⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	☐	☒	☐
All samples listed on COC(s) are present	☒	☐	☐
All sample info on containers are consistent with sample info on COC(s)	☒	☐	☐
Correct containers for analyses requested	☒	☐	☐
Sufficient volume for analyses requested	☒	☐	☐
Proper preservation chemical(s) noted on COC and/or sample container	☒	☐	☐
All samples received within method holding time	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm	☐	☐	☒

NOTES

MSA-LT-2-10' & MSA-LT-1-1' one jar each had water in them from cooler Ice.

Initials	Date	Initials	Date
KLJ	7/24/18		

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

404862

Work Order ID: P807022

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P807022-01 Matrix: Solid Sampled: 07/23/2018 07:50			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-02 Matrix: Solid Sampled: 07/23/2018 08:00			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

Analysis	TAT	Due	Comments
Sample ID: P807022-03 **Matrix: Solid** **Sampled: 07/23/2018 08:07**			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-05 **Matrix: Solid** **Sampled: 07/23/2018 08:43**			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-06 **Matrix: Solid** **Sampled: 07/23/2018 08:45**			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-07 **Matrix: Solid** **Sampled: 07/23/2018 08:50**			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-09 **Matrix: Solid** **Sampled: 07/23/2018 10:05**			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-10 **Matrix: Solid** **Sampled: 07/23/2018 10:10**			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-11 Matrix: Solid Sampled: 07/23/2018 10:15			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-13 Matrix: Solid Sampled: 07/23/2018 10:50			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-14 Matrix: Solid Sampled: 07/23/2018 10:55			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-15 Matrix: Solid Sampled: 07/23/2018 11:00			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-16 Matrix: Solid Sampled: 07/23/2018 11:35			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-17 Matrix: Solid Sampled: 07/23/2018 11:40			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-18 Matrix: Solid Sampled: 07/23/2018 11:50			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) ~~Glass Jar, 8 oz (C)~~ MV			
Sample ID: P807022-20 Matrix: Solid Sampled: 07/23/2018 12:15			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) ~~Glass Jar, 8 oz (B)~~ MV			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-21 Matrix: Solid Sampled: 07/23/2018 12:20			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-22 Matrix: Solid Sampled: 07/23/2018 12:25			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-23 Matrix: Solid Sampled: 07/23/2018 14:00			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-24 Matrix: Solid Sampled: 07/23/2018 14:02			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-25 **Matrix: Solid** **Sampled: 07/23/2018 14:05**			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	

Containers Supplied:
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)

Released By	Date	Time	Received By	Date	Time
	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: P807022

Date Received: 7/25/18 Sampler's Name Present: ☐ Yes ☒ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 5.0 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 2.0 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 07/25/18

Performance Analytical Laboratories, Inc.

ELAP 2960

August 02, 2018

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : Agua Mansa

Work Order: P807022

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 7/24/2018. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 37

Qualifiers and Definitions 45

Chain of Custody PDFs 46

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: Agua Mansa
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P807022-01	GCP-LT-10-1'		Solid	07/23/2018	07/24/2018
P807022-02	GCP-LT-10-5'		Solid	07/23/2018	07/24/2018
P807022-03	GCP-LT-10-10'		Solid	07/23/2018	07/24/2018
P807022-04	GCP-LT-10-15'		Solid	07/23/2018	07/24/2018
P807022-05	GCP-LT-11-1'		Solid	07/23/2018	07/24/2018
P807022-06	GCP-LT-11-5'		Solid	07/23/2018	07/24/2018
P807022-07	GCP-LT-11-10'		Solid	07/23/2018	07/24/2018
P807022-08	GCP-LT-11-15'		Solid	07/23/2018	07/24/2018
P807022-09	MSA-LT-4-1'		Solid	07/23/2018	07/24/2018
P807022-10	MSA-LT-4-5'		Solid	07/23/2018	07/24/2018
P807022-11	MSA-LT-4-10'		Solid	07/23/2018	07/24/2018
P807022-12	MSA-LT-4-15'		Solid	07/23/2018	07/24/2018
P807022-13	MSA-LT-3-1'		Solid	07/23/2018	07/24/2018
P807022-14	MSA-LT-3-5'		Solid	07/23/2018	07/24/2018
P807022-15	MSA-LT-3-10'		Solid	07/23/2018	07/24/2018
P807022-16	MSA-LT-2-1'		Solid	07/23/2018	07/24/2018
P807022-17	MSA-LT-2-5'		Solid	07/23/2018	07/24/2018
P807022-18	MSA-LT-2-10'		Solid	07/23/2018	07/24/2018
P807022-19	MSA-LT-2-15'		Solid	07/23/2018	07/24/2018
P807022-20	MSA-LT-1-1'		Solid	07/23/2018	07/24/2018
P807022-21	MSA-LT-1-5'		Solid	07/23/2018	07/24/2018
P807022-22	MSA-LT-1-10'		Solid	07/23/2018	07/24/2018
P807022-23	VL-LT-1-1'		Solid	07/23/2018	07/24/2018
P807022-24	VL-LT-1-5'		Solid	07/23/2018	07/24/2018
P807022-25	VL-LT-1-10'		Solid	07/23/2018	07/24/2018

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 3

PAL WO#: A607022

Client Name	Langan
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	7210135O1
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	CrVI 7199	Title 22 Metals 6010/7000	Dioxins 1613	PCBs 8082
1	GCP-LT-10-1'	7/23	0750	S	2/8oz.jar		X	X	X	X
2	GCP-LT-10-5'	7/23	0800	S	2/8oz.jar	X	X	X	X	X
3	GCP-LT-10-10'	7/23	0807	S	2/8oz.jar	X	X	X	X	
4	GCP-LT-10-15'	7/23	0813	S	1/8oz.jar	X				
5	GCP-LT-11-1'	7/23	0843	S	2/8oz.jar		X	X	X	X
6	GCP-LT-11-5'	7/23	0845	S	2/8oz.jar	X	X	X	X	X
7	GCP-LT-11-10'	7/23	0850	S	2/8oz.jar	X	X	X	X	
8	GCP-LT-11-15'	7/23	0900	S	1/8oz.jar	X				
9	MSA-LT-4-1'	7/23	1005	S	2/8oz.jar		X	X		X
10	MSA-LT-4-5'	7/23	1010	S	2/8oz.jar	X	X	X		X

REQUESTED ANALYSIS

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	2.5°C MV	

RELINQUISHED BY
Signature: Brad A. McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/24/18
TIME: 1035

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 7/24/18
TIME: 1035

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-3502

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 2 of 3

PAL WO#: P807022

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	907-771-8217
Project Name/Number	Agua Mansa
P.O. Number	7210135D1
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH carbon chain 8015	Cr VI 7199	Title 22 Metals 6010/7000	Dioxins 1613	PCBs 8082
1	MSA-LT-4-10'	7/23	1015	S	2/ 8oz. jar	X	X	X		
2	MSA-LT-4-15'	7/23	1020		1/ 8oz jar	X				
3	MSA-LT-3-1'	7/23	1050		2/ 8oz. jar		X	X		
4	MSA-LT-3-5'	7/23	1055		2/ 8oz. jar		X	X		
5	MSA-LT-3-10'	7/23	1100		2/ 8oz. jar		X	X		
6	MSA-LT-2-1'		1135		2/ 8oz jar		X	X		X
7	MSA-LT-2-5'		1140		2/ 8oz jar	X	X	X		X
8	MSA-LT-2-10'		1150		2/ 8oz. jar	X	X	X		
9	MSA-LT-2-15'		1155		1/ 8oz jar	X				
10	MSA-LT-1-1'	↓	1215	↓	2/ 8oz. jar		X	X		

REQUESTED ANALYSIS

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	5 day	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	2.5 °C MW	

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/24/18
TIME: 1035

RECEIVED BY
Signature: M Walczuch
Print: M Walczuch
Company: PAL
DATE: 7/24/18
TIME: 1035

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3503

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P807022

Client Name	LANGAN
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Brad McCardell / Neil Shukla
Email	bmccardell@langan.com
Phone	909-771-8217
Project Name/Number	Agua Mansa
P.O. Number	721013501
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Title 22 Metals 6010/7000
1	MSA-LT-1-5'	7/23	1220	S	2/ 8oz. jar	X	X
2	MSA-LT-1-10'	7/23	1225	S	2/ 8 oz. jar	X	X
3	VL-LT-1-1'	7/23	1400	S	2/ 8oz. jar	X	X
4	VL-LT-1-5'	7/23	~~1420~~ 1402	S	2/ 8oz jar	X	X
5	VL-LT-1-10'	7/23	~~1425~~ 1405	S	2/ 8oz. jar	X	X
6							
7							
8							
9							
10							

G-3504

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	2.5°C MW	

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 7/24/18
TIME: 1035

RECEIVED BY
Signature: MValenzuela
Print: MValenzuela
Company: PAL
DATE: 7/24/18
TIME: 1035

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL WO#: P807023

Client Name	Metro
Address	1940 Century Park East, Los Angeles, Ca
	TRC Solutions
Project Manager	Stephanie Wernette
Email	SWernette@TRCsolutions.com
Phone	949-910-8340
Project Name/Number	1940 Century Park East / 194046.0000
P.O. Number	194046.0000
Sampled By	Jason Smith

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	Carbon Chain (8015)	Full Scan VOC (8260)	Title 22 Metals
1	ESB-1 d 5	7/24/18	1205	S	1/G/NA	X	X	X
2	ESB-1 d 10	7/24/18	1210	S	1/G/NA	X	X	X
3								
4								
5								
6								
7								
8								
9								
10								

REQUESTED ANALYSIS

PAL Containers used:	Yes	(No)	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	5 day	(24)	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	1.6°C MV	

RELINQUISHED BY

Signature: [signature]
Print: Jason Smith
Company: TRC Solutions
DATE: 7/24/18
TIME: 1400

RECEIVED BY

Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 7/24/18
TIME: 1400

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-3505

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P807022

Cooler 1 OF 1

Client Langan

Date Received: 7/24/18

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	2.5	0.0	2.5	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	☐	☒	☐
All samples listed on COC(s) are present	☒	☐	☐
All sample info on containers are consistent with sample info on COC(s)	☒	☐	☐
Correct containers for analyses requested	☒	☐	☐
Sufficient volume for analyses requested	☒	☐	☐
Proper preservation chemical(s) noted on COC and/or sample container	☒	☐	☐
All samples received within method holding time	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm	☐	☐	☒

NOTES

MSA-LT-2-10' & MSA-LT-1-1' one jar each had water in them from cooler Ice.

Initials	Date	Initials	Date
KLJ	7/24/18		

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

404862

Work Order ID: P807022

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P807022-01 Matrix: Solid Sampled: 07/23/2018 07:50			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-02 Matrix: Solid Sampled: 07/23/2018 08:00			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

Analysis	TAT	Due	Comments
Sample ID: P807022-03 **Matrix: Solid** **Sampled: 07/23/2018 08:07**			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-05 **Matrix: Solid** **Sampled: 07/23/2018 08:43**			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-06 **Matrix: Solid** **Sampled: 07/23/2018 08:45**			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-07 **Matrix: Solid** **Sampled: 07/23/2018 08:50**			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-09 **Matrix: Solid** **Sampled: 07/23/2018 10:05**			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-10 **Matrix: Solid** **Sampled: 07/23/2018 10:10**			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-11 Matrix: Solid Sampled: 07/23/2018 10:15			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-13 Matrix: Solid Sampled: 07/23/2018 10:50			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-14 Matrix: Solid Sampled: 07/23/2018 10:55			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-15 Matrix: Solid Sampled: 07/23/2018 11:00			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-16 Matrix: Solid Sampled: 07/23/2018 11:35			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-17 Matrix: Solid Sampled: 07/23/2018 11:40			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-18 Matrix: Solid Sampled: 07/23/2018 11:50			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) ~~Glass Jar, 8 oz (C)~~ MV			
Sample ID: P807022-20 Matrix: Solid Sampled: 07/23/2018 12:15			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) ~~Glass Jar, 8 oz (B)~~ MV			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-21 Matrix: Solid Sampled: 07/23/2018 12:20			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-22 Matrix: Solid Sampled: 07/23/2018 12:25			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-23 Matrix: Solid Sampled: 07/23/2018 14:00			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-24 Matrix: Solid Sampled: 07/23/2018 14:02			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-25 **Matrix: Solid** **Sampled: 07/23/2018 14:05**			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	

Containers Supplied:
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: P807022

Date Received: 7/25/18 Sampler's Name Present: ☐ Yes ☒ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 5.0 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 2.0 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 07/25/18

Enthalpy Analytical, LLC
931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client: Performance Analytical Laboratories, Inc.
Address: 2702 E. Willow Street
Signal Hill, CA 90755

Attn: Marycarol Valenzuela

Comments: P807022

See attached report for EPA 8290 results.

Lab Request: 404862
Report Date: 08/10/2018
Date Received: 07/24/2018
Client ID: 15509

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
404862-001	P807022-01
404862-002	P807022-02
404862-003	P807022-03
404862-004	P807022-05
404862-005	P807022-06
404862-006	P807022-07

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Ranjit K. K. Clarke

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 60 days from date received.

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ACCREDITED IN ACCORDANCE WITH nelac

Matrix: Solid	**Client:** Performance Analytical Laboratories, Inc.			**Collector:** Client	
Sampled: 07/23/2018 07:50	**Site:**				
Sample #: **404862-001**	**Client Sample #:** P807022-01			**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8290	Prep Method: Method					QCBatchID:		
See Attached		1						

Matrix: Solid	**Client:** Performance Analytical Laboratories, Inc.			**Collector:** Client	
Sampled: 07/23/2018 08:00	**Site:**				
Sample #: **404862-002**	**Client Sample #:** P807022-02			**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8290	Prep Method: Method					QCBatchID:		
See Attached		1						

Matrix: Solid	**Client:** Performance Analytical Laboratories, Inc.			**Collector:** Client	
Sampled: 07/23/2018 08:07	**Site:**				
Sample #: **404862-003**	**Client Sample #:** P807022-03			**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8290	Prep Method: Method					QCBatchID:		
See Attached		1						

Matrix: Solid	**Client:** Performance Analytical Laboratories, Inc.			**Collector:** Client	
Sampled: 07/23/2018 08:43	**Site:**				
Sample #: **404862-004**	**Client Sample #:** P807022-05			**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8290	Prep Method: Method					QCBatchID:		
See Attached		1						

Matrix: Solid	**Client:** Performance Analytical Laboratories, Inc.			**Collector:** Client	
Sampled: 07/23/2018 08:45	**Site:**				
Sample #: **404862-005**	**Client Sample #:** P807022-06			**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8290	Prep Method: Method					QCBatchID:		
See Attached		1						

Matrix: Solid	**Client:** Performance Analytical Laboratories, Inc.			**Collector:** Client	
Sampled: 07/23/2018 08:50	**Site:**				
Sample #: **404862-006**	**Client Sample #:** P807022-07			**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 8290	Prep Method: Method					QCBatchID:		
See Attached		1						

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
BQ5	Minor Dissolved Oxygen loss was observed in the blank water check.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
L2	LCS did not meet recovery criteria, however, the MS and MSD met LCS recovery criteria, validating the batch.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

404862

Work Order ID: P807022

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P807022-01 Matrix: Solid Sampled: 07/23/2018 07:50			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-02 Matrix: Solid Sampled: 07/23/2018 08:00			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-03 Matrix: Solid Sampled: 07/23/2018 08:07			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-05 Matrix: Solid Sampled: 07/23/2018 08:43			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-06 Matrix: Solid Sampled: 07/23/2018 08:45			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-07 Matrix: Solid Sampled: 07/23/2018 08:50			
S_Dioxin (17 Congeners)	5	07/31/2018 15:00	
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-09 Matrix: Solid Sampled: 07/23/2018 10:05			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-10 Matrix: Solid Sampled: 07/23/2018 10:10			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			

Released By	Date	Time	Received By	Date	Time
	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-11 Matrix: Solid Sampled: 07/23/2018 10:15			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-13 Matrix: Solid Sampled: 07/23/2018 10:50			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-14 Matrix: Solid Sampled: 07/23/2018 10:55			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-15 Matrix: Solid Sampled: 07/23/2018 11:00			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	7/25/18	9:25	[signature]	7/25/18	0925
[signature]	7/25/18	1500	[signature]	07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-16 Matrix: Solid Sampled: 07/23/2018 11:35			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-17 Matrix: Solid Sampled: 07/23/2018 11:40			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
S_PCB 8082	5	07/31/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (B) Glass Jar, 8 oz (C)			
Sample ID: P807022-18 Matrix: Solid Sampled: 07/23/2018 11:50			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (B) ~~Glass Jar, 8 oz (C)~~ MV			
Sample ID: P807022-20 Matrix: Solid Sampled: 07/23/2018 12:15			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied:			
Glass Jar, 8 oz (A) ~~Glass Jar, 8 oz (B)~~ MV			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

Analysis	TAT	Due	Comments
Sample ID: P807022-21 Matrix: Solid Sampled: 07/23/2018 12:20			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-22 Matrix: Solid Sampled: 07/23/2018 12:25			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-23 Matrix: Solid Sampled: 07/23/2018 14:00			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			
Sample ID: P807022-24 Matrix: Solid Sampled: 07/23/2018 14:02			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	
Containers Supplied: Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)			

Released By	Date	Time	Received By	Date	Time
	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P807022

Analysis	TAT	Due	Comments
Sample ID: P807022-25 Matrix: Solid Sampled: 07/23/2018 14:05			
S_Hexavalent Chromium 7199	5	07/31/2018 15:00	
S_Mercury 7471	5	07/31/2018 15:00	
S_Metals 6010B Title 22	5	07/31/2018 15:00	

Containers Supplied:
Glass Jar, 8 oz (A) Glass Jar, 8 oz (B)

Released By	Date	Time	Received By	Date	Time
	7/25/18	9:25		7/25/18	0925
	7/25/18	1500		07/25/18	1500

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: P807022

Date Received: 7/25/18 Sampler's Name Present: ☐ Yes ☒ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 5.0 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 2.0 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 07/25/18

Enthalpy - Orange

Report to: Ranjit Clarke
1 Park Plaza, Ste 1000
Irvine, CA 92614

Client Project # 404862

Analytical Report
J130

Method 8290
PCDDs/PCDFs

Enthalpy Analytical, LLC – Ultratrace
Phone: (910) 212-5858 / www.enthalpy.com
2714 Exchange Drive, Wilmington, NC 28405

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains __23__ pages.

Juanica L. Thomas

QA Review Performed by: Juanica L. Thomas

Report Issued Date: 08/10/18

ENTHALPY ANALYTICAL

P807022-01 (404862-001)						Detailed Results - Method 8290	
Client Details							
Client Sample ID:	P807022-01 (404862-001)		**Client Name:**	**EA Orange**			
Client Project ID:	404862		**Sample Collection Date:**	**23-Jul-18**		**RRFs:**	**CS3 AB**
Lab/Sample Details							
Lab Job #:	**J130**	**Matrix:**	**Soil**	**Date Received:**	**27-Jul-18**		
Lab Sample ID:	**J130_10113_001**	**Weight/Volume:**	**14.7**	**Date Extracted:**	**02-Aug-18**		
QC Batch #:	**10113**	**Split Factor:**	**1**	**Date Analyzed:**	**09-Aug-18**		
Dilution:	-			**Time Analyzed:**	**18:47:19**		

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.00848			ES 2,3,7,8-TCDD	84.2	
1,2,3,7,8-PeCDD	ND	0.0188			ES 1,2,3,7,8-PeCDD	86.8	
1,2,3,4,7,8-HxCDD	ND	0.0130			ES 1,2,3,4,7,8-HxCDD	92.4	
1,2,3,6,7,8-HxCDD	ND	0.0153			ES 1,2,3,6,7,8-HxCDD	78.9	
1,2,3,7,8,9-HxCDD	0.0720				ES 1,2,3,7,8,9-HxCDD	82.0	
1,2,3,4,6,7,8-HpCDD	ND	0.0137			ES 1,2,3,4,6,7,8-HpCDD	78.8	
OCDD	0.370				ES OCDD	71.3	
2,3,7,8-TCDF	ND	0.0073			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.00804			ES 1,2,3,7,8-PeCDF	105	
2,3,4,7,8-PeCDF	ND	0.00858			ES 2,3,4,7,8-PeCDF	103	
1,2,3,4,7,8-HxCDF	ND	0.0109			ES 1,2,3,4,7,8-HxCDF	76.1	
1,2,3,6,7,8-HxCDF	ND	0.0106			ES 1,2,3,6,7,8-HxCDF	78.7	
2,3,4,6,7,8-HxCDF	ND	0.0111			ES 2,3,4,6,7,8-HxCDF	77.8	
1,2,3,7,8,9-HxCDF	ND	0.0121			ES 1,2,3,7,8,9-HxCDF	95.4	
1,2,3,4,6,7,8-HpCDF	EMPC		0.0395		ES 1,2,3,4,6,7,8-HpCDF	79.0	
1,2,3,4,7,8,9-HpCDF	ND	0.0167			ES 1,2,3,4,7,8,9-HpCDF	79.9	
OCDF	ND	0.0179			ES OCDF	74.3	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	97.8	
Total TCDDs	ND	0.00848	0.0728		CS 12347-PeCDD	101	
Total PeCDDs	ND	0.0188	ND		CS 12346-PeCDF	114	
Total HxCDDs	0.0720		0.0720		CS 123469-HxCDF	99.3	
Total HpCDDs	0.121		0.121		CS 1234689-HpCDF	91.1	
					AS 1368-TCDD	98.1	
Total TCDFs	0.0837		0.0837		AS 1368-TCDF	116	
Total PeCDFs	ND	0.00818	ND				
Total HxCDFs	0.0543		0.136				
Total HpCDFs	ND	0.0124	0.0395				
Total PCDD/PCDFs	**0.701**		**0.895**				

P807022-02 (404862-002)						Detailed Results - Method 8290	
Client Details							
Client Sample ID:	P807022-02 (404862-002)		**Client Name:**	**EA Orange**			
Client Project ID:	404862		**Sample Collection Date:**	**23-Jul-18**		**RRFs:**	**CS3 AB**
Lab/Sample Details							
Lab Job #:	**J130**	**Matrix:**	**Soil**	**Date Received:**	**27-Jul-18**		
Lab Sample ID:	**J130_10113_002**	**Weight/Volume:**	**15.1**	**Date Extracted:**	**02-Aug-18**		
QC Batch #:	**10113**	**Split Factor:**	**1**	**Date Analyzed:**	**09-Aug-18**		
Dilution:	-			**Time Analyzed:**	**19:36:21**		

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0139			ES 2,3,7,8-TCDD	89.2	
1,2,3,7,8-PeCDD	ND	0.0256			ES 1,2,3,7,8-PeCDD	88.5	
1,2,3,4,7,8-HxCDD	ND	0.0206			ES 1,2,3,4,7,8-HxCDD	88.5	
1,2,3,6,7,8-HxCDD	ND	0.0244			ES 1,2,3,6,7,8-HxCDD	81.8	
1,2,3,7,8,9-HxCDD	ND	0.0235			ES 1,2,3,7,8,9-HxCDD	81.7	
1,2,3,4,6,7,8-HpCDD	ND	0.0194			ES 1,2,3,4,6,7,8-HpCDD	78.8	
OCDD	ND	0.0779			ES OCDD	73.1	
2,3,7,8-TCDF	ND	0.0074			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.00725			ES 1,2,3,7,8-PeCDF	108	
2,3,4,7,8-PeCDF	ND	0.00801			ES 2,3,4,7,8-PeCDF	102	
1,2,3,4,7,8-HxCDF	ND	0.0119			ES 1,2,3,4,7,8-HxCDF	78.5	
1,2,3,6,7,8-HxCDF	ND	0.0113			ES 1,2,3,6,7,8-HxCDF	80.5	
2,3,4,6,7,8-HxCDF	ND	0.0119			ES 2,3,4,6,7,8-HxCDF	79.2	
1,2,3,7,8,9-HxCDF	ND	0.0136			ES 1,2,3,7,8,9-HxCDF	92.2	
1,2,3,4,6,7,8-HpCDF	ND	0.0169			ES 1,2,3,4,6,7,8-HpCDF	80.5	
1,2,3,4,7,8,9-HpCDF	ND	0.0249			ES 1,2,3,4,7,8,9-HpCDF	79.6	
OCDF	ND	0.0309			ES OCDF	72.0	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	96.9	
Total TCDDs	ND	0.0139	ND		CS 12347-PeCDD	99.4	
Total PeCDDs	ND	0.0256	ND		CS 12346-PeCDF	108	
Total HxCDDs	ND	0.0216	ND		CS 123469-HxCDF	98.5	
Total HpCDDs	ND	0.0194	0.108		CS 1234689-HpCDF	87.9	
					AS 1368-TCDD	93.4	
Total TCDFs	ND	0.00740	ND		AS 1368-TCDF	106	
Total PeCDFs	ND	0.0100	ND				
Total HxCDFs	ND	0.0119	ND				
Total HpCDFs	ND	0.0186	ND				
Total PCDD/PCDFs	**ND**		**0.108**				

ENTHALPY ANALYTICAL

P807022-03 (404862-003)						Detailed Results - Method 8290	
Client Details							
Client Sample ID:	P807022-03 (404862-003)		**Client Name:**	**EA Orange**			
Client Project ID:	404862		**Sample Collection Date:**	**23-Jul-18**		**RRFs:**	**CS3 AB**
Lab/Sample Details							
Lab Job #:	**J130**	**Matrix:**	**Soil**	**Date Received:**	**27-Jul-18**		
Lab Sample ID:	**J130_10113_003**	**Weight/Volume:**	**13.9**	**Date Extracted:**	**02-Aug-18**		
QC Batch #:	**10113**	**Split Factor:**	**1**	**Date Analyzed:**	**09-Aug-18**		
Dilution:	-			**Time Analyzed:**	**20:25:23**		

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0124			ES 2,3,7,8-TCDD	90.8	
1,2,3,7,8-PeCDD	ND	0.0190			ES 1,2,3,7,8-PeCDD	89.2	
1,2,3,4,7,8-HxCDD	ND	0.0213			ES 1,2,3,4,7,8-HxCDD	83.1	
1,2,3,6,7,8-HxCDD	ND	0.0245			ES 1,2,3,6,7,8-HxCDD	80.0	
1,2,3,7,8,9-HxCDD	EMPC		0.106		ES 1,2,3,7,8,9-HxCDD	83.1	
1,2,3,4,6,7,8-HpCDD	ND	0.0281			ES 1,2,3,4,6,7,8-HpCDD	78.9	
OCDD	0.269				ES OCDD	73.8	
2,3,7,8-TCDF	ND	0.00673			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.00664			ES 1,2,3,7,8-PeCDF	107	
2,3,4,7,8-PeCDF	ND	0.00704			ES 2,3,4,7,8-PeCDF	104	
1,2,3,4,7,8-HxCDF	ND	0.00987			ES 1,2,3,4,7,8-HxCDF	77.7	
1,2,3,6,7,8-HxCDF	ND	0.0094			ES 1,2,3,6,7,8-HxCDF	81.0	
2,3,4,6,7,8-HxCDF	ND	0.0101			ES 2,3,4,6,7,8-HxCDF	79.3	
1,2,3,7,8,9-HxCDF	ND	0.0122			ES 1,2,3,7,8,9-HxCDF	84.2	
1,2,3,4,6,7,8-HpCDF	ND	0.0122			ES 1,2,3,4,6,7,8-HpCDF	79.4	
1,2,3,4,7,8,9-HpCDF	ND	0.0177			ES 1,2,3,4,7,8,9-HpCDF	78.8	
OCDF	ND	0.0227			ES OCDF	75.2	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	92.4	
Total TCDDs	ND	0.0124	ND		CS 12347-PeCDD	94.4	
Total PeCDDs	ND	0.0190	ND		CS 12346-PeCDF	101	
Total HxCDDs	ND	0.0214	0.106		CS 123469-HxCDF	90.4	
Total HpCDDs	ND	0.0281	0.101		CS 1234689-HpCDF	80.2	
					AS 1368-TCDD	90.3	
Total TCDFs	ND	0.00673	ND		AS 1368-TCDF	99.3	
Total PeCDFs	ND	0.00936	ND				
Total HxCDFs	ND	0.0102	ND				
Total HpCDFs	ND	0.0134	ND				
Total PCDD/PCDFs	**0.269**		**0.476**				

P807022-05 (404862-004)						Detailed Results - Method 8290	
Client Details							
Client Sample ID:	P807022-05 (404862-004)		**Client Name:**	**EA Orange**			
Client Project ID:	404862		**Sample Collection Date:**	**23-Jul-18**		**RRFs:**	**CS3 AB**
Lab/Sample Details							
Lab Job #:	**J130**	**Matrix:**	**Soil**	**Date Received:**	**27-Jul-18**		
Lab Sample ID:	**J130_10113_004**	**Weight/Volume:**	**15.0**	**Date Extracted:**	**02-Aug-18**		
QC Batch #:	**10113**	**Split Factor:**	**1**	**Date Analyzed:**	**09-Aug-18**		
Dilution:	**-**			**Time Analyzed:**	**21:14:24**		

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0103			ES 2,3,7,8-TCDD	89.6	
1,2,3,7,8-PeCDD	ND	0.0173			ES 1,2,3,7,8-PeCDD	92.4	
1,2,3,4,7,8-HxCDD	ND	0.0233			ES 1,2,3,4,7,8-HxCDD	88.8	
1,2,3,6,7,8-HxCDD	ND	0.0237			ES 1,2,3,6,7,8-HxCDD	84.3	
1,2,3,7,8,9-HxCDD	ND	0.0248			ES 1,2,3,7,8,9-HxCDD	87.4	
1,2,3,4,6,7,8-HpCDD	EMPC		0.102		ES 1,2,3,4,6,7,8-HpCDD	81.4	
OCDD	0.519				ES OCDD	78.0	
2,3,7,8-TCDF	ND	0.00816			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.00683			ES 1,2,3,7,8-PeCDF	109	
2,3,4,7,8-PeCDF	ND	0.00748			ES 2,3,4,7,8-PeCDF	105	
1,2,3,4,7,8-HxCDF	ND	0.0111			ES 1,2,3,4,7,8-HxCDF	82.1	
1,2,3,6,7,8-HxCDF	ND	0.0106			ES 1,2,3,6,7,8-HxCDF	83.4	
2,3,4,6,7,8-HxCDF	ND	0.0112			ES 2,3,4,6,7,8-HxCDF	83.0	
1,2,3,7,8,9-HxCDF	ND	0.0141			ES 1,2,3,7,8,9-HxCDF	88.5	
1,2,3,4,6,7,8-HpCDF	ND	0.00832			ES 1,2,3,4,6,7,8-HpCDF	80.4	
1,2,3,4,7,8,9-HpCDF	ND	0.0113			ES 1,2,3,4,7,8,9-HpCDF	83.6	
OCDF	ND	0.0195			ES OCDF	78.8	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	97.6	
Total TCDDs	ND	0.0103	0.0549		CS 12347-PeCDD	100	
Total PeCDDs	ND	0.0173	ND		CS 12346-PeCDF	106	
Total HxCDDs	ND	0.0236	ND		CS 123469-HxCDF	101	
Total HpCDDs	0.121		0.223		CS 1234689-HpCDF	88.7	
					AS 1368-TCDD	96.5	
Total TCDFs	0.0573		0.0573		AS 1368-TCDF	102	
Total PeCDFs	ND	0.0117	ND				
Total HxCDFs	ND	0.0114	ND				
Total HpCDFs	ND	0.00896	ND				
Total PCDD/PCDFs	**0.697**		**0.854**				

P807022-06 (404862-005)				Detailed Results - Method 8290	
Client Details					
Client Sample ID:	P807022-06 (404862-005)	**Client Name:**	**EA Orange**		
Client Project ID:	404862	**Sample Collection Date:**	**23-Jul-18**	**RRFs:**	**CS3 AB**
Lab/Sample Details					
Lab Job #:	**J130**	**Matrix:**	**Soil**	**Date Received:**	**27-Jul-18**
Lab Sample ID:	**J130_10113_005**	**Weight/Volume:**	**14.1**	**Date Extracted:**	**02-Aug-18**
QC Batch #:	**10113**	**Split Factor:**	**1**	**Date Analyzed:**	**09-Aug-18**
Dilution:	-			**Time Analyzed:**	**22:03:26**

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0138			ES 2,3,7,8-TCDD	90.8	
1,2,3,7,8-PeCDD	ND	0.0276			ES 1,2,3,7,8-PeCDD	92.4	
1,2,3,4,7,8-HxCDD	ND	0.0240			ES 1,2,3,4,7,8-HxCDD	84.6	
1,2,3,6,7,8-HxCDD	ND	0.0265			ES 1,2,3,6,7,8-HxCDD	78.3	
1,2,3,7,8,9-HxCDD	ND	0.0251			ES 1,2,3,7,8,9-HxCDD	78.9	
1,2,3,4,6,7,8-HpCDD	ND	0.0194			ES 1,2,3,4,6,7,8-HpCDD	78.8	
OCDD	EMPC		0.223		ES OCDD	71.2	
2,3,7,8-TCDF	ND	0.0082			ES 2,3,7,8-TCDF	100	
1,2,3,7,8-PeCDF	ND	0.0081			ES 1,2,3,7,8-PeCDF	107	
2,3,4,7,8-PeCDF	ND	0.0084			ES 2,3,4,7,8-PeCDF	107	
1,2,3,4,7,8-HxCDF	ND	0.0123			ES 1,2,3,4,7,8-HxCDF	76.5	
1,2,3,6,7,8-HxCDF	ND	0.0111			ES 1,2,3,6,7,8-HxCDF	79.2	
2,3,4,6,7,8-HxCDF	ND	0.0117			ES 2,3,4,6,7,8-HxCDF	77.3	
1,2,3,7,8,9-HxCDF	ND	0.0135			ES 1,2,3,7,8,9-HxCDF	86.9	
1,2,3,4,6,7,8-HpCDF	ND	0.0127			ES 1,2,3,4,6,7,8-HpCDF	77.6	
1,2,3,4,7,8,9-HpCDF	ND	0.0180			ES 1,2,3,4,7,8,9-HpCDF	77.5	
OCDF	ND	0.0255			ES OCDF	73.2	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	100	
Total TCDDs	ND	0.0138	ND		CS 12347-PeCDD	103	
Total PeCDDs	ND	0.0276	ND		CS 12346-PeCDF	111	
Total HxCDDs	ND	0.0250	ND		CS 123469-HxCDF	95.6	
Total HpCDDs	ND	0.0194	ND		CS 1234689-HpCDF	86.0	
					AS 1368-TCDD	98.0	
Total TCDFs	ND	0.00823	ND		AS 1368-TCDF	111	
Total PeCDFs	ND	0.0117	ND				
Total HxCDFs	ND	0.0119	ND				
Total HpCDFs	ND	0.0140	ND				
Total PCDD/PCDFs	**ND**		**0.223**				

P807022-07 (404862-006)	Detailed Results - Method 8290

Client Details

Client Sample ID: P807022-07 (404862-006)	**Client Name:** EA Orange
Client Project ID: 404862	**Sample Collection Date:** 23-Jul-18 **RRFs:** CS3 AB

Lab/Sample Details

Lab Job #:	J130	**Matrix:**	Soil	**Date Received:**	27-Jul-18
Lab Sample ID:	J130_10113_006	**Weight/Volume:**	13.7	**Date Extracted:**	02-Aug-18
QC Batch #:	10113	**Split Factor:**	1	**Date Analyzed:**	09-Aug-18
Dilution:	-			**Time Analyzed:**	22:52:27

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0152			ES 2,3,7,8-TCDD	85.1	
1,2,3,7,8-PeCDD	ND	0.0289			ES 1,2,3,7,8-PeCDD	85.7	
1,2,3,4,7,8-HxCDD	ND	0.0279			ES 1,2,3,4,7,8-HxCDD	81.5	
1,2,3,6,7,8-HxCDD	ND	0.0317			ES 1,2,3,6,7,8-HxCDD	77.1	
1,2,3,7,8,9-HxCDD	ND	0.0305			ES 1,2,3,7,8,9-HxCDD	77.1	
1,2,3,4,6,7,8-HpCDD	EMPC		0.174		ES 1,2,3,4,6,7,8-HpCDD	80.0	
OCDD	1.03				ES OCDD	74.0	
2,3,7,8-TCDF	ND	0.00849			ES 2,3,7,8-TCDF	101	
1,2,3,7,8-PeCDF	ND	0.00779			ES 1,2,3,7,8-PeCDF	108	
2,3,4,7,8-PeCDF	ND	0.00937			ES 2,3,4,7,8-PeCDF	100	
1,2,3,4,7,8-HxCDF	ND	0.0124			ES 1,2,3,4,7,8-HxCDF	75.2	
1,2,3,6,7,8-HxCDF	ND	0.0118			ES 1,2,3,6,7,8-HxCDF	77.9	
2,3,4,6,7,8-HxCDF	ND	0.0125			ES 2,3,4,6,7,8-HxCDF	77.5	
1,2,3,7,8,9-HxCDF	ND	0.0153			ES 1,2,3,7,8,9-HxCDF	86.1	
1,2,3,4,6,7,8-HpCDF	ND	0.0130			ES 1,2,3,4,6,7,8-HpCDF	79.7	
1,2,3,4,7,8,9-HpCDF	ND	0.0186			ES 1,2,3,4,7,8,9-HpCDF	78.1	
OCDF	ND	0.0484			ES OCDF	76.1	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	98.5	
Total TCDDs	ND	0.0152	ND		CS 12347-PeCDD	99.9	
Total PeCDDs	ND	0.0289	ND		CS 12346-PeCDF	115	
Total HxCDDs	ND	0.0288	ND		CS 123469-HxCDF	98.5	
Total HpCDDs	0.218		0.392		CS 1234689-HpCDF	91.3	
					AS 1368-TCDD	94.4	
Total TCDFs	ND	0.00849	ND		AS 1368-TCDF	108	
Total PeCDFs	ND	0.0116	ND				
Total HxCDFs	ND	0.0126	ND				
Total HpCDFs	ND	0.0144	ND				
Total PCDD/PCDFs	**1.25**		**1.42**				

Summary of Results: Totals

Enthalpy Ultratrace Batch # 10113

Method 8290

Analyte	Method Blank pg/g	P807022-01 (404862-001) pg/g	P807022-02 (404862-002) pg/g	P807022-03 (404862-003) pg/g	P807022-05 (404862-004) pg/g	P807022-06 (404862-005) pg/g	P807022-07 (404862-006) pg/g
Totals							
TCDDs	(0.0205)	0.0728	(0.0139)	(0.0124)	0.0549	(0.0138)	(0.0152)
PeCDDs	(0.0425)	(0.0188)	(0.0256)	(0.0190)	(0.0173)	(0.0276)	(0.0289)
HxCDDs	0.134	0.0720	(0.0216)	0.106	(0.0236)	(0.0250)	(0.0288)
HpCDDs	(0.0301)	0.121	0.108	0.101	0.223	(0.0194)	0.392
OCDD	(0.118)	0.370	(0.0779)	0.269	0.519	0.223	1.03
TCDFs	(0.0114)	0.0837	(0.00740)	(0.00673)	0.0573	(0.00823)	(0.00849)
PeCDFs	(0.0109)	(0.00818)	(0.0100)	(0.00936)	(0.0117)	(0.0117)	(0.0116)
HxCDFs	(0.0213)	0.136	(0.0119)	(0.0102)	(0.0114)	(0.0119)	(0.0126)
HpCDFs	(0.0191)	0.0395	(0.0186)	(0.0134)	(0.00896)	(0.0140)	(0.0144)
OCDF	(0.0246)	(0.0179)	(0.0309)	(0.0227)	(0.0195)	(0.0255)	(0.0484)

ND = (DL) EMPC = [ ]

Continuing Calibration

PCDD/Fs

	CS3-A	CS3-B
Concentration (pg/µL)	10	10
Standard ID	SIDAA19	SIDAA19
Acquisition Date	09-Aug-18	10-Aug-18
Acquisition Time	15:24:48	0:30:30

Analyte	RRF	RRF	ICAL RRFs	PD (CS3-A v. ICAL)	PD (CS3-B v. ICAL)	Average RRF	RPD (CS3s)
2,3,7,8-TCDD	1.16	1.17	1.16	0.0	0.9	1.17	0.9
1,2,3,7,8-PeCDD	1.02	1.05	1.06	-3.8	-0.9	1.04	2.9
1,2,3,4,7,8-HxCDD	1.08	1.13	1.05	2.9	7.6	1.11	4.5
1,2,3,6,7,8-HxCDD	1.11	1.09	1.09	1.8	0.0	1.10	1.8
1,2,3,7,8,9-HxCDD	1.04	1.04	1.02	2.0	2.0	1.04	0.0
1,2,3,4,6,7,8-HpCDD	1.07	1.06	1.07	0.0	-0.9	1.07	0.9
OCDD	1.15	1.13	1.11	3.6	1.8	1.14	1.8
2,3,7,8-TCDF	1.00	1.00	1.08	-7.4	-7.4	1.00	0.0
1,2,3,7,8-PeCDF	1.01	1.04	1.04	-2.9	0.0	1.03	2.9
2,3,4,7,8-PeCDF	1.03	1.02	1.02	1.0	0.0	1.03	1.0
1,2,3,4,7,8-HxCDF	1.32	1.33	1.36	-2.9	-2.2	1.33	0.8
1,2,3,6,7,8-HxCDF	1.19	1.21	1.24	-4.0	-2.4	1.20	1.7
2,3,4,6,7,8-HxCDF	1.21	1.22	1.26	-4.0	-3.2	1.22	0.8
1,2,3,7,8,9-HxCDF	1.19	1.22	1.24	-4.0	-1.6	1.21	2.5
1,2,3,4,6,7,8-HpCDF	1.36	1.38	1.43	-4.9	-3.5	1.37	1.5
1,2,3,4,7,8,9-HpCDF	1.34	1.33	1.38	-2.9	-3.6	1.34	0.7
OCDF	1.06	1.05	1.11	-4.5	-5.4	1.06	0.9
ES 2,3,7,8-TCDD	1.01	1.04	1.02	-1.0	2.0	1.03	2.9
ES 1,2,3,7,8-PeCDD	0.81	0.82	0.86	-5.8	-4.7	0.82	1.2
ES 1,2,3,4,7,8-HxCDD	1.00	0.99	1.03	-2.9	-3.9	1.00	1.0
ES 1,2,3,6,7,8-HxCDD	0.96	1.00	1.02	-5.9	-2.0	0.98	4.1
ES 1,2,3,7,8,9-HxCDD	1.07	1.12	1.14	-6.1	-1.8	1.10	4.6
ES 1,2,3,4,6,7,8-HpCDD	0.88	0.87	0.86	2.3	1.2	0.88	1.1
ES OCDD	0.64	0.65	0.67	-4.5	-3.0	0.65	1.6
ES 2,3,7,8-TCDF	1.00	0.99	1.02	-2.0	-2.9	1.00	1.0
ES 1,2,3,7,8-PeCDF	0.84	0.82	0.86	-2.3	-4.7	0.83	2.4
ES 2,3,4,7,8-PeCDF	0.80	0.81	0.89	-10.1	-9.0	0.81	1.2
ES 1,2,3,4,7,8-HxCDF	1.25	1.25	1.24	0.8	0.8	1.25	0.0
ES 1,2,3,6,7,8-HxCDF	1.46	1.47	1.44	1.4	2.1	1.47	0.7
ES 2,3,4,6,7,8-HxCDF	1.37	1.40	1.31	4.6	6.9	1.39	2.2
ES 1,2,3,7,8,9-HxCDF	1.18	1.17	1.10	7.3	6.4	1.18	0.9
ES 1,2,3,4,6,7,8-HpCDF	1.02	1.00	1.00	2.0	0.0	1.01	2.0
ES 1,2,3,4,7,8,9-HpCDF	0.86	0.85	0.81	6.2	4.9	0.86	1.2
ES OCDF	0.84	0.86	0.87	-3.4	-1.1	0.85	2.4

Continuing Calibration — PCDD/Fs

	CS3-A	CS3-B
Concentration (pg/µL)	10	10
Standard ID	SIDAA19	SIDAA19
Acquisition Date	09-Aug-18	10-Aug-18
Acquisition Time	15:24:48	0:30:30

Analyte	RRF	RRF	ICAL RRFs	PD (CS3-A v. ICAL)	PD (CS3-B v. ICAL)	Average RRF	RPD (CS3s)
CS 37Cl-2378-TCDD	1.21	1.24	1.22	-0.8	1.6	1.23	2.4
CS 12347-PeCDD	0.75	0.74	0.72	4.2	2.8	0.75	1.3
CS 12346-PeCDF	0.84	0.82	0.90	-6.7	-8.9	0.83	2.4
CS 123469-HxCDF	1.23	1.28	1.23	0.0	4.1	1.26	4.0
CS 1234689-HpCDF	0.92	0.92	0.90	2.2	2.2	0.92	0.0
SS 37Cl-2378-TCDD	1.20	1.19	1.20	0.0	-0.8	1.20	0.8
SS 12347-PeCDD	0.93	0.90	0.85	9.4	5.9	0.92	3.3
SS 12346-PeCDF	1.00	1.00	1.05	-4.8	-4.8	1.00	0.0
SS 123469-HxCDF	0.90	0.91	0.94	-4.3	-3.2	0.91	1.1
SS 1234689-HpCDF	0.90	0.92	0.90	0.0	2.2	0.91	2.2
AS 1368-TCDD	1.08	1.08	1.10	-1.8	-1.8	1.08	0.0
AS 1368-TCDF	1.10	1.10	1.17	-6.0	-6.0	1.10	0.0
FS 1278-TCDD	-	-	1.07	-	-	-	-
FS 12478-PeCDD	-	-	1.01	-	-	-	-
FS 123468-HxCDD	-	-	1.06	-	-	-	-
FS 1234679-HpCDD	-	-	1.22	-	-	-	-
TS 1378-TCDD	-	-	1.03	-	-	-	-
Analyte	Area	Area					
JS 1234-TCDD	2963264	2341951					
JS 1234-TCDF	4499397	3636393					
JS 123467-HxCDD	1990636	1529380					

ENTHALPY ANALYTICAL

Method Blank

Detailed Results - Method 8290

RRFs: CS3 AB

Lab/Sample Details

		Matrix:	Soil	Date Received:	N/A
Lab Sample ID:	MB1_10113_DF	Weight/Volume:	10.0	Date Extracted:	02-Aug-18
QC Batch #:	10113	Split Factor:	1	Date Analyzed:	09-Aug-18
Dilution:	-			Time Analyzed:	17:58:18

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0205			ES 2,3,7,8-TCDD	82.2	
1,2,3,7,8-PeCDD	ND	0.0425			ES 1,2,3,7,8-PeCDD	82.1	
1,2,3,4,7,8-HxCDD	ND	0.0271			ES 1,2,3,4,7,8-HxCDD	80.6	
1,2,3,6,7,8-HxCDD	ND	0.0295			ES 1,2,3,6,7,8-HxCDD	71.2	
1,2,3,7,8,9-HxCDD	0.134				ES 1,2,3,7,8,9-HxCDD	78.8	
1,2,3,4,6,7,8-HpCDD	ND	0.0301			ES 1,2,3,4,6,7,8-HpCDD	73.0	
OCDD	ND	0.118			ES OCDD	68.4	
2,3,7,8-TCDF	ND	0.0114			ES 2,3,7,8-TCDF	102	
1,2,3,7,8-PeCDF	ND	0.0168			ES 1,2,3,7,8-PeCDF	114	
2,3,4,7,8-PeCDF	ND	0.0196			ES 2,3,4,7,8-PeCDF	107	
1,2,3,4,7,8-HxCDF	ND	0.0210			ES 1,2,3,4,7,8-HxCDF	72.2	
1,2,3,6,7,8-HxCDF	ND	0.0199			ES 1,2,3,6,7,8-HxCDF	76.4	
2,3,4,6,7,8-HxCDF	ND	0.0200			ES 2,3,4,6,7,8-HxCDF	76.2	
1,2,3,7,8,9-HxCDF	ND	0.0260			ES 1,2,3,7,8,9-HxCDF	83.6	
1,2,3,4,6,7,8-HpCDF	ND	0.0174			ES 1,2,3,4,6,7,8-HpCDF	75.6	
1,2,3,4,7,8,9-HpCDF	ND	0.0246			ES 1,2,3,4,7,8,9-HpCDF	75.6	
OCDF	ND	0.0246			ES OCDF	70.7	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	98.6	
Total TCDDs	ND	0.0205	ND		CS 12347-PeCDD	101	
Total PeCDDs	ND	0.0425	ND		CS 12346-PeCDF	123	
Total HxCDDs	0.134		0.134		CS 123469-HxCDF	93.2	
Total HpCDDs	ND	0.0301	ND		CS 1234689-HpCDF	89.1	
					AS 1368-TCDD	97.0	
Total TCDFs	ND	0.0114	ND		AS 1368-TCDF	118	
Total PeCDFs	ND	0.0109	ND				
Total HxCDFs	ND	0.0213	ND				
Total HpCDFs	ND	0.0191	ND				
Total PCDD/PCDFs	**0.134**		**0.134**				

ENTHALPY ANALYTICAL

OPR	Detailed Results - Method 8290

RRFs: CS3 AB

Lab/Sample Details

		Matrix:	Soil	Date Received:	N/A
Lab Sample ID:	OPR_10113_DF	Final Vol. (uL)	20	Date Extracted:	02-Aug-18
QC Batch #:	10113	Split Factor:	1	Date Analyzed:	09-Aug-18
Dilution:	-			Time Analyzed:	16:20:41

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	10.6				ES 2,3,7,8-TCDD	70.9	
1,2,3,7,8-PeCDD	53.8				ES 1,2,3,7,8-PeCDD	80.0	
1,2,3,4,7,8-HxCDD	53.5				ES 1,2,3,4,7,8-HxCDD	80.3	
1,2,3,6,7,8-HxCDD	56.1				ES 1,2,3,6,7,8-HxCDD	74.1	
1,2,3,7,8,9-HxCDD	53.2				ES 1,2,3,7,8,9-HxCDD	78.4	
1,2,3,4,6,7,8-HpCDD	55.2				ES 1,2,3,4,6,7,8-HpCDD	75.6	
OCDD	108				ES OCDD	72.1	
2,3,7,8-TCDF	11.6				ES 2,3,7,8-TCDF	101	
1,2,3,7,8-PeCDF	54.9				ES 1,2,3,7,8-PeCDF	118	
2,3,4,7,8-PeCDF	54.3				ES 2,3,4,7,8-PeCDF	116	
1,2,3,4,7,8-HxCDF	53.9				ES 1,2,3,4,7,8-HxCDF	72.9	
1,2,3,6,7,8-HxCDF	54.0				ES 1,2,3,6,7,8-HxCDF	74.4	
2,3,4,6,7,8-HxCDF	55.6				ES 2,3,4,6,7,8-HxCDF	72.0	
1,2,3,7,8,9-HxCDF	54.0				ES 1,2,3,7,8,9-HxCDF	80.3	
1,2,3,4,6,7,8-HpCDF	54.6				ES 1,2,3,4,6,7,8-HpCDF	76.4	
1,2,3,4,7,8,9-HpCDF	54.7				ES 1,2,3,4,7,8,9-HpCDF	76.4	
OCDF	110				ES OCDF	73.5	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	87.3	
Total TCDDs	37.2		37.2		CS 12347-PeCDD	98.8	
Total PeCDDs	157		157		CS 12346-PeCDF	135	V
Total HxCDDs	217		217		CS 123469-HxCDF	99.0	
Total HpCDDs	107		107		CS 1234689-HpCDF	91.7	
					AS 1368-TCDD	84.7	
Total TCDFs	41.3		41.3		AS 1368-TCDF	111	
Total PeCDFs	194		194				
Total HxCDFs	267		267				
Total HpCDFs	109		109				
Total PCDD/PCDFs	**1350**		**1350**				

ENTHALPY ANALYTICAL

OPR Demonstration Data

Batch ID#: 10113

Analyte	Conc. (pg)	Lower Limit	Upper Limit	Acceptable?	Standard	ES Recoveries	Lower Limit	Upper Limit	Acceptable?
2,3,7,8-TCDD	10.6	6.70	15.8	Y	ES 2,3,7,8-TCDD	70.9	20.0	175	Y
1,2,3,7,8-PeCDD	53.8	35.0	71.0	Y	ES 1,2,3,7,8-PeCDD	80.0	21.0	227	Y
1,2,3,4,7,8-HxCDD	53.5	35.0	82.0	Y	ES 1,2,3,4,7,8-HxCDD	80.3	21.0	193	Y
1,2,3,6,7,8-HxCDD	56.1	38.0	67.0	Y	ES 1,2,3,6,7,8-HxCDD	74.1	25.0	163	Y
1,2,3,7,8,9-HxCDD	53.2	32.0	81.0	Y	ES 1,2,3,7,8,9-HxCDD	78.4	N/A	N/A	N/A
1,2,3,4,6,7,8-HpCDD	55.2	35.0	70.0	Y	ES 1,2,3,4,6,7,8-HpCDD	75.6	26.0	166	Y
OCDD	108	78.0	144	Y	ES OCDD	144	26.0	397	Y
2,3,7,8-TCDF	11.6	7.50	15.8	Y	ES 2,3,7,8-TCDF	101	22.0	152	Y
1,2,3,7,8-PeCDF	54.9	40.0	67.0	Y	ES 1,2,3,7,8-PeCDF	118	21.0	192	Y
2,3,4,7,8-PeCDF	54.3	34.0	80.0	Y	ES 2,3,4,7,8-PeCDF	116	13.0	328	Y
1,2,3,4,7,8-HxCDF	53.9	36.0	67.0	Y	ES 1,2,3,4,7,8-HxCDF	72.9	19.0	202	Y
1,2,3,6,7,8-HxCDF	54.0	42.0	65.0	Y	ES 1,2,3,6,7,8-HxCDF	74.4	21.0	159	Y
2,3,4,6,7,8-HxCDF	55.6	39.0	65.0	Y	ES 2,3,4,6,7,8-HxCDF	72.0	17.0	205	Y
1,2,3,7,8,9-HxCDF	54.0	35.0	78.0	Y	ES 1,2,3,7,8,9-HxCDF	80.3	22.0	176	Y
1,2,3,4,6,7,8-HpCDF	54.6	41.0	61.0	Y	ES 1,2,3,4,6,7,8-HpCDF	76.4	21.0	158	Y
1,2,3,4,7,8,9-HpCDF	54.7	39.0	69.0	Y	ES 1,2,3,4,7,8,9-HpCDF	76.4	20.0	186	Y
OCDF	110	63.0	170	Y	ES OCDF	147	N/A	N/A	N/A
					CS 2,3,7,8 TCDD	8.73	3.10	19.1	Y

Summary of Results: I-TEF TEQ

Enthalpy Ultratrace Batch

10113

Method 8290

Analyte	Method Blank pg/g	P807022-01 (404862-001) pg/g	P807022-02 (404862-002) pg/g	P807022-03 (404862-003) pg/g	P807022-05 (404862-004) pg/g	P807022-06 (404862-005) pg/g	P807022-07 (404862-006) pg/g
2,3,7,8-TCDD	(0.0205)	(0.00848)	(0.0139)	(0.0124)	(0.0103)	(0.0138)	(0.0152)
1,2,3,7,8-PeCDD	(0.0425)	(0.0188)	(0.0256)	(0.019)	(0.0173)	(0.0276)	(0.0289)
1,2,3,4,7,8-HxCDD	(0.0271)	(0.013)	(0.0206)	(0.0213)	(0.0233)	(0.024)	(0.0279)
1,2,3,6,7,8-HxCDD	(0.0295)	(0.0153)	(0.0244)	(0.0245)	(0.0237)	(0.0265)	(0.0317)
1,2,3,7,8,9-HxCDD	0.13	0.072	(0.0235)	[0.106]	(0.0248)	(0.0251)	(0.0305)
1,2,3,4,6,7,8-HpCDD	(0.0301)	(0.0137)	(0.0194)	(0.0281)	[0.102]	(0.0194)	[0.174]
OCDD	(0.118)	0.370	(0.0779)	0.269	0.519	[0.223]	1.03
2,3,7,8-TCDF	(0.0114)	(0.0073)	(0.0074)	(0.00673)	(0.00816)	(0.00823)	(0.00849)
1,2,3,7,8-PeCDF	(0.0168)	(0.00804)	(0.00725)	(0.00664)	(0.00683)	(0.00807)	(0.00779)
2,3,4,7,8-PeCDF	(0.0196)	(0.00858)	(0.00801)	(0.00704)	(0.00748)	(0.00842)	(0.00937)
1,2,3,4,7,8-HxCDF	(0.021)	(0.0109)	(0.0119)	(0.00987)	(0.0111)	(0.0123)	(0.0124)
1,2,3,6,7,8-HxCDF	(0.0199)	(0.0106)	(0.0113)	(0.0094)	(0.0106)	(0.0111)	(0.0118)
2,3,4,6,7,8-HxCDF	(0.02)	(0.0111)	(0.0119)	(0.0101)	(0.0112)	(0.0117)	(0.0125)
1,2,3,7,8,9-HxCDF	(0.026)	(0.0121)	(0.0136)	(0.0122)	(0.0141)	(0.0135)	(0.0153)
1,2,3,4,6,7,8-HpCDF	(0.0174)	[0.0395]	(0.0169)	(0.0122)	(0.00832)	(0.0127)	(0.013)
1,2,3,4,7,8,9-HpCDF	(0.0246)	(0.0167)	(0.0249)	(0.0177)	(0.0113)	(0.018)	(0.0186)
OCDF	(0.0246)	(0.0179)	(0.0309)	(0.0227)	(0.0195)	(0.0255)	(0.0484)
ND = (DL) EMPC = [ ]							
ITEF TEQ (ND=0; EMPC=0)	0.0134	0.00769	0.00	0.00256	0.000911	0.0000305	0.00139
ITEF TEQ (ND=0; EMPC=EMPC)	0.0134	0.00797	0.00	0.0108	0.00153	0.000223	0.00277
ITEF TEQ (ND=DL/2; EMPC=0)	0.0478	0.0232	0.0221	0.0205	0.0189	0.0230	0.0265
ITEF TEQ (ND=DL/2; EMPC=EMPC)	0.0478	0.0234	0.0221	0.0287	0.0195	0.0232	0.0279
ITEF TEQ (ND=DL; EMPC=EMPC)	0.0822	0.0389	0.0443	0.0466	0.0375	0.0462	0.0530
Lab Sample ID	MB1_10113_DF	J130_10113_001	J130_10113_002	J130_10113_003	J130_10113_004	J130_10113_005	J130_10113_006

Summary of Results: WHO-2005 TEF TEQ

Enthalpy Ultratrace Batch
10113

Method 8290

Analyte	Method Blank pg/g	P807022-01 (404862-001) pg/g	P807022-02 (404862-002) pg/g	P807022-03 (404862-003) pg/g	P807022-05 (404862-004) pg/g	P807022-06 (404862-005) pg/g	P807022-07 (404862-006) pg/g
2,3,7,8-TCDD	(0.0205)	(0.00848)	(0.0139)	(0.0124)	(0.0103)	(0.0138)	(0.0152)
1,2,3,7,8-PeCDD	(0.0425)	(0.0188)	(0.0256)	(0.019)	(0.0173)	(0.0276)	(0.0289)
1,2,3,4,7,8-HxCDD	(0.0271)	(0.013)	(0.0206)	(0.0213)	(0.0233)	(0.024)	(0.0279)
1,2,3,6,7,8-HxCDD	(0.0295)	(0.0153)	(0.0244)	(0.0245)	(0.0237)	(0.0265)	(0.0317)
1,2,3,7,8,9-HxCDD	0.134	0.072	(0.0235)	[0.106]	(0.0248)	(0.0251)	(0.0305)
1,2,3,4,6,7,8-HpCDD	(0.0301)	(0.0137)	(0.0194)	(0.0281)	[0.102]	(0.0194)	[0.174]
OCDD	(0.118)	0.37	(0.0779)	0.269	0.519	[0.223]	1.03
2,3,7,8-TCDF	(0.0114)	(0.0073)	(0.0074)	(0.00673)	(0.00816)	(0.00823)	(0.00849)
1,2,3,7,8-PeCDF	(0.0168)	(0.00804)	(0.00725)	(0.00664)	(0.00683)	(0.00807)	(0.00779)
2,3,4,7,8-PeCDF	(0.0196)	(0.00858)	(0.00801)	(0.00704)	(0.00748)	(0.00842)	(0.00937)
1,2,3,4,7,8-HxCDF	(0.021)	(0.0109)	(0.0119)	(0.00987)	(0.0111)	(0.0123)	(0.0124)
1,2,3,6,7,8-HxCDF	(0.0199)	(0.0106)	(0.0113)	(0.0094)	(0.0106)	(0.0111)	(0.0118)
2,3,4,6,7,8-HxCDF	(0.02)	(0.0111)	(0.0119)	(0.0101)	(0.0112)	(0.0117)	(0.0125)
1,2,3,7,8,9-HxCDF	(0.026)	(0.0121)	(0.0136)	(0.0122)	(0.0141)	(0.0135)	(0.0153)
1,2,3,4,6,7,8-HpCDF	(0.0174)	[0.0395]	(0.0169)	(0.0122)	(0.00832)	(0.0127)	(0.013)
1,2,3,4,7,8,9-HpCDF	(0.0246)	(0.0167)	(0.0249)	(0.0177)	(0.0113)	(0.018)	(0.0186)
OCDF	(0.0246)	(0.0179)	(0.0309)	(0.0227)	(0.0195)	(0.0255)	(0.0484)
ND = (DL) EMPC = [ ]							
WHO-2005 TEQ (ND=0; EMPC=0)	0.0134	0.00769	0.00	0.00256	0.000911	0.0000305	0.00139
WHO-2005 TEQ (ND=0; EMPC=EMPC)	0.0134	0.00797	0.00	0.0108	0.00153	0.000223	0.00277
WHO-2005 TEQ (ND=DL/2; EMPC=0)	0.0562	0.0267	0.0276	0.0242	0.0220	0.0290	0.0320
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)	0.0562	0.0269	0.0276	0.0325	0.0226	0.0290	0.0334
WHO-2005 TEQ (ND=DL; EMPC=EMPC)	0.0991	0.0462	0.0552	0.0544	0.0441	0.0580	0.0647
Lab Sample ID	MB1_10113_DF	J130_10113_001	J130_10113_002	J130_10113_003	J130_10113_004	J130_10113_005	J130_10113_006

Enthalpy Analytical Narrative Summary

Company	Enthalpy Orange	**Client #**	404862
Analyst	Laura Boivin	**Job #**	J130
Parameters	Dioxins and Furans	**# Samples**	6

Custody	Enthalpy Analytical, Inc. Wilmington, NC office received the sample (via FedEx) by Robin Appelle on 7/27/2018. The sample was received having a temperature of 0.9 ºC, in good condition. Prior to, during, and after analysis, the samples were stored in the laboratory with access only by authorized personnel of Enthalpy Analytical, Inc.
Analysis	The samples were analyzed by EPA Method 8290 for PCDD/PCDFs by HRGC/HRMS. The analysis was done using the following instrumentation; High-Resolution-GC - Agilent Tech Model# 6890, AutoSampler – CTC A200 and High-Resolution Mass-Spec. – Waters (Gandalf). The samples were spiked with ES (extraction standard) and then extracted by soxhlet (with toluene), spiked with AS (alternate standard) after solvent exchange, then the samples were split (½ split for archive) ½ split went through our cleanup procedure, then transferred final extract to an autosampler vial and spiked then spiked with 20 µL of JS (injection standard solution) prior to analysis.
Calibration	The analytes and labeled standards in the initial calibration exhibited RSDs less than 20%. All compounds in the continuing calibration tests met acceptance criteria.
QC Notes	The HRMS system displayed mass resolving power of at least 10,000 during the analysis. Labeled and sampling (surrogate) standard recoveries were acceptable. The samples were extracted within the 30-day from collection holding time and analyzed within the 45-day from extraction to analysis holding time required by the method.
Reporting Notes	The TEQ was calculated and reported to the client using the I-TEFs and the WHO-2005 TEF, calculated several different ways. We also reported Totals and Detection Limits. The results presented in this report are representative of the samples as provided to the laboratory. The samples, calibrations and standards for the data presented in this report were analyzed at 2714 Exchange Drive, Wilmington, NC 28405.

General Reporting Notes – Data Qualifiers

The following are general reporting notes that are applicable to all Enthalpy Analytical, Inc.-Wilmington, NC data reports, unless specifically noted otherwise.

General Data Qualifiers / Data Attributes

- B – The analyte was found in the method blank, at a concentration that was at least 10% of the concentration in the sample.
- C – Two or more congeners co-elute. In EDDs, C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group are shown with the number of the lowest IUPAC co-eluter**.**
- E – The reported concentration exceeds the calibration range (upper point of the calibration curve).
- EMPC – Represents an estimated maximum possible concentration. EMPCs arise in cases where the signal/noise ratio is not sufficient for peak identification (the determined ion-abundance ratio is outside the allowed theoretical range), or where there is a co-eluting interference.
- J – Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve).
- ND – Indicates a non-detect.
- NR – Indicates a value that is not reportable.
- PR – Due to interference, the associated congener is poorly resolved.
- DI – Indicates the presence of a quantitative interference.
- SI – Denotes “Single Ion Mode” and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.
- U – The analyte was not detected. The Estimated Detection Limit (EDL) may be reported for this analyte.
- V – The labeled standard recovery was found to be outside of the method control limits.

DRBC/TMDL Specific Data Qualifiers / Data Attributes

- J – The reported result is an estimate. The value is less than the minimum calibration level but greater than the Estimated Detection Limit (EDL).
- U – The analyte was not detected in the sample at the Estimated Detection Limit (EDL).
- E – The reported concentration is an estimate. The value exceeds the upper calibration range (upper point of the calibration curve).

- D – Dilution Data. Result was obtained from the analysis of a dilution.
- B – Analyte found in the sample and associated method blank.
- Cxx – Co-elutes with the indicated congener, data is reported under the lowest IUPAC congener. 'xx' denotes the IUPAC number with the lowest numerical designated congener.
- NR – Analyte is not reportable because of problems in sample preparation or analysis.
- V – Labeled standard recovery is not within method control limits.
- X – Results from re-injection/repeat/second-column analysis.
- EMPC – Estimated Maximum Possible Concentration. Indicates that a peak is identified but did not meet the method specified ion-abundance ratio.

Lab Identifiers

- AR – Indicates use of the archived portion of the sample extract.
- CU – Indicates a sample that required additional clean-up prior to HRMS injection/processing.
- D – Indicates a dilution of the sample extract. The number that follows the "D" indicates the dilution factor.
- DE – Indicates a dilution performed with the addition of ES (Extraction Standard) solution.
- DUP – Designation for a duplicate sample.
- MS – Designation for a matrix spike.
- MSD – Designation for a matrix spike duplicate.
- RJ – Indicates a reinjection of the sample extract.
- S – Indicates a sample split. The number that follows the "S" indicates the split factor.

ENTHALPY ANALYTICAL

Analytical Summary

EU Job #: J130	**Report Due Date:** 10-Aug-18
Client Project #: 404862	**Turn-Around Time:** 10 business days
Client PO #:	**EU Project Manager:** Lindsay Boone

Client Information

Company Name:	Ethalpy-Orange
Send Report to:	Ranjit Clarke
Email(s):	ranjit.clarke@enthalpy.com
Address:	1 Park Plaza Suite 1000
	Irvine, CA 92614
Phone:	714 771-6900

Job Specific Details

Analysis/Methods Requested:	Method 8290
Matrix:	Solid
Qty. of Samples for Analysis:	6
Samples on Hold:	0
Sample Storage Location:	R-1
Sample Condition:	Good
Sample Temperatures (°C):	0.9
Sample Collection Date:	23-Jul-18
Date Samples Received:	27-Jul-18

Job/Client Specific - Special Instructions

Level 2

ENTHALPY ANALYTICAL

Sample Inventory Report, Receipt and Log-In Form (Non-Air)

Client/Company: EA Orange	**EU Job #:** J130		
Client Project #: 404862	**Date Samples Arrived:** 27-Jul-18		
Client PO #:	**Time Samples Arrived:** 10:14 AM	**Received by Int.:**	RAA

Sample Inventory

Lab Sample ID	Client Sample ID	Client Sample Description	Matrix	Qty.	Sample Collection Date	Sample Collection Time	Notes:
J130_001	P807022-01 (404862-001)	Solid	Soil	1	23-Jul-18	7:50 AM	
J130_002	P807022-02 (404862-002)	Solid	Soil	1	23-Jul-18	8:00 AM	
J130_003	P807022-03 (404862-003)	Solid	Soil	1	23-Jul-18	8:07 AM	
J130_004	P807022-05 (404862-004)	Solid	Soil	1	23-Jul-18	8:43 AM	
J130_005	P807022-06 (404862-005)	Solid	Soil	1	23-Jul-18	8:45 AM	
J130_006	P807022-07 (404862-006)	Solid	Soil	1	23-Jul-18	8:50 AM	

Sample Receipt & Log-in Details

Courier: FedEx		**Container Condition**	**Tracking Number(s):** 772829374000		
# of Boxes: 0	**# of Coolers: 1**	Intact			
Sample Condition:	Good		**Custody Seals (cont.):** NO	**Seal Condition:**	N/A
Sample Temperature(s) in °C (coolers):	0.9		**Custody Seals (samples):** NO	**Seal Condition:**	N/A
Perservative Type: Ice			**Chain of Custody:** YES	**COC Type:**	Client
Sample Temperature(s) in °C (boxes):	N/A		**COC Anomaly Details (if applicable):**		
Perservative Type: N/A					
Storage Location: R-1		**All Samples Rec'd:** ☑ YES ☐ NO			

Sample Custodian Signature: _____ **Date:** 7/27/18

Project Manager Signature: _____ **Date:** 7/27/18

J130

Enthalpy Analytical
Formerly Associated Labs
1 Park Plaza, Suite 1000
Irvine, CA 92614
Tel: 714.771.6900 Fax: 714.538.1209
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Subcontract Laboratory:

Enthalpy - Wilmington - Su
2714 Exchange Drive
Wilmington, NC 28405
910-212-5866
ATTN: Bryan Vining
PO# N/A

Project: 404862 **Due:** 08/10/18
PM: Ranjit Clarke
Email: ranjit.clarke@enthalpy.com
CC: incomingreports@enthalpy.com
Require: ☑ EDD ☐ EDF ☐ EDT
Report To: ☐ MDL

Note: Dioxins/Furans full list

Standard 10 day TAT

Matrix	Sampled	Sample ID	Analysis	Comment
Solid	07/23/18 07:50	P807022-01 (404862-001)	8290 Out	Dioxins/Furans
Solid	07/23/18 08:00	P807022-02 (404862-002)	8290 Out	Dioxins/Furans
Solid	07/23/18 08:07	P807022-03 (404862-003)	8290 Out	Dioxins/Furans
Solid	07/23/18 08:43	P807022-05 (404862-004)	8290 Out	Dioxins/Furans
Solid	07/23/18 08:45	P807022-06 (404862-005)	8290 Out	Dioxins/Furans
Solid	07/23/18 08:50	P807022-07 (404862-006)	8290 Out	Dioxins/Furans

Note:

Relinquished By	**Received By:**
Date/Time 7/26/18 1500	Date/Time 7/27/18 1014 0.9°
Date/Time	Date/Time

404862-01 07/26/18 11:45 RC

This Is The Last Page Of This Report.

ENTHALPY ANALYTICAL

26 November 2018

Dr. Scarlett Xihong Zhai, PE
Project Manager
DTSC
5796 Corporate Avenue
Cypress, CA 90630
Ph: (714) 484-5316
Email: xihong.zhai@dtsc.ca.gov

Re: Work Plan – Environmental Assessment
Southern California Edison Substation
Agua Mansa Commerce Park
1500 Rubidoux Boulevard, Riverside, CA 92509
Langan Project No.: 721013501

Dear Dr. Zhai:

Langan Engineering & Environmental Services Inc. (Langan) has prepared this Work Plan to conduct a subsurface soil sampling investigation in and around the Southern California Edison (SCE) substation within the former Riverside Cement Plant (RCP). The objective of the subsurface soil sampling is to determine the potential presence of chemicals of concern (COCs) associated with the substation.

This work plan presents our pre-field activities and sampling methodology. It also presents the chemical analyses to be performed as part of the field program.

A site visit was conducted on 20 September 2018 with representatives from SCE, Department of Toxic Substance Control (DTSC), Martin Marietta, and Crestmore Redevelopment LLC to discuss the proposed investigation activities, field equipment to be used, logistics/requirements for working in and around the SCE substation, and schedule for implementing the field work.

Based on discussions with the DTSC during the site visit on 20 September 2018, Langan and DTSC agreed to conduct a subsurface sampling event that will include fourteen (14) shallow soil borings to a maximum of five (5) feet below ground surface (bgs).

However, based on discussions with SCE representatives, SCE has an internal protocol for substation decommissioning, which requires sampling on 10 feet by 10 feet grid of the entire footprint of the substation. This grid spacing increased the total number of soil sampling locations to forty-eight (48). SCE requires the borings to be initially advanced to five (5) feet bgs and field-assessed to determine whether borings need to be drilled deeper than 5 feet (see Figure 1). All 14 of the original DTSC shallow soil borings will be collected and analyzed for all the constituents listed below. Additionally, asphalt and concrete at the site will be sampled in accordance with EPA Region 1 Standard Operating Procedures for Sampling of Porous Surfaces for Polychlorinated Biphenyls (EPA Region 1 SOP).

During the site meeting, the SCE representatives informed the group that their substations typically have a grounding grid buried beneath the substation footprint at approximately 12 – 18 inches below the ground surface. The grounding grid is typically installed with a 1 foot by 1 foot spacing throughout the substations. Due to the age of this substation (built in the 1960s), SCE indicated they did not have as-built drawings showing the substation layout and the grounding grid system; therefore, they are not certain as to the presence and/or configuration of the grid system. An Underground Utility Locator firm will be used to identify where the grounding grid system is located to avoid contacting the grounding grid during installation of the soil borings. As part of their requirements for investigating substations, SCE indicated that the upper 12-inches of material/soil will be removed using hand tools such as a trowel and/or shovel to expose the grounding grid prior to advancing drilling equipment. Samples will be collected in the upper 12-inches as indicated below.

During drilling, soil samples will be collected from 0.25-feet, 0.5-feet, 2-feet, and 5-feet bgs. The samples will be analyzed for total petroleum hydrocarbons (TPH) using EPA Method 8015M (carbon chain), Title 22 metals using EPA Method 6000/7000 series, Polychlorinated Biphenyls (PCBs) using EPA Method 8082B, and hexavalent chromium using EPA Method 7199. The samples at 0.25-feet bgs will be analyzed for PCBs using EPA Method 8082B only. The sample at 0.25-feet bgs is being collected as a shallow soil sample since the source of the oil would be from spills or leaks from the aboveground oil-filled equipment. In the experience of SCE working with the EPA, the EPA would be most interested in the uppermost soil sample collected at 0.25-feet. If PCBs in the soil is less than 1 mg/kg in that shallow sample, EPA has stated that the source oil would not be greater than 50 mg/kg, and the Site would not meet the threshold for the application of Toxic Substances Control Act (TSCA) assessment and management of material with PCBs. Two of the DTSC samples, SCE-13 and SCE-27, will also be sampled for semivolatile organic compounds (SVOCs) using EPA Method 8270C and polycyclic aromatic hydrocarbons (PAHs) using EPA Method 8270C-SIM due to potential staining that was observed during the site visit. Further details of the sampling program are presented below.

WORK PLAN

- Pre-Field Activities – The substation and associated RCP infrastructure is still in place and active. Prior to commencing the field activities, Langan will coordinate with SCE and other stakeholders who are supplied power from the substation to properly de-energize the system prior to conducting field activities. In addition, prior to conducting field activities, Underground Services Alert (USA) will be contacted a minimum of 48-hours in advance to locate and mark known subsurface utilities within the proposed investigation area. In addition, a private geophysical locating firm will be contracted to clear the proposed borehole locations of potential underground utilities using ground penetrating radar (GPR) and other subsurface utility location techniques. Langan will mark the proposed borehole locations in advance of the utility clearance. During the mark-out, Langan will coordinate with an onsite RCP representative and the SCE representative who is familiar with the substation area to confirm that each of the proposed boring

locations is free of known subsurface utilities. Prior to field work activities, Langan will attempt to identify and expose the grounding grid using hand tools as discussed above.

- The field work will be conducted under an existing Health and Safety Plan that was prepared for previous site investigations on site (refer to Appendix C of the Site Assessment Work Plan (SAWP), Agua Mansa Commerce Park, Jurupa Valley, Riverside County, California dated 1 June 2018). In addition, a job safety assessment will be prepared to address the potential electrical hazards for the proposed investigation including the development and implementation of a lock-out / tag-out procedure.

- Field Sampling Activities – The field activities will be observed on a full-time basis by a degreed, experienced Langan engineer, geologist or scientist under the supervision of a licensed professional geologist or engineer. In addition, an SCE representative will be onsite to assist in locating the grounding grid, render repairs to the grounding grid if damage occurs, and observe the field activities. At no time will field activities be conducted without an SCE representative present on site. Field observations will be recorded on field data sheets. Sampling tools, drilling equipment and other equipment coming into contact with soils will be decontaminated prior to use at each investigation location using a non-phosphate detergent such as Alconox or equivalent and rinsed with clean water and/or a wire-brush to remove soil and debris from the tools. All field activities will be completed wearing fire retardant clothing (FRC), as required by SCE.

- The boreholes will be advanced using a direct push drill rig. A shovel and/or hand auger will be used to initially advance the boreholes to a depth of at least 1 foot bgs. After 1 foot bgs, the boreholes will be advanced using the direct-push drill rig to a total depth of 5 feet bgs. Soil samples will be collected at 0.25-feet, 0.5-feet, 2-feet, and 5-feet bgs. The samples collected at 0.25-feet and 0.5-feet bgs will be collected using the hand auger or trowel. The samples collected at 2-feet and 5-feet bgs will be collected using the direct-push rig equipped with a core barrel lined with an acetate sleeve. The soil samples will be screened in the field using a photoionization detector (PID), visually examined for staining and/or odors, and classified in the field in accordance with the Unified Soil Classification System (USCS). The soil samples collected from 0.25-feet, 0.5-feet, 2-feet, and 5-feet bgs will be transferred to laboratory supplied sample containers for the analytical testing, labeled, stored on ice, and transferred to a State-certified analytical laboratory under chain-of-custody protocol. The soil samples collected from 0.5-feet and 2-feet bgs will be analyzed for the constituents listed below. The soil samples collected from 0.25-feet bgs will be analyzed for PCBs only. The soil samples collected from 5-feet bgs will be placed on hold pending results from the 0.25-feet, 0.5-feet, and 2-feet bgs soil samples. DTSC samples SCE-13 and SCE-27 from 0.5-feet and 2-feet bgs will be analyzed for SVOCs and PAHs in addition to the constituents below due to staining that was observed during the site visit. In addition, any other stained or discolored soils observed during the sampling event will be analyzed for the constituents listed below.

- There are four (4) concrete pads on the site, located underneath the 4 transformers. Concrete chip samples will be collected from the four corners of each transformer pad

in accordance with the EPA Region 1 SOP. Should evidence of oil spills be observed (i.e., dark colored stains, light discolored areas) during the sampling event, additional concrete samples will be taken. The concrete chip samples will be transferred to laboratory supplied sample containers for the analytical testing, labeled, stored on ice, and transferred to a State-certified analytical laboratory under chain-of-custody protocol. The concrete chip samples will be analyzed for PCBs.

- Soil and concrete chip samples will be separated into composite groups based on their proximity to each other. Soil samples will be separated into composite groups of six (6) soil samples, and concrete samples will be separated into composite groups of four (4) concrete chip samples. Samples collected from each depth interval will be lab-composited within the composite group to create one representative sample from that depth. All of the soil composite groups will have two discrete samples (0.5-feet and 2-feet bgs) analyzed for TPH, hexavalent chromium, and Title 22 metals and three composite samples (0.25-feet, 0.5-feet, and 2-feet bgs) analyzed for PCBs to satisfy SCE sampling and analysis requirements. All of the concrete composite groups will have one composite sample analyzed for PCBs to satisfy SCE sampling requirements.

- The 14 DTSC soil sampling locations will be analyzed for Title 22 metals, hexavalent chromium, TPH, and PCBs from the same depth intervals described above regardless of their composite groups. If only one DTSC soil sample is located within a composite group, then that sample will be selected as the discrete sample for TPH, hexavalent chromium, and Title 22 metals. If more than one DTSC soil sample is located within a composite group, then multiple discrete samples will be analyzed for TPH, hexavalent chromium, and Title 22 metals. All 14 DTSC soil samples will be analyzed as discrete samples for PCBs. In addition, two DTSC soil samples (SCE-13 and SCE-27) will also be analyzed for SVOCs and PAHs for the 0.5-feet and 2-feet bgs depth intervals due to soil staining.

- Decontamination - To reduce the potential for cross contamination, drilling and sampling equipment used during the investigation activities will be thoroughly cleaned, before and after each use with a non-phosphate detergent such as Alconox or equivalent and rinsed with clean water or a wire-brush to remove soil and debris from the tools.

- Waste Management – The boreholes will be backfilled with a bentonite/grout and soil cuttings mixture.

- Analytical Testing – Samples will be analyzed in accordance with the DTSC and SCE agreed-upon sampling and analysis plan. To manage analytical costs, soil samples will be separated into composite groups of six (6) soil samples and concrete samples will be separated into composite groups of four (4) concrete chip samples. Depending on the analysis, either the samples from the composite groups will be lab-composited and analyzed or one discrete sample from each composite group will be selected and analyzed. Where there are composite samples obtained, laboratory reporting limits (RLs) will need to be less than the screening level divided by the number of samples in the composite. The samples will be analyzed for the following:

- PCBs by EPA by EPA Method 8082 (56 samples)
- Title 22 Metals by EPA Method 6010/7000 (28 samples)
- Hexavalent chromium by EPA Method 7199 (28 samples)
- TPH-carbon chain by EPA Method 8015 modified (28 samples)
- SVOCs by EPA Method 8270C (4 samples)
- PAHs by EPA Method 8270C-SIM (4 samples)

Table 1 summarizes the sample locations, depths, and analytical testing. The samples will be analyzed on a five day or shorter turnaround basis.

- Report Preparation – Upon completion of the field activities and analytical testing Langan will prepare a report summarizing our field observations and results of the analytical testing. We will provide a draft copy of the report to Crestmore Redevelopment LLC for review and comment. Upon receipt of Crestmore Redevelopment LLC comments, Langan will prepare a final report for submittal to DTSC and SCE for their review and comments. Comments received from DTSC and SCE will be reviewed and incorporated into the Final Report, as necessary, and will be submitted to appropriate stakeholders.

If you have questions related to this Work Plan, please do not hesitate to contact Mr. Brad A. McCardell, PG or the undersigned.

Sincerely,

Neil Shukla
Associate

Langan Engineering and Environmental Services, Inc.

Attachments: Figure 1 and Table 1

Cc: Brad A. McCardell, PG.



Legend

- DTSC Sample Location (SCE-13)
- Proposed Sample Location (SCE-48)
- Sampling Grid - 10 ft. x 10 ft.
- Soil Sample Composite Groups
- Approximate Substation Boundary

Notes:
1. Aerial imagery provided by Langan's subscription to Nearmap.com. Aerial flown on 6/29/2018.
2. "Grounding Plan" overlay provided by Southern California Edison Company, dated 2 August 1960.
3. All features shown are approximate

15 0 15
SCALE IN FEET

LANGAN
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PANAMA DUBAI ISTANBUL
Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

Project	AGUA MANSA COMMERCE PARK JURUPA VALLEY RIVERSIDE COUNTY CALIFORNIA
Drawing Title	SCE SUBSTATION PROPOSED SAMPLING PLAN
Project No.	721013501
Date	NOVEMBER 2018
Scale	1 " = 15 '
Drawn By	OG
Figure	1

G-3554

Path: \\langan.com\data\PAR\other\BSAYLOR\GIS_Projects\Agua_Mansa_Crestmore\ArcMap_Documents\Environmental_Figures\SAWP\SCE_Substation_Sampling_20181004.mxd

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Table 1: Proposed Sampling Locations and Analytical Testing

STUDY AREA	FEATURE	Boring ID	Boring Depth (ft bgs)	No. Samples Collected	Analytical Testing					
					Total Petroleum Hydrocarbons (TPH) EPA Method 8015 modified	Hexavalent Chromium (CrVI) EPA Method 7199	Title 22 Metals EPA Method 6010/7000	Semivolatile Organic Compounds (SVOCs) EPA Method 8270C	Polycyclic Aromatic Hydrocarbons (PAHs) EPA Method 8270C-SIM	Polychlorinated Biphenyls (PCBs) EPA Method 8082
MAP	SCE Substation	SCE-1	5	4 (0.25', 0.5', 2', 5')	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE and DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE and DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE and DTSC	NA	NA	3 Composite Samples (0.25', 0.5' and 2') for SCE; 2 Discrete Samples (0.5' and 2') for DTSC
		SCE-2	5	4 (0.25', 0.5', 2', 5')						
		SCE-3	5	4 (0.25', 0.5', 2', 5')						
		SCE-7	5	4 (0.25', 0.5', 2', 5')						
		SCE-8	5	4 (0.25', 0.5', 2', 5')						
		SCE-9	5	4 (0.25', 0.5', 2', 5')						
		SCE-4	5	4 (0.25', 0.5', 2', 5')	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE and DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE and DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE and DTSC	NA	NA	3 Composite Samples (0.25', 0.5' and 2') for SCE; 2 Discrete Samples (0.5' and 2') for DTSC
		SCE-5	5	4 (0.25', 0.5', 2', 5')						
		SCE-6	5	4 (0.25', 0.5', 2', 5')						
		SCE-10	5	4 (0.25', 0.5', 2', 5')						
		SCE-11	5	4 (0.25', 0.5', 2', 5')						
		SCE-12	5	4 (0.25', 0.5', 2', 5')						
		SCE-13	5	4 (0.25', 0.5', 2', 5')	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE; 2 Additional Discrete Samples (0.5' and 2') for DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE; 2 Additional Discrete Samples (0.5' and 2') for DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE; 2 Additional Discrete Samples (0.5' and 2') for DTSC	2 Discrete Samples (0.5' and 2') for DTSC	2 Discrete Samples (0.5' and 2') for DTSC	3 Composite Samples (0.25', 0.5' and 2') for SCE; 4 Discrete Samples (0.5' and 2') for DTSC
		SCE-14	5	4 (0.25', 0.5', 2', 5')						
		SCE-15	5	4 (0.25', 0.5', 2', 5')						
		SCE-16	5	4 (0.25', 0.5', 2', 5')						
		SCE-21	5	4 (0.25', 0.5', 2', 5')						
		SCE-22	5	4 (0.25', 0.5', 2', 5')						
		SCE-17	5	4 (0.25', 0.5', 2', 5')	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE and DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE and DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE and DTSC	NA	NA	3 Composite Samples (0.25', 0.5' and 2') for SCE; 2 Discrete Samples (0.5' and 2') for DTSC
		SCE-18	5	4 (0.25', 0.5', 2', 5')						
		SCE-23	5	4 (0.25', 0.5', 2', 5')						
		SCE-24	5	4 (0.25', 0.5', 2', 5')						
		SCE-30	5	4 (0.25', 0.5', 2', 5')						
		SCE-31	5	4 (0.25', 0.5', 2', 5')						

Table 1: Proposed Sampling Locations and Analytical Testing

STUDY AREA	FEATURE	Boring ID	Boring Depth (ft bgs)	No. Samples Collected	Analytical Testing					
					Total Petroleum Hydrocarbons (TPH) EPA Method 8015 modified	Hexavalent Chromium (CrVI) EPA Method 7199	Title 22 Metals EPA Method 6010/7000	Semivolatile Organic Compounds (SVOCs) EPA Method 8270C	Polycyclic Aromatic Hydrocarbons (PAHs) EPA Method 8270C-SIM	Polychlorinated Biphenyls (PCBs) EPA Method 8082
MAP	SCE Substation	SCE-19	5	4 (0.25', 0.5', 2', 5')	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE; 2 Additional Discrete Samples (0.5' and 2') for DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE; 2 Additional Discrete Samples (0.5' and 2') for DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE; 2 Additional Discrete Samples (0.5' and 2') for DTSC	NA	NA	3 Composite Samples (0.25', 0.5' and 2') for SCE; 4 Discrete Samples (0.5' and 2') for DTSC
		SCE-20	5	4 (0.25', 0.5', 2', 5')						
		SCE-25	5	4 (0.25', 0.5', 2', 5')						
		SCE-26	5	4 (0.25', 0.5', 2', 5')						
		SCE-32	5	4 (0.25', 0.5', 2', 5')						
		SCE-33	5	4 (0.25', 0.5', 2', 5')						
		SCE-27	5	4 (0.25', 0.5', 2', 5')	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE; 4 Additional Discrete Samples (0.5' and 2') for DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE; 4 Additional Discrete Samples (0.5' and 2') for DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE; 4 Additional Discrete Samples (0.5' and 2') for DTSC	2 Discrete Samples (0.5' and 2') for DTSC	2 Discrete Samples (0.5' and 2') for DTSC	3 Composite Samples (0.25', 0.5' and 2') for SCE; 6 Discrete Samples (0.5' and 2') for DTSC
		SCE-28	5	4 (0.25', 0.5', 2', 5')						
		SCE-29	5	4 (0.25', 0.5', 2', 5')						
		SCE-34	5	4 (0.25', 0.5', 2', 5')						
		SCE-37	5	4 (0.25', 0.5', 2', 5')						
		SCE-43	5	4 (0.25', 0.5', 2', 5')						
		SCE-35	5	4 (0.25', 0.5', 2', 5')	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE; 4 Additional Discrete Samples (0.5' and 2') for DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE; 4 Additional Discrete Samples (0.5' and 2') for DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE; 4 Additional Discrete Samples (0.5' and 2') for DTSC	NA	NA	3 Composite Samples (0.25', 0.5' and 2') for SCE; 6 Discrete Samples (0.5' and 2') for DTSC
		SCE-36	5	4 (0.25', 0.5', 2', 5')						
		SCE-41	5	4 (0.25', 0.5', 2', 5')						
		SCE-42	5	4 (0.25', 0.5', 2', 5')						
		SCE-47	5	4 (0.25', 0.5', 2', 5')						
		SCE-48	5	4 (0.25', 0.5', 2', 5')						
		SCE-38	5	4 (0.25', 0.5', 2', 5')	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE and DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE and DTSC	2 Discrete Samples Per Composite Group (0.5' and 2') for SCE and DTSC	NA	NA	3 Composite Samples (0.25', 0.5' and 2') for SCE; 2 Discrete Samples (0.5' and 2') for DTSC
		SCE-39	5	4 (0.25', 0.5', 2', 5')						
		SCE-40	5	4 (0.25', 0.5', 2', 5')						
		SCE-44	5	4 (0.25', 0.5', 2', 5')						
		SCE-45	5	4 (0.25', 0.5', 2', 5')						
		SCE-46	5	4 (0.25', 0.5', 2', 5')						

Table 1: Proposed Sampling Locations and Analytical Testing

STUDY AREA	FEATURE	Boring ID	Boring Depth (ft bgs)	No. Samples Collected	Analytical Testing					
					Total Petroleum Hydrocarbons (TPH) EPA Method 8015 modified	Hexavalent Chromium (CrVI) EPA Method 7199	Title 22 Metals EPA Method 6010/7000	Semivolatile Organic Compounds (SVOCs) EPA Method 8270C	Polycyclic Aromatic Hydrocarbons (PAHs) EPA Method 8270C-SIM	Polychlorinated Biphenyls (PCBs) EPA Method 8082
MAP	SCE Substation	Transformer Pad-1A	-	1	NA	NA	NA	NA	NA	1 Composite Sample for SCE
		Transformer Pad-1B	-	1						
		Transformer Pad-1C	-	1						
		Transformer Pad-1D	-	1						
		Transformer Pad-2A	-	1	NA	NA	NA	NA	NA	1 Composite Sample for SCE
		Transformer Pad-2B	-	1						
		Transformer Pad-2C	-	1						
		Transformer Pad-2D	-	1						
		Transformer Pad-3A	-	1	NA	NA	NA	NA	NA	1 Composite Sample for SCE
		Transformer Pad-3B	-	1						
		Transformer Pad-3C	-	1						
		Transformer Pad-3D	-	1						
		Transformer Pad-4A	-	1	NA	NA	NA	NA	NA	1 Composite Sample for SCE
		Transformer Pad-4B	-	1						
		Transformer Pad-4C	-	1						
		Transformer Pad-4D	-	1						
Notes:			28		28	28	4	4	56	

ft bgs = feet below ground surface
MAP = Maintenance, Administration, and Packaging (refer to Langan's report titled Summary of Findings, Agua Mansa Commerce Park, Jurupa Valley, Riverside County, California dated 31 August 2018)
SCE = Southern California Edison
DTSC = Department of Toxic Substances Control
NA = Not Analyzed
SCE-13 and SCE-27 will be analyzed for SVOCs and PAHs due to staining observed in those areas.
SCE-8 Sample is required by DTSC; all DTSC samples will be analyzed as discrete samples for TPH, Hexavalent Chromium, Title 22 Metals, and PCBs.

UPDATED PHASE I ENVIRONMENTAL SITE ASSESSMENT
for
RUBIDOUX / AQUA MANSA OPEN SPACE
JURUPA VALLEY, CALIFORNIA

Prepared For:

Crestmore Redevelopment, LLC, a Colorado LLC

Prepared By:

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24 May 2018
Langan Project No. 721013501

LANGAN

TABLE OF CONTENTS

EXECUTIVE SUMMARY **1**

INTRODUCTION **5**

1.1 Scope of the Phase I ESA Update **5**

1.2 Assumptions, Limitations, and Exceptions **7**

1.0 SUBJECT PROPERTY DESCRIPTION **8**

1.1 Location and Description **8**

1.2 Description of Subject Property Improvements **9**

1.3 Physical Setting **10**

1.3.1 Topography 10

1.3.2 Geology 10

1.3.3 Hydrology 13

2.0 USER PROVIDED INFORMATION **14**

2.1 User/Owner Questionnaires **14**

2.2 Previous Environmental Reports **15**

3.0 RECORDS REVIEW **19**

3.1 Environmental Records **19**

4.1.1 Federal Agency Database Findings 21

4.1.2 State Agency Database Findings 22

4.1.3 Other Ascertainable Records 22

4.1.4 Vapor Encroachment Screen 23

4.1.5 Local Regulatory Agency Findings 23

4.0 HISTORICAL USE INFORMATION **25**

4.1 Aerial Photographs **26**

4.2 Sanborn Fire Insurance Maps **26**

4.3 Historical USGS Topographic Quadrangles **26**

4.4 City Directories **27**

5.0 SITE RECONNAISSANCE 28

5.1 Methodology and Limiting Conditions 28

5.1.1 Date and Time of Site Visits 28

5.1.2 General Subject Property Setting and Reconnaissance Observations 28

5.2 Interviews 32

5.2.1 Subject Property Owner 32

5.2.2 Subject Property Occupants 33

5.2.3 Owners/Tenants of Adjacent Properties 33

6.0 DEVIATIONS AND DATA GAPS 34

6.1 Deviations 34

6.2 Data Gaps 34

7.0 FINDINGS AND OPINIONS 35

8.0 REFERENCES 38

9.0 STATEMENT OF QUALIFICATIONS 40

FIGURES

Figure 1 Site Location Map

Figure 2 Environmental Conditions Map

APPENDICES

Appendix A Photographic Log

Appendix B User/Owner Questionnaire

Appendix C Environmental Data Resources Inc. Radius Map™ Report

Appendix D Vapor Encroachment Screen

Appendix E Freedom of Information Act Requests

Appendix F Aerial Photographs

Appendix G Sanborn Fire Insurance Maps

Appendix H Historical USGS Topographic Quadrangle Maps

Appendix I City Directory Abstract

EXECUTIVE SUMMARY

Langan Engineering and Environmental Services, Inc., (Langan) was retained by Crestmore Redevelopment LLC, a Colorado LLC to prepare this update to the previous Phase I Environmental Site Assessment (ESA) prepared by Langan for the Rubidoux / Agua Mansa Open Space (Subject Property), dated March 23, 2017. The Subject Property consists of approximately 79 acres located along the southern portion of the former Riverside Cement Plant (RCP) and includes Assessor's Parcel Number (APN) 175-180-001, the southern portion of APN 175-170-041, 175-170-043, and 175-170-026. The Subject Property excludes the Empire Water Property (APN 175-170-042) and the West Riverside Water Company Canal (APNs 175-170-002 and 175-170-007). Figure 1 depicts the approximate location of the Subject Property and the RCP.

The Subject Property is bound to the west by Rubidoux Boulevard, to the north by the RCP, to the south by Agua Mansa Road, and to the east by industrial development. As shown on Figure 2, the eastern half of the Subject Property contains the Commercial Quarry, unpaved roads, and Cement Kiln Dust (CKD)-containing soil areas. The western half contains the flooded Crestmore Quarry, seven buildings that supported the mine/quarry operations, a mine shaft, two mine vents, and an area of former Kaolin clay storage. The Union Pacific Railroad (UPRR) track runs along the western portion of the Subject Property. Two groundwater monitoring wells are located on the Subject Property, which include MW-3 (southern boundary) and MW-4, which is located southwest of the seven buildings on the Subject Property. In addition, a septic system is located southwest of the seven buildings and north of MW-4 (western portion of the Subject Property). The septic system has been included in this Phase I ESA update as part of the Subject Property as it supported both the RCP and the mine operations (i.e., seven buildings) on the Subject Property (Figure 2).

This Phase I ESA update was conducted using the guidelines of the American Society for Testing and Materials (ASTM) Practice E1527-13 (Standard Practice for ESA: Phase I ESA Process), and the United States Environmental Protection Agency's (USEPA) 2006 All Appropriate Inquiry (AAI) Rule (40 CFR Part 312). The objectives of this Phase I ESA update was to review the information presented in the previous Phase I ESA and to conduct updated listing searches and a site visit relative to the potential presence or likely presence, use, or release on the Subject Property of hazardous substances or petroleum products as defined in ASTM E1527-13 as a Recognized Environmental Condition (REC).

- REC 1: Cement Kiln Dust (CKD) – Based on information provided in Langan's Phase I Environmental Site Assessment for Riverside Cement Plant dated June 10, 2016, Crestmore Redevelopment, LLC, and Preliminary Environmental Assessment Report for Agua Mansa Commerce Park, dated December 20, 2017, CKD may have been placed with soil at the Subject Property. According to RCP management, an estimated 250,000 tons of CKD was generated by the former RCP site operations between approximately 1955 and 1979 (ERM, Technical Evaluation 9/30/90 EPA FIT Report, Riverside Cement Company Crestmore Plant, dated November 1991). The majority of the CKD was placed with approximately 48 yds^3 of refractory (basic) bricks, soils, and other materials primarily in the Wet Weather Quarry to the north of the Subject Property. However, historical documentation indicates that some of the CKD was placed on the Subject Property in the Commercial Quarry and an area southwest of the Commercial Quarry (ERM, Technical Evaluation 9/30/90 EPA FIT Report, Riverside Cement Company Crestmore Plant, dated November 1991). Although historical documents indicate that the majority of CKD at the Commercial Quarry was removed and recovered by the late 1980s for mill or kiln feed supplement (ERM EPA FIT Report, 1991), visual observations from site visits on February 28, 2017 and May 11, 2018 identified the potential presence of CKD containing soils in an area southwest of the Commercial Quarry. Historical documents also suggest that the CKD may have been placed along the southern portion of the Subject Property north of groundwater monitoring well MW-3 along with refractory brick which may contain hexavalent chromium. The limits of the suspected CKD containing soil areas are shown in Figure 2.

- REC 2: Mine Shaft and Mine Vents – According to RWQCB records referenced in a 2009 DTSC site screening assessment for the former RCP site, old mine shafts were reportedly used to place various materials. Specifics regarding the nature of these materials are unavailable, and it is unknown whether the mine shaft on the Subject Property was used for this purpose.
- REC 3: Former Blacksmith Shop (demolished) – Although details regarding operations at the Blacksmith Shop are unknown, it is likely that operations utilized quenching fluids

such as oils or brines. The location of the former Blacksmith Shop, now demolished, is shown on Figure 2.

- REC 4: AST - One 1,500 – 2,000 gallon open top AST was observed near the northwestern boundary of the Commercial Quarry. A viscous oil substance was observed at the valve and a small area (approximately 2'x2') on the ground directly below the valve beneath the tank was observed to be stained.

- REC 5: Hydraulic Fluid Reservoir – One 250 gallon hydraulic fluid reservoir with a pump was observed on the western side of the Technical Services – Material Testing Lab. The hydraulic pump inside the reservoir appeared to be in good condition with no obvious leakage and/or staining. The reservoir appeared to have a below-ground concrete secondary containment with hoses that ran underground and appeared to connect to the concrete breaker inside the Material Testing Lab, which was adjacent to the vault.

- REC 6: Septic Tanks – Two septic tanks are mapped on the adjacent parcel (APN 175-170-041) which has been included in the Subject Property for the purposes of this Phase I ESA.

- REC 7: Transformers – On the exterior eastern side of the Research Furnace building, two pole-mounted transformers that were identified in Langan's previous Phase I ESA, dated 23 March 2017, were removed. According to Pat Crites (RCP Site Manager), these transformers were removed approximately six to eight months ago and were tested for PCBs. No PCBs were detected and the transformers were moved to the Packhouse, awaiting off-site disposal. Prior to their removal, the transformers were described as being in poor condition and corroded.

The following *de minimis* condition was identified at the Subject Property:

- Staining below an overhead crane was observed inside the Welding Shop. This staining is considered a *de minimis* condition at the Subject Property.

Recent groundwater monitoring activities indicate that the hexavalent chromium groundwater concentrations have remained stable over the past twenty years and that concentrations are in the same range as the data from regional groundwater wells in the SWRCB's GAMA Program. Based on the most recent groundwater monitoring activities from November/December 2016,

March 2017, and May 2017 on the Subject Property, groundwater is not considered a REC at the Subject Property.

No Historical RECs (HRECs), Controlled Recognized Environmental Concerns (CRECs), or non-ASTM environmental concerns were identified during this Phase I ESA update.

INTRODUCTION

Langan Engineering and Environmental Services, Inc., (Langan) was retained by Crestmore Redevelopment LLC, a Colorado LLC to prepare this update to the previous Phase I Environmental Site Assessment (ESA) for the Rubidoux / Agua Mansa Open Space (Subject Property), dated March 23, 2017. The Subject Property consists of approximately 79 acres located along the southern portion of the former Riverside Cement Plant (RCP) and includes Assessor's Parcel Number (APN) 175-180-001, the southern portion of APN 175-170-041, 175-170-043, and 175-170-026. The Subject Property excludes the Empire Water Property (APN 175-170-042) and the West Riverside Water Company Canal (APNs 175-170-002 and 175-170-007). Figure 1 depicts the approximate location of the Subject Property and the RCP.

The purpose of this Phase I ESA update is to verify and/or modify previously identified Recognized Environmental Conditions (RECs) and to identify potential new RECs since Langan's last Phase I ESA, dated March 23, 2017, in connection with the Subject Property, as defined in The Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13, which states: "The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." De minimis conditions are not considered RECs. De minimis conditions are further defined as conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be subject to an enforcement action if brought to the attention of appropriate governmental agencies.

1.1 Scope of the Phase I ESA Update

The Phase I ESA update was conducted using a standard of good commercial / customary practice and the local standard of care with a scope of services that is generally consistent with American Society for Testing and Materials (ASTM) E1527-13. Significant scope-of-work additions, deletions, or deviations to ASTM E1527-13 are noted in Section 8.0 of this report. In general, the scope of this assessment consisted of obtaining information from the User; reviewing reasonably ascertainable information and environmental data relating to the Subject Property and adjacent properties; reviewing maps and records maintained by federal, state, and local regulatory agencies; interviewing persons knowledgeable about the Subject Property and

adjacent properties; and conducting a site inspection. The specific scope of this assessment included the following:

1. A site reconnaissance to attempt to characterize conditions and assess the Subject Property's location with respect to adjoining and surrounding property uses and natural surface features. The reconnaissance included the surrounding roads and observations of surrounding properties from public rights-of-way to identify obvious potential environmental conditions on neighboring properties. The site reconnaissance focused on the spatial extent of the Subject Property and then progressed to adjacent and surrounding properties. Photographs taken as part of the site reconnaissance are provided in Appendix A.

2. Questionnaires were provided to the User and site owner to obtain updated information, as applicable, related to the Subject Property. Copies of the completed questionnaires are provided in Appendix B.

3. A review of available previous environmental reports completed for the Subject Property and adjacent properties provided and obtained by the User. These reports were provided in Appendix C of Langan's *Phase I Environmental Site Assessment for Riverside Cement Plant* dated June 10, 2016.

4. A review of environmental databases maintained by the United States Environmental Protection Agency (USEPA), state, and local agencies within the approximate minimum search distance. Environmental Data Resources, Inc. (EDR) prepared the environmental database report, which is included in Appendix C.

5. An evaluation of sites that may result in a vapor encroachment at the Subject Property. EDR's Vapor Encroachment Screen report is included in Appendix D.

6. Freedom of Information Act (FOIA) requests were sent to federal, state, and local agencies. Any FOIA responses received that alter the conclusions made in this report will be documented in an addendum to this report, as necessary. Copies of the FOIA requests are included in Appendix E.

7. Physical characteristics of the Subject Property were determined through referenced sources for topographic, geologic, soils, and hydrologic data.

8. A review and interpretation of aerial photographs, Sanborn Fire Insurance Maps (Sanborn Maps), historical topographic maps, and city directories to identify previous

activities on and in the vicinity of the Subject Property. Copies are included in Appendices F, G, H, and I, respectively.

1.2 Assumptions, Limitations, and Exceptions

This Phase I ESA update report was prepared for the User for the Subject Property located at the address specified in Section 1.0 of this report. This report is intended to be used in its entirety. Excerpts taken from this report are not necessarily representative of the assessment findings. Langan cannot assume responsibility for use of this report for any property other than the Subject Property addressed herein, or by any other third party without a written authorization from Langan.

Langan's scope of services, described in Section 1.1, was limited to that agreed with the User and no other services beyond those explicitly stated are implied. The services performed and agreed upon for this effort are generally consistent with ASTM Standard E1527-13. Intrusive sampling (e.g., soil borings and groundwater sampling) was not performed as part of this Phase I ESA update.

This Phase I ESA update is not intended to be a definitive investigation of possible environmental impacts at the Subject Property. The purpose of this investigation was limited to determining if there is reason to suspect the possibility of RECs at the Subject Property. It should be understood that even the most comprehensive Phase I ESA update may fail to detect environmental liabilities at a particular Subject Property. Therefore, Langan cannot "insure" or "certify" that the Subject Property is free of environmental impacts. No expressed or implied representation or warranty is included or intended in this report, except that our services were performed, within the limits prescribed by our client, with the customary standard of care exercised by professionals performing similar services under similar circumstances within the same jurisdiction.

The conclusions and opinions provided in this report are based solely on the specific activities as required for the performance of ASTM E1527-13 and are intended exclusively for the purpose stated herein, at the specified Subject Property as it existed at the time of our site visit.

1.0 SUBJECT PROPERTY DESCRIPTION

1.1 Location and Description

The Subject Property is approximately 79 acres and located in Jurupa Valley, California and along the southern portion of the former RCP, and includes Assessor's Parcel Number (APN) 175-180-001, the southern portion of APN 175-170-041, 175-170-043, and 175-170-026.

The Subject Property is bound to the west by Rubidoux Boulevard, to the north by the former RCP, to the south by Agua Mansa Road, and to the east by industrial development. As shown on Figure 1, the eastern half of the Subject Property contains the Commercial Quarry, unpaved roads, and mapped CKD containing soil areas. The western half contains the flooded Crestmore Quarry, seven (7) buildings that supported the mine/quarry operations, a mine shaft, and several mine vents. The Union Pacific Railroad (UPRR) tracks run along the western portion of the Subject Property. Two groundwater monitoring wells are located on the Subject Property, which include MW-3 (southern boundary) and MW-4, which is located southwest of the seven buildings on the Subject Property. In addition, a spectic system is located southwest of the seven buildings and north of MW-4 (Adjacent Parcel). The septic system has been included in this Phase I ESA update as part of the Subject Property as it supported both the RCP and the mine operations (i.e., seven buildings) on the Subject Property (Figure 2).

Based on visual observations of the surrounding area made during the site reconnaissance, the Subject Property is located in a suburban area primarily characterized by commercial, industrial properties, undeveloped parcels, and residential properties. Surrounding property uses are summarized in the following table.

Direction	Adjoining Properties		Surrounding Properties
	Address	Description	
North	1500 Rubidoux Blvd.	RCP followed by El Rivino Road and an undeveloped parcel of land.	Single-family residences, undeveloped land parcel
West	1995 Agua Mansa Road	Rubidoux Blvd, commerical industrial business park.	Single-family residences, undeveloped land and single-story commercial / industrial buildings.
South	1850 Agua Mansa Road 1780 Agua Mansa Road	Agua Mansa Road followed by commercial / industrial property (Household Hazardous Waste Facility and Tri-County Rubbish Garbage Collection Service).	Single-story commercial / industrial buildings.
East	1725 Agua Mansa Road	Commercial / industrial property (Earthworks Soil Amendments).	Single-story commercial / industrial buildings.

1.2 Description of Subject Property Improvements

Improvements at the Subject Property are summarized in the following table:

SUBJECT PROPERTY IMPROVEMENTS	
Size of the Subject Property	Approximately 79 acres
Buildings/Spaces/Structures	Seven one-story commercial / industrial buildings related to mining and cement manufacturing plant operations. Several areas of undeveloped land, storage areas and an open quarry.
Surface Water	The flooded Crestmore Quarry is located in the central portion of the Subject Property and is often referred to as Crestmore Lake.
Potable Water Source	None.
Sanitary and Sewer Utilities	On-site sewer lines / off-site septic system
Storm Drain Utilities	City of Jurupa Valley
Electrical Utilities	Southern California Edison
Construction Completion Date	RCP buildings dating back to early 1900's
General Construction Type	Concrete block or metal frame with pitched roof
Cooling and Ventilation System Type	None.
Heating System Type	None.
Emergency Power	None.

1.3 Physical Setting

1.3.1 Topography

According to the USGS Fontana, CA Quadrangle 7.5-minute Series Topographic Map, the elevation of the Subject Property is approximately 982 feet above mean sea level (amsl). The Subject Property and surrounding area slope gently to the east and south.

1.3.2 Geology

Regional Geologic Setting

The Subject Property is in the Peninsular Ranges Province of Southern California, dominated by granitic rocks of Mesozoic age that intruded pre-existing sedimentary strata. Tertiary strata was deposited west of the eroded granitic rocks, and as the area was uplifted, some of these strata formed upland coastal plains. The Subject Property is located east of the coastal plains in an area dominated by granitic rocks that are mainly quartz diorite. The Subject Property was used for mining activities because of two steeply dipping limestone formations approximately 200 to 300 feet thick in the north end of the Subject Property. The limestone formations are roughly parallel with an upper and lower formation, the upper formation known as Sky Blue Hill and the lower formation known as Chino Limestone. Thin, poorly developed soils and minor sedimentary strata locally cover the bedrock on the Subject Property (Geomatrix, 1991).

As stated above, the Subject Property is located within the fault-bounded, northwest-southeast trending Perris Block within the Peninsular Ranges geomorphic province of California. The Perris Block is bounded in the east by the San Jacinto Fault Zone, the north by Cucamonga Fault Zone, and the west by Elsinore Fault Zone. According to the USGS maps (USGS 2006), the Perris Block is underlain by lithologically diverse prebatholithic metasedimentary rocks intruded by plutons of the Cretaceous age Peninsular Ranges batholith. Erosional depositional surfaces are developed on the Perris Block and thin to relatively thick sections of Quaternary age non-marine sediments discontinuously cover the basement rock.

Local Geologic Setting

The Subject Property is located in the eastern end of the Jurupa Mountains on the south side of the San Bernardino Valley. The Santa Ana River drains the San Bernardino Valley towards the southwest and is located approximately one-half mile east of the Site.

Based on a review of published geologic reports, maps and referenced geologic information, the Subject Property is underlain by two geologic units consisting of artificial fill and intermixed

tonalite marble and schist. The artificial fill (Qaf) reportedly consists of uncompacted and undocumented fill from mining operations, CKD and unconsolidated talus deposits. The intermixed tonalite, marble, and schist (KtPzms) are Cretaceous and Paleozoic age and consist of intermixed biotite-hornblende tonalite and coarse grained marble containing lesser amounts of biotite-quartz schist.

Based on the information reviewed, quarrying and subsurface mining activities were initiated in 1906 to mine the limestone within the Subject Property. Prior to quarrying, the limestone was present as two generally irregular, roughly parallel, lenticular limestone bodies dipping primarily east-northeast. The upper (shallower) and lower (deeper) limestone bodies are referred to as Sky Blue and Chino Limestones, respectively and were mineralogically similar. The limestone is coarsely crystalline, associated with metamorphosed sediments, enveloped and cut by intrusive igneous rocks and contact metamorphic minerals, including large masses of intrusive microcrystalline quartz monzonite porphyry and quartz monzonite pegmatites. Country rock within the boundaries of the Subject Property consists of Perris quartz-biotite diorite that becomes granodiorite. Quartz monzonite pegmatites occur commonly as dikes in the porphyry and country rock and extended generally less than 2 or 3 feet into the limestone. The most widespread contact rock is composed generally of grossularite garnet with and without diopside.

The shallower, Sky Blue limestone was an arcuate shaped body, enveloped and intruded by quartz diorite and intruded by quartz monzonite porphyry. The body was up to several hundred feet thick and dipped primarily east or northeast. Where the body was thinnest, the limestone was converted to contact rock. Two (2) facies were present within the limestone; a white limestone with localized yellow predazzite beds and a sky blue colored limestone present closer to the intrusive quartz monzonite porphyry and associated pegmatites.

The deeper, Chino limestone was generally composed of alternating bands of yellowish predazzite and white crystalline limestone with widely disseminated graphite flakes. The unit dipped up to 45 degrees east, was at least 2,000 feet long, and had irregular upper and lower surfaces. Banding ranged from few inches to a few feet thick.

Local Faulting

Langan reviewed the following publications and report as part of our geologic review regarding local faulting within the Site:

- Daly, John W., (1931), The Geology and Mineralogy of the Limestone Deposits at Crestmore, Riverside County, California, dated 1931 (Daly, 1931).

- Woodford, A. O., Crippen, R. A., and Garner, K. B., (1941), Section Across Commercial Quarry, Crestmore, California, American Mineralogist, Volume 26, pages 351-381 (Woodford et al, 1941).

- ERM-West, Inc., (1991), Technical Evaluation 9/30/90 EPA FIT Report, Riverside Cement Company, Crestmore Plant, dated November 1991 (ERM-West Report).

Plate 1 included in the Daly, 1931 report shows a northeast-southwest trending fault segment between the Commercial Quarry in the northeast and southwestern portion of the Crestmore Quarry to the southwest. The corresponding report text does not elaborate on this fault and alleges Daly (i) identified only a few small faults of which have no particular significance regarding the major geologic structure of the Site and (ii) did not find any large faults in the area mapped west of the quarries.

The Woodford, et al, 1941 report refers to "a prominent fault (?) running N50^{o}E 70^{o}SE" that extends into bedrock at Station 15 of Woodford, et al's Figure 3-Section Across the Commercial Quarry, 1940'. Additional information of this fault was not provided in this report.

Figures 2-1, 2-2, 2-5, and 3-2 included in the ERM-West Report shows a generally northwest-southeast trending fault in southwestern portion of the Crestmore Quarry. The corresponding report text does not elaborate on the nature or source of this fault.

USGS, CGS and Dibblee maps were also reviewed. No other local faults were mapped on the Site. Based on our review of the referenced publications it is our opinion active faulting (Holocene or younger) is not present within the Site.

The Subject Property is located in the eastern end of the Jurupa Mountains on the south side of the San Bernardino Valley. The Santa Ana River drains the San Bernardino Valley towards the southwest and is approximately one-half mile east of the Subject Property. The ground surface elevations vary between approximately 820 feet amsl to approximately 1150 feet amsl. Groundwater is at a depth of approximately 85-90 feet (804-809 feet amsl) on the southern portion of the Subject Property (Langan, 2017a).

1.3.3 Hydrology

The site is located in the eastern end of the Jurupa Mountains on the south side of the San Bernardino Valley. The Santa Ana River drains the San Bernardino Valley towards the southwest and is approximately one-half mile east of the site. The ground surface elevations vary between approximately 820 feet above mean sea level (amsl) on the southern portion of the site to approximately 1150 feet amsl on the northern portion of the site.

Based on a review of historical site documents, groundwater occurs in three distinct hydrologic units at the site. They are the Chino Limestone (referred to the lowe limestone unit), the Wet Weather, and the Sky Blue (referred to the Commercial unit in historical documents) Limestone units (referred to upper limestone unit), and the Santa Ana River alluvium (ERM-West, August 1991). According to the ERM-West 1991 report, geologic and dewatering feastibility studies were conducted in 1928 and 1950 by W.P. Rowe in the Chino limestone, where the Crestmore quarry is currently located. These studies indicated that the granite layers above and below the Chino limestone act as confined layers. The report states that the Chino limestone water originates mostly from percolation from rainwater at the mine and an influx of water from somewhere below the Santa Ana River to the east.

Pumping wells installed during the 1928 study were screened in the Blue Sky and Wet Weather formations, and displayed a flow consistent with groundwater migration in the river alluvium, prior to dewatering the wells The ERM-West report refers to the Wet Weather and Blue Sky Limestone units as being a continuous unit, and that upper limestone was hydraulically connected to the alluvium east of the original surface outcrops of granite. Figure 1-4 in the ERM-West report show groundwater gradients in the alluvium flow south-southwest in the eastern part of the site and flows west in the southwestern part of the site. ERM-West's report also states that inference of the hydraulic connection in the lower limestone and alluvium were very strong, also evident in Figure 1-4.

According to ERM-West report, the production wells on-site, Well 88-1 and Well 60-1, are screened in the Chino limestone and alluvium, respecitviely, and groundwater from the Chino limestone migrates toards the production wells. The report also explains water consumption at the site, during the time of the report (mid-1980s- early 1990s) , was from precipitation, the northern Chino limestone contact with river alluvium, water from within the Chino limestone aquifer deeper to the east, and the drift to the Wet Weather limesone at 220 feet above sea level. According to the ERM-West report, this was most likely due to the mine drift not being

completely sealed between the limestone units when it was cut in 1985.

Concurent with historical documents (discussed in later sections of this report), and the results of the recent investigation, groundwater flow in the shallow alluvial aquifer is likely towards the Santa Ana River, or towards the south to southeast. Groundwater was measured in the wells onsite at depths between 60 and 135 feet below ground surface (bgs).

2.0 USER PROVIDED INFORMATION

2.1 User/Owner Questionnaires

Per ASTM E1527-13, a User and Owner Questionnaire were provided to the User and Owner to update previous information regarding specialized information related to the Subject Property. William Lynott of Crestmore Redevelopment LLC, a Colorado LLC, completed the User Questionnaire and Mr. John Gillan with Martin Marrieta completed the Owner Questionnaire. Based on the completed questionnaires, Mr. Lynott and Mr. Gillan indicated there were no changes and/or updates since the previous Phase I ESA was completed in March 2017. The completed User and Owner Questionnaires are included in Appendix B.

2.2 Previous Environmental Reports

The following is a summary of the previous environmental reports pertaining to the former RCP Site (Northern Parcel) and/or the Subject Property (Southern Parcel) that were reviewed by Langan:

Related Parcel	Document	Summary
Northern and Southern Parcels	September 30, 1990 – Environmental Protection Agency, Hazardous Site Evaluation Division - Field investigation Team Zone 2 - Ecology and Environment, Inc.	The Environmental Protection Agency requested Ecology and Environment Inc. to conduct a Screening Site Inspection under CERCLA and Superfund Amendments and Reauthorization Act (SARA) of 1980. The focus of the investigation consisted of basic brick containing hexavalent chromium and CKD possibly disposed of at or near the historical groundwater elevation. The report noted the following: • The Riverside Cement Company is listed as a generator in the Resource Conservation and Recovery Act (RCRA) database due to generation of basic brick, asbestos insulation from plant refurbishing, and PCB containing transformers. • The report states that approximately 250,000 tons of CKD had been generated at the RCP and the Subject Property from 1955 to 1979 but was often fed back into the kilns for reprocessing since the kilns were a closed loop system. From 1955 to 1979, approximately 48 yd^3 of brick containing approximately 10 percent hexavalent chromium was placed in the CKD disposal areas. Two soil samples were collected from a suspected CKD disposal area. The soil samples were analyzed for metals. Chromium was detected with a maximum concentration of 4.6 mg/kg and lead was detected with a maximum concentration of 106 mg/kg. A soil sample was also analyzed for California Waste Extraction Test and no metal concentrations exceeded the soluble threshold limit concentration limit. • Groundwater samples were collected from the Yeager Construction Company (YCC) well near the southwest boundary of the Subject Property, and the El Rivino Country Club (ERCC) well approximately 4,500 feet to the north of the RCP. Groundwater samples were collected to determine if the CKD disposal areas had leached metals into the groundwater. The conclusion was that disposal of the CKD material was ongoing and groundwater samples indicated that an observed release into groundwater has occurred.
Northern and	November 1991 - Technical Evaluation 9/30/90 EPA Fit Report	The Technical Evaluation was performed in response to the 1990 report by Ecology and Environment. The Technical

Related Parcel	Document	Summary
Southern Parcels	Riverside Cement Company, Crestmore Plant – ERM-West, Inc.	Evaluation sought to demonstrate that disposal operations at the RCP had no significant impact on groundwater. The report noted the following: • CKD thickness in the Wet Weather Quarry (RCP) reportedly ranges from 2 to greater than 60 feet and was last used for disposal in 1990. The Commercial Quarry (Subject Property) was a secondary disposal area during the 1960's and it was reported that the majority of CKD was removed and recovered in the late 1980s for mill or kiln feed supplement. The north side of the Crestmore Quarry was not designated as a disposal area for CKD. Trucks transporting CKD may have spilled or temporarily stored CKD, which resulted in some CKD on the slopes of the Crestmore Quarry. • ERM-West installed and sampled two monitoring wells in alluvium: MW-1 located north of the Wet Weather Quarry (RCP) and MW-3 located southeast of the Commercial Quarry (Subject Property). Samples from wells 60-1, 88-1, the ERCC, and YCC were collected for comparison. Groundwater test results indicated that total chromium concentrations were equal to or less than 13 micrograms per liter (µg/L). The report noted that well 60-1 and the ERCC well were installed in alluvium while the well 88-1 was installed in the lower Chino Limestone.
Northern and Southern Parcels	June 22, 1994 - Site Inspection Prioritization - Bechtel Environmental, Inc.	This report reviewed the September 1990 and November 1991 reports by Ecology and Environment and ERM-West, respectively. The report noted the following: • The report suggests that an apparent release of metals to groundwater is established based on the data presented in the September 1990 report, where concentrations of aluminum (155 µg/L), chromium (19.4 µg/L), and manganese (34.4 µg/L) were detected in the YCC well (down gradient or to the south) and compared to groundwater samples collected from the ERCC well (up gradient), where concentrations of aluminum (26.9 µg/L), chromium (3.8 µg/L), and manganese(< 1µg/L) were detected. The report mentioned the analytical results from wells YCC and ERCC by ERM-West, Inc. in November 1991 as further proof that a release of chromium and manganese had occurred to groundwater.
Northern and Southern Parcels	October 7, 1994 – SUBJECT: Technical review of EPA Site Inspection Prioritization Report - ERM-West, Inc.	The report re-evaluates the September 1990 and November 1991 reports and disputes the conclusion developed by Bechtel Environmental in the June 1994 report.

Related Parcel	Document	Summary
Northern and Southern Parcels	January 25, 2001 – Draft Technical Memorandum No. 1, Records Review for the CKD Areas at the RCC Crestmore Plant - SECOR	The Technical Memorandum summarizes the findings for records reviewed regarding the CKD disposal areas for Riverside Cement Company. The memorandum noted the following: • In 1960 - The Regional Water Quality Control Board (RWQCB) adopted Waste Discharge Requirements (WDRs) Order No. 60-17 for the RCP, limiting discharge shall not cause groundwater to contain hexavalent chromium in excess of 0.05 mg/L. • June 24 1966 - the RWQCB revised the WDRs to address the discharge of CKD due to a citizen complaint. • July 20, 1966 – RWQCB sent a letter to interested parties that discharge of CKD into the quarry areas containing groundwater had ceased. • January 30, 1968 - RCC informs RWQCB that CKD is recycled through the plant and no longer discharged into the quarry areas. • August 1, 1973 – Hexavalent chromium was detected within wastewater discharge into on-site percolation pond with a concentration of 0.55 mg/L. Cooling water was inadvertently discharged to the wastewater system. • 1976 - WDRs (Order No. 76-78) revised by RWQCB and addressed the discharge of: 1) groundwater pumped from the limestone quarry area to nearby surface water bodies, 2) boiler blowdown water to a lined facility, and 3) septic wastes to on-site leaching systems. • WDRs (Order No. 78-27) were revised to prohibit the discharge of untreated industrial and domestic wastes to subsurface leaching system and approve of a proposed design for treatment of domestic wastes. • August 13, 1991- RCC submitted a Closure Plan to the RWQCB for the CKD area and the boiler blowdown Pond. This closure plan was not available in the RWQCB file records. • March 8, 1993 – County of Riverside submitted a letter to RCC indicating CKD disposal areas are exempt from California Integrated Waste Management Board Requirements. • 1998 - WDRs (Order No. 98-77) for the Site were rescinded by RWQCB.
Southern Parcel	March 23, 2017 – Phase I Environmental Site Assessment for Rubidoux/Agua Mansa Open Space – Langan	The purpose of this Phase I ESA was to idenitify the presence or likely presence, use, or release of hazardous substances or petroleum products. The following RECs were identified: • REC 1: Cement Kiln Dust (CKD) • REC 2: Mine Shafts

Related Parcel	Document	Summary
		• REC 3: Transformers • REC 4: Groundwater • REC 5: Blacksmith Shop • REC 6: AST (One 1,500-2,000 gallon)
Northern and Southern Parcels	May 3, 2017 - First Quarter 2017 Groundwater and Surface Water Monitoring Report – Langan	Langan conducted groundwater sampling on 28 March 2017 for MW-3, MW-4 (west of Subject Property), and the Northern Well (RCP), and collected two surface water samples from the southern and western portion of Crestmore Lake. The groundwater and surface water samples were analyzed for metals, dissolved hexavalent chromium, anions, pH, and total dissolved solids (TDS). The results indicated that only MW-3 contained hexavalent chromium concentrations (17 µg/L) above the hexavalent chromium MCL of 10 µg/L. Concentrations of hexavalent chromium in surface water did not exceed the hexavalent chromium MCL; however, they do exceed the RWQCB's ingestion cancer risk Environmental Screening Level (ESL) of 0.05 µg/L, as well as the dermal contact cancer risk ESL of 0.11 µg/L (RWQCB, 2016).
Northern and Southern Parcels	August 8, 2017 – Groundwater Monitoring Summary Letter – Langan	Langan provided a groundwater monitoring summary letter to the Santa Ana Regional Water Quality Control Board (SARWQCB) to support a no further action (NFA) determination by the SARWQCB with respect to environmental assessment, remediation, and groundwater monitoring at the Subject Property. Langan conducted sampling events in November/December 2016, March 2017, and May 2017 where groundwater samples were collected from MW-3, MW-4, and the Northern Monitoring Well. The November/December 2016 and March 2017 have been summarized above. The May 2017 groundwater sampling results indicated that hexavalent chromium was detected in MW-3 at 16 µg/L, above the California MCL (10 µg/L) and no metals were detected above current California MCLs during the sampling event. No VOCs were detected in wells during the May 2017 samping event. Langan requested an NFA determination for the Site since the recent groundwater analytical data indicated that groundwater concentrations have remained stable for approximately 20 years and hexavalent chromium concentrations are in the same range as the data from regional groundwater wells in the SWRCB's GAMA Program.

3.0 RECORDS REVIEW

3.1 Environmental Records

A copy of regulatory database information was provided by EDR and is included in Appendix C. The EDR report is a listing of sites identified on select federal and state standard source environmental databases within the approximate search radius specified by ASTM Standard Practice for E1527-13. Langan reviewed each environmental database to determine if certain sites identified in the report are suspected to represent a potential impact to the Subject Property. Langan also reviewed "Orphan Sites" listed within the report. Orphan sites are those sites that could not be mapped due to inadequate address information. Orphan sites that were identified by Langan within the ASTM search radii, either during the Subject Property reconnaissance or by cross-referencing to mapped listings, are addressed in the discussion below. All distances to adjacent properties are measured from the perimeter of the Subject Property.

The following table lists the number of sites by database within the prescribed search radius appearing in the EDR Report.

Database Record Summary			
Database Reviewed (Date of government version)	**Minimum Search Area**	**Subject Property listed**	**Number of Sites Within Minimum Search Area**
USEPA DATABASES			
National Priorities List (NPL) (12/11/2017)	1 Mile Radius	No	0
Delisted NPL (12/11/2017)	1 Mile Radius	No	0
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) (11/07/2016)	1/2 Mile Radius	Yes	1
CERCLIS No Further Remediation Action Planned (NFRAP) (01/09/2018)	1/2 Mile Radius	No	0
Resource Conservation and Recovery Act (RCRA) Corrective Reports (CORRACTS) (12/11/2017)	1 Mile Radius	No	0
Federal RCRA non-CORRACTS Treatment, Storage, and Disposal Facilities (TSDF) List (12/11/2017)	1/2 Mile Radius	No	0
Federal RCRA generators List (LQG, SQG) (12/11/2017)	1/4 Mile Radius	No	6

Database Record Summary			
Database Reviewed (Date of government version)	**Minimum Search Area**	**Subject Property listed**	**Number of Sites Within Minimum Search Area**
Environmental Response Notification System (ERNS) (01/16/2018)	< 1/8 Mile Radius	No	0
Engineering Controls (EC) Site Lists (11/13/2017)	1/2 Mile Radius	No	0
Institutional Controls (IC) Site Lists (11/13/2017)	1/2 Mile Radius	No	0
CALIFORNIA DATABASES			
State- and tribal-equivalent NPL (RESPONSE) (1/30/2018)	1 Mile Radius	No	1
State- and tribal- equivalent CERCLIS (ENVIROSTOR) (1/30/2018)	1 Mile Radius	Yes	4
Solid Waste or Landfill Facilities (SWF/LF) (2/12/2018)	1/2 Mile Radius	No	4
State and tribal leaking storage tank lists (LUST, SLIC, INDIAN LUST)	1/2 Mile Radius	Yes	9
State and tribal registered storage tank lists (UST, AST, INDIAN UST, FEMA UST)	1/4 Mile Radius	Yes	12
State and tribal voluntary cleanup sites (VCP, INDIAN VCP)	1/2 Mile Radius	No	1
OTHER ASCERTAINABLE RECORDS			
Local Lists of Registered Storage Tanks (CA FID UST, HIST UST, SWEEPS UST)	1/4 Mile Radius	Yes	8
Local Lists of Landfill/Solid Waste Disposal Sites (WMUDS/SWAT, SWRCY)	1/2 Mile Radius	Yes	4
Local Lists of Hazardous Waste/ Contaminated Sites (HIST Cal-Sites)	1 Mile Radius	No	1
Records of Emergency Release Reports (LDS)	< 1/8 Mile Radius	Yes	1
TSCA	1/2 Mile Radius	Yes	1
ICIS	< 1/8 Mile Radius	Yes	1
US AIRS	< 1/8 Mile Radius	Yes	1
US MINES	1/4 Mile	No	0

Database Record Summary			
Database Reviewed (Date of government version)	**Minimum Search Area**	**Subject Property listed**	**Number of Sites Within Minimum Search Area**
	Radius		
Facility Information System Database (FINDS)	< 1/8 Mile Radius	Yes	2
EMI	< 1/8 Mile Radius	Yes	2
HAZNET	< 1/8 Mile Radius	Yes	5
HIST CORTESE	1/2 Mile Radius	Yes	3
HWP	1 Mile Radius	No	1
MINES	< 1/8 Mile Radius	No	0
NPDES	< 1/8 Mile Radius	Yes	2
PROC	1/2 Mile Radius	No	1
WDS	< 1/8 Mile Radius	Yes	1
ECHO	< 1/8 Mile Radius	Yes	2
EDR US Historical Auto Station Site (NA)	< 1/8 Mile Radius	No	0
RGA LUST	< 1/8 Mile Radius	Yes	2

NA - Not Applicable; databases with a "Not Applicable" Minimum Search Radius are databases reviewed as part of the Phase I ESA but not required as per ASTM E1527-13.

A description of the reviewed databases is provided in the EDR Report (Appendix C). A summary of Subject Property database listings and other sites identified within the prescribed search area is presented below.

4.1.1 Federal Agency Database Findings

The Subject Property was listed in the following Federal Agency database: CERCLIS SEMS. The Subject Property database listing is discussed below. Based on distance, topographically cross-gradient or down-gradient position relative to the Subject Property, and non-violation status, none of the adjacent and surrounding sites listed in Federal Agency databases are expected to have a potential impact on the Subject Property.

Riverside Cement Co Crestmore PLT, 1500 Rubidoux Boulevard

The RCP is listed under the SEMS database. According to the SEMS database listing, the RCP is not listed in the National Priority List (NPL) and is listed as state-lead cleanup. Sites listed in the NPL are evaluated by the Superfund Program.

4.1.2 State Agency Database Findings

The Subject Property was listed under the ENVIROSTOR, LUST, and AST databases. No sites that were identified within the designated search radii, which are likely to have current or former releases of hazardous substances, have the potential to migrate to the Subject Property. The RCP was identified on State Agency databases and is discussed below.

Riverside Cement Company – Crestmore Facility, 1500 Rubidoux Boulevard

The RCP is listed under the ENVIROSTOR, LUST and AST databases. According to the ENVIROSTOR database, the RCP is referred to the RWQCB with the lead agency as the USEPA. Potential Chemicals of Concern (COCs) are listed as PCBs and hexavalent chromium, confirmed COCs are not specified. The LUST database lists the RCP status as completed - case closed as of November 5, 1991. The lead agency is listed as Riverside County Local Oversight Program (LOP) with potential COCs listed as heating oil/ fuel oil. According the AST database, the certified unified program agencies is listed as Riverside, the owner is listed as Riverside Cement Company and the total gallons is listed as 5,000. These listings are not considered a REC for the Subject Property.

4.1.3 Other Ascertainable Records

The RCP was listed in the WMUDS/SWAT, SWEEPS UST, HIST UST, CA FID UST, CHMIRS, LDS, TSCA, US AIRS, FINDS, EMI, HAZNET, HIST CORTESE, NPDES, WDS, EDR Hist Auto, ECHO and RGA LUST databases. Sites within the respective minimum search distances were listed in the following databases: WMUDS/SWAT, SWRCY, HIST Cal-Sites, SWEEPS UST, HIST UST, CA FID UST, HIST CORTESE, HWP, MINES, and PROC. Based on distance, topographically cross-gradient or down-gradient position relative to the Subject Property, and non-violation status, none of the adjacent and surrounding sites listed in these databases are likely to have current or former releases of hazardous substances with the potential to migrate to the Subject Property.

4.1.4 Vapor Encroachment Screen

A vapor encroachment screen was conducted for the Subject Property to assess the presence of vapor encroachment conditions (VECs), defined in ASTM E2600-10 as "the presence or likely presence of [chemical of concern (COC)] vapors in the sub-surface of the target property (TP) caused by the release of vapors from contaminated soil or groundwater either on or near the TP." No VECs or likely VECs were identified surrounding the Subject Property. A copy of the vapor encroachment screen is included in Appendix D.

4.1.5 Local Regulatory Agency Findings

Freedom of Information Act (FOIA) Requests

FOIA requests were submitted to the state and local agencies listed below:

- South Coast Air Quality Management District (AQMD). AQMD indicated that records are available for review and consist of site inspection reports. The site inspection reports detail Title V inspections and equipment lists from October 1990 to March 2016, generally pertaining to the former RCP operations to the north of the Subject Property. The inspections noted that emissions (dust) generated were in compliance with the permit held by the former RCP.

- California Environmental Protection Agency Department of Toxic Substances Control (DTSC) Cypress, CA. The DTSC indicated that records are available for review. According to the records reviewed:

  July 27, 1973, RWQCB notified Riverside Cement Company that the sample results for waste discharge had a concentration of hexavalent chromium of 0.55 mg/L. A re-sample was requested to determine if any significant chromate was detected.

  August 1, 1973, Riverside Cement Company notified RWQCB that re-sampling of plant wastewater determined that the concentration of hexavalent chromium was equal to 0.5 parts per million (ppm). The letter states that a pump failure caused treated cooling water be dumped into storm water effluent during the sampling period. A standby pump will be installed in case the circulating pump fails, and water treatment for cooling water will be changed to reduce or eliminate the use of chromate.

  June 6, 1994 – Riverside Cement Company requested from RWQCB concurrence of closure for the CKD disposal area.

December 4, 1996, ERM-West, Inc. provided Riverside Cement Company with an annual groundwater monitoring report summarizing the depth to groundwater in wells MW-1 and MW-3 and the laboratory results for groundwater samples. Groundwater depths were measured to be 107 to 110 feet below the top of casing for MW-1 and 74 to 76 feet below the top of casing for MW-3. Groundwater samples were analyzed for metals, total dissolved solids, turbidity, alkalinity, chloride, color, fluoride, nitrate (NO_3), odor, pH, specific conductance, sulfate, and MBAS (surfactants). Groundwater sample results were compared to USEPA and State of California drinking water maximum contaminant levels.

May 4, 2009 – DTSC prepared a site screening assessment to evaluate potential hazardous material usage / releases from the RCP. The conclusions of the report noted that, according to RWQCB records, old mine shafts were used to dispose of various wastes.

- California Department of Conservation Division of Oil, Gas, and Geothermal Resource (DOGGR). The DOGGR indicated that records are available for review and consist of annual reports and surface mining inspection reports. The surface mining reports indicate that mining activities had not yet started under the approved permit in 1993, and no mining activities were permitted and in operation in 1996 and 1997.

- Riverside County Department of Environmental Health (RCDEH). RCDEH indicated that records are available for review. All of the records reviewed pertained to historical removal, assessment, or remediation of USTs or pipelines at the RCP. None of the former USTs or pipelines mentioned in this document were located on the Subject Property.

- Riverside County Planning Department. The Riverside County Planning Department indicated that records were available for the RCP and the Subject Property. Records consisted of several versions of Environmental Impact Reports and Mining and Reclamation Plans. The Environmental Impact Reports accompanied a renewal application for Surface Mining Permit 180. The board of supervisors approved the application for renewal to Surface Mining Permit 180 in September 1, 1992. Riverside Cement Company proposed to begin surface mining in 1992. The Mining and Reclamation Plan summarizes Geology, Hydrogeology, Minerals and Mining Operations proposed for the RCP and the Subject Property. The Mining and Reclamation Plan summarized the three phases for reclamation of the surface mines at the RCP and the Subject Property. Reclamation consisted of landscaping and sloping the sides of the surface mines at a ratio of 1.5 to 1 (horizontal to vertical).

- Regional Water Quality Control Board. The Santa Ana Regional Water Quality Control Board indicated that records were available for the RCP and the Subject Property. Records consisted of annual storm-water discharge reports from 2007 to 2013. The annual storm-water discharge reports summarizes the laboratory results for storm-water samples that are discharged from the RCP. Riverside Cement Company received a failure-to-comply notice in August 2008 for not submitting an annual report by July 1. Riverside Cement Company submitted the annual storm-water discharge report on September 2008.

Copies of the FOIA requests are included in Appendix E.

California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR) Well Finder

On May 2, 2018, Langan searched for the Subject Property on the DOGGR online Well Finder database (http://maps.conservation.ca.gov/doggr/index.html#close). The Subject Property is not located within a mapped oil or gas field. There are no oil wells located on the Subject Property. The closest oil well is located approximately 1.7 miles northeast of the Subject Property and is listed as plugged.

State Water Resources Control Board (SWRCB) GeoTracker Site

On May 2, 2018 Langan searched for the Subject Property on the SWRCB GeoTracker online database (http://geotracker.waterboards.ca.gov). The RCP is listed on GeoTracker, but the Subject Property is not. The RCP and nearby listed sites were evaluated as part of the environmental records review summarized in Section 4.1.

DTSC EnviroStor Site

On May 2, 2018, Langan searched for the Subject Property on the DTSC EnviroStor online database (http://www.envirostor.dtsc.ca.gov). The RCP is listed on EnviroStor, but the Subject Property is not. The RCP and nearby listed sites were evaluated as part of the environmental records review summarized in Section 4.1.

4.0 HISTORICAL USE INFORMATION

Langan reviewed available historic resources (including aerial photographs, topographic maps, and city directories) dated 1896 to 2014. Findings of the reviews are presented below.

4.1 Aerial Photographs

Langan reviewed aerial photographs for the Subject Property and surrounding areas for the years 1931, 1938, 1948, 1953, 1959, 1966, 1968, 1975, 1985, 1989, 1990, 1994, 2005, 2010, and 2014. The property to the north of the Subject Property was occupied by the RCP in 1931 and 1938 and surface mining/excavation is apparent on the western half of the Subject Property. The northwestern portion of the Subject Property is occupied by seven structures. Agua Mansa Road can be seen south and Rubidoux Boulevard west of the Subject Property. The 1948 aerial photograph depicts a depression with liquid, which is believed to be the Wet Weather Quarry just north of the northerneastern limits of the Subject Property. The topography shown in the 1953 through 1975 aerial photographs remains similar to that in the 1948 photograph, suggesting that no substantial surface mining/excavation had been conducted on the Subject Property during this time. The 1985 photograph shows that mining/excavation had been conducted in the Commercial Quarry on the eastern side of the Subject Property, and the Commercial Quarry appears to be partially flooded. The 1989 and 1990 photographs show that the Crestmore Quarry had flooded, although the Commercial and Wet Weather Quarries appear to be dry. The Subject Property appears relatively unchanged in the 1994, 2005, 2010, and 2014 aerial photographs.

Surrounding properties consist of agricultural land from 1931 to 1966. Industrial development is depicted south of the Subject Property beginning in 1966, which continues in the southwest of the Subject Property beginning in 1974, and in the southeast and east of the Subject Property beginning in 2005. Surrounding properties are characterized by residential use to the west and northeast. Langan's review of aerial photographs did not indicate RECs at the Subject Property or surrounding areas. Copies of the historical aerial photographs are included in Appendix F.

4.2 Sanborn Fire Insurance Maps

Langan requested historical Sanborn fire insurance maps from EDR. EDR indicated that fire insurance maps covering the Subject Property were not found. A copy of the EDR Certified Sanborn Map Report in included as Appendix G.

4.3 Historical USGS Topographic Quadrangles

Langan reviewed historical USGS Topographic Quadrangles obtained from EDR for information regarding past uses of the Subject Property and surrounding areas for the years 1896, 1898, 1901, 1942, 1943, 1953, 1954, 1967, 1973, 1980, and 2012. The 1896 and 1898 topographic maps depict the Subject Property and immediate vicinity as undeveloped land, the Subject Property is seen with two elevated areas of approximately 1100 feet and 1150 feet amsl. Three

streets surround the Subject Property and appear to be El Rivino Road on the north, Agua Mansa Road on the south, and Rubidoux Boulevard on the west. The Subject Property remained undeveloped in the 1901 topographic map with the exception of new street additions in the south. The 1942 topographic map indicate that the Subject Property was a quarry or open pit mine. The 1943 to 2012 topographic maps note the property to the north as a "cement plant." In the 1953 topographic map and later years, the term "Quarry" or "Quarries" is a descriptor used for the Subject Property, and two railroads in the south and southeast of the Subject Property are described as "Pacific Electric" and "Union Pacific," respectively. The 1954, 1967, 1973, and 1980 topographic maps depict increasing residential and industrial developments in the surrounding vicinity. The 2012 topographic map depicts the Subject Property in its current configuration. Copies of the topographic maps are provided in Appendix H.

4.4 City Directories

The City Directory Abstract, obtained from EDR, is a review of available business directories, including city, cross-reference, and telephone directories, at approximately five-year intervals for the years spanning 1921 through 2013. The following listings were provided for the Subject Property:

- 1970: American Cement Corp, Land Paul B, Riverside Cement Co, Riverside Cement Transportation Department
- 1990: CDK Contracting, Crestmore Federal Credit Union
- 1996: California Cattle Feeders
- 2001: Budcr 11 DS, Crestmorediv, MKTG Dept TXIRiversdcement, Purchasing, Transloading CCF, TX IRIV 0 SD Cement
- 2002: ORO Grande Federal Credit Union

Commercial, industrial, and light manufacturing businesses were listed at adjoining and surrounding properties. A copy of the City Directory Abstract is provided in Appendix I.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

The site reconnaissance focused on the spatial extent of the Subject Property and then progressed to the adjacent and surrounding properties. The assessment of the adjacent and surrounding properties was limited to identifying, if possible, any indications of past or current use that may involve the use, storage, disposal, or generation of hazardous substances or petroleum products; noting the general type of current use; the general topography of the surrounding area; and providing a general description of adjoining or adjacent structures.

5.1.1 Date and Time of Site Visits

The site reconnaissance was performed at 7:30 AM on May 11, 2018 by Kathleen Lo, Brad McCardell, and Neil Shukla of Langan. The owner's site contact was Pat Crites (Mr. Crites) and he accompanied the Langan personnel during the site reconnaisance. The weather at the time of the inspections was overcast and approximately 70° F.

5.1.2 General Subject Property Setting and Reconnaissance Observations

The Subject Property occupies an area of approximately 79 acres and contains several buildings associated with the RCP, the Commercial Quarry, and Crestmore Lake (former Crestmore Quarry). Areas observed during the site reconnaissance included the following:

- The eastern half of the Subject Property contains the former Commercial Quarry and an unpaved access road that runs along the property boundary from the east to the west. Visual observations indicate that CKD material is present to the southwest of the former Commercial Quarry.
- The central portion of the Subject Property contains Crestmore Lake, which resulted from the flooding of the former Crestmore Quarry in the mid 1980's. There is an unpaved access road (former access route to the Crestmore Mine entrance) along the western edge of the lake that allows access from the northern end of the Subject Property to the shoreline, where a dock is situated. According to Mr. Crites, the dock was used by RCP personnel for fishing tournaments. Some debris was observed embedded in the slope to the north of the lake. Mr. Crites noted that a tunnel with a beltway was present to the north of Crestmore Lake, but that the tunnel had collapsed.
- Langan observed two mine vents along the unpaved access road on the western edge of the Crestmore Lake.
- In the northwest portion of the Subject Property, there are seven buildings that supported operations at the RCP. Based on the site reconnaissance, these buildings

were described by Mr. Crites as the Compressor Building (Compressor), Welding Shop (Mine Warehouse), Change House (White Plant Office), Technical Services – Concrete Testing Lab (Carpenters Shop), Pilot Plant (Research Furnace), Mine Superintendent Office (Mine Office) and former Electrical Building. The Change House includes the Engineering-Mineral-Research Library (Library), Technical Services – Material Testing Lab and other mine supervisor offices. A description of each building's function and Langan's observations are provided in the table below:

Building Name	Function	Observations
Compressor Building	Post mine operations: Storage room for white kiln brick or "fire brick" and compressors. Minor repair operations to large equipment and compressors.	White kiln brick stored inside. One dry type transformer at the northern end.
Welding Shop	Former Welding operations of various equipment from early 1900s to 1960s. Minor equipment repairs utilizing overhead crane from 1960s to plant shutdown. Welding operations used welding tables and acetylene as fuel source.	Staining was observed below an overhead crane. An outdoor loading dock and vacant storage room was also observed.
Change House	Includes the library, mine supervisor offices, and material testing lab, which tested materials in response to customer complaints. Also formerly used by mine workers to change into and out of their work clothes prior to their work shifts	Lab contained a concrete breaker which was used to test concrete sample (i.e. cylinders) strengths. A hydraulic fluid reservoir and pump was observed outside the building and appeared to power the concrete breaker.
Technical Services - Concrete Testing Lab	Testing the quality of the cment in the 1960s. Minor quantities of raw material was staged outside at the north end of the lab and inside the lab.	Langan observed humidifier rooms, grinders, mixers, and screener equipment for concrete testing purposes. A concrete-filled catch basin was also observed.
Pilot Plant	1960s: Part of the Technical Services - Concrete Testing Lab to test for cement quality by mimicking the cement making process with raw materials, furnace, and small-scale kiln.	A concrete pad was observed on the north and south ends of the building. A small-scale kiln (decommissioned and removed) was located on the south side. A former furnace was observed inside the building.
Mine Superintendent Office	Office space for mine superintendents and then white cement plant production	Not accessible during the site reconnaissance.

Electrical Building	Contained electrical systems/components. Has been dcommissioned with the equipment removed since the RCP shut down.	Vacant.

- A plugged mine shaft was observed north of the Compressor Building. Mr. Crites informed Langan that this mine shaft was the main shaft for the mine and quarrying operations.
- The area just south of the Compressor Building and southeast of the Change House was described by Mr. Crites as a former boneyard. No equipment/debris or other artifacts were observed in this area. The area appeared covered with concrete that was partially concealed with soils/sediment. This area also was formerly occupied by the Mine Repair shop and Blacksmith Shop, which were demolished before the 1960s. No evidence of staining was observed in the area.
- A locked steel vault was observed on the west side of the Change House, connected to the Technical Services – Material Testing Lab. The lock was cut by Mr. Crites and Langan observed an approximate 250 gallon hydraulic fluid reservoir and pump. The hydraulic pump inside the reservoir appeared to be in good condition with no obvious leakage and/or staining. The reservoir appeared to have a below-ground concrete secondary containment with hoses that ran underground and appeared to connect to the concrete breaker inside the Material Testing Lab, which was adjacent to the vault.
- Staining on the concrete floor below an overhead crane in the Welding Shop was observed.
- The western end of the Subject Property appears to be largely unaffected by previous mining and quarrying operations. A concrete pad, was observed at the western end of the Subject Property. According to Mr. Crites, this area was was used to stage Kaolin clay. This area was not accessible due to fence securing this part of the Subject Property. The UPRR runs along the western boundary of the Subject Property.
- One 1,500 – 2,000 gallon open top AST was observed near the northwestern boundary of the Commercial Quarry. A viscous oil substance was observed at the valve and on the ground underneath the tank.

A map of Subject Property features is provided in Figure 2.

Pits, Ponds, Lagoons

Crestmore Lake was observed in the central portion of the Subject Property. The Commercial Quarry was observed in the eastern portion of the Subject Property.

Pools of Liquid

No pools of liquid were observed at the time of the site reconnaissance.

Storm Drains, Wells, and Cisterns

MW-3 is located on the southern boundary of the Subject Property. MW-4 is located near the southwest corner of the Subject Property. The location of MW-3 and MW-4 is shown on Figure 2.

PCB Transformers and Suspect Equipment

A transformer with a placard indicating "dry type transformer" with a date of 5/1988 was observed inside the Compressor Building. There was no evidence of staining or leakage was observed around the transformer. The transformer is currently being used to power the RCP's AQMD air monitoring system.

Storage Containers and Drums

No storage containers or drums were observed at the Subject Property.

Waste Generation, Storage, and Disposal

Wooden crates/containers used to store cylinders of cored limestone for testing were observed in the former boneyard area. In addition, numerous small cores of limestone were observed in and around the wooden crates/containers. Other than this material, there was no other evidence of waste generation, storage, or disposal on the Subject Property.

Air Emissions or Wastewater Discharges

No air emissions or wastewater discharges were observed at the Subject Property.

Sewage Ejector Pits and Sumps

Two septic tanks are located on the western portion of the Subject Property on APN 175-170-041. There was no visual evidence of impacts in and around the septic tanks. They will need to be decommissioned and removed prior to development on the Subject Property. The tanks

will need to undergo a permitting and inspection process under the oversight of the County of Riverside – Department of Environmental Health.

USTs or ASTs

One 1,500 – 2,000 gallon open top AST was observed near the northwestern boundary of the Commercial Quarry. A viscous oil substance was observed at the valve and a small area (approximately 2'x2') on the ground directly below the valve beneath the tank was observed to be stained.

Monitoring Wells or Remedial Activities

Two groundwater monitoring wells are located on the Subject Property, which include MW-3 (southern boundary) and MW-4, which is located southwest of the seven buildings on the Subject Property. The location of the groundwater monitoring wells are shown on Figure 2.

Stained or Discolored Soils

Stained or discolored soil was not observed at the Subject Property.

Leachate or Seeps

Leachate or seeps was not observed at the Subject Property.

Adjoining and Surrounding Property Uses

The Subject Property is bounded on the west by the UPRR railroad. To the west of the railroad is undeveloped land, a sewer leach field, and Commercial property owned by Skanska, followed by Rubidoux Blvd. The Subject Property is bounded on the north by the RCP. The Subject Property is bounded on the east by Hall Avenue followed by commercial property operated by Earthworks Soil Amendment. Aqua Mansa Road bounds the Subject Property to the southeast, followed by commercial property including the County of Riverside Household Hazardous Waste Facility and Burrtec Waste Industries.

5.2 Interviews

5.2.1 Subject Property Owner

An interview with the Subject Property Owner was not conducted for this Phase I ESA update.

5.2.2 Subject Property Occupants

The Subject Property is currently occupied by RCP which is owned by Martin Marietta at the time of this Phase I ESA update. No previous Subject Property occupants were available for interview as part of this Phase I ESA update.

5.2.3 Owners/Tenants of Adjacent Properties

Owners/tenants of adjacent properties were not available for interview as part of this Phase I ESA update.

6.0 DEVIATIONS AND DATA GAPS

6.1 Deviations

Langan has performed an updated Phase I ESA of the Subject Property using a standard of good commercial and customary practice that is generally consistent with the ASTM E1527-13. Significant deviations were not made to the above referenced standards.

6.2 Data Gaps

In order to address data gaps, additional sources of information may be consulted. According to ASTM E 1527-13, Section 8.3.2.3, "historical research is complete when either: (1) the objectives in 8.3.1 through 8.3.2.2 are achieved; or (2) data failure is encountered. Data failure occurs when all standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met. If data failure is encountered, the report shall document the failure and, if any of the standard historical sources were excluded, give the reasons for the exclusion."

This Phase I ESA update was completed without data gaps, with the following exception: Records or approval letters detailing suspected CKD disposal operations were not located.

Sufficient information has been provided from other data sources to render conclusions regarding the presence of RECs at the Subject Property. Thus, these data gaps are not expected to affect the overall findings and opinions of the Phase I ESA. If additional information provided in the FOIA responses alters the conclusions of this Phase I ESA, we will issue an addendum to this report.

7.0 FINDINGS AND OPINIONS

This Phase I ESA update was conducted in general accordance with the ASTM Practice E1527-13 (Standard Practice for ESA: Phase I ESA Process), which also satisfies the USEPA AAI Rule needed to qualify for the bona fide prospective purchaser liability protections available under the CERCLA. The objective of this Phase I ESA update was to verify the information presented in the previous Phase I ESA and to identify potential new concerns regarding the presence or likely presence, use, or release on the Subject Property of hazardous substances or petroleum products as defined in ASTM E1527-13 as a REC. Based on the results of the Phase I update efforts, the following RECs were identified:

- REC 1: Cement Kiln Dust (CKD) – Based on information provided in Langan's *Phase I Environmental Site Assessment for Riverside Cement Plant* dated June 10, 2016, Crestmore Redevelopment, LLC, and Preliminary Environmental Assessment Report for Agua Mansa Commerce Park, dated 20 December 2017, CKD may have been placed with soil at the Subject Property. According to RCP management, an estimated 250,000 tons of CKD was generated by the former RCP site operations between approximately 1955 and 1979 (ERM, Technical Evaluation 9/30/90 EPA FIT Report, Riverside Cement Company Crestmore Plant, dated November 1991). The majority of the CKD was placed with approximately 48 yds^3 of refractory (basic) bricks, soils, and other materials primarily in the Wet Weather Quarry to the north of the Subject Property. However, historical documentation indicates that some of the CKD was placed on the Subject Property in the Commercial Quarry and an area southwest of the Commercial Quarry (ERM, Technical Evaluation 9/30/90 EPA FIT Report, Riverside Cement Company Crestmore Plant, dated November 1991). Although historical documents indicate that the majority of CKD at the Commercial Quarry was removed and recovered in the late 1980s for mill or kiln feed supplement (ERM EPA FIT Report, 1991), visual observations from site visits on February 28, 2017 and May 11, 2018 identified the potential presence of CKD containing soils in an area southwest of the Commercial Quarry. Historical documents also suggest that the CKD may have been placed along the southern portion of the Subject Property north of groundwater monitoring well MW-3 along with refractory brick which may contain hexavalent chromium. The limits of the suspected CKD containing soil areas are shown in Figure 2.

- REC 2: Mine Shaft and Mine Vents – According to RWQCB records referenced in a 2009 DTSC site screening assessment for the former RCP site, old mine shafts were reportedly used to place various materials. Specifics regarding the nature of these materials are unavailable, and it is unknown whether the mine shaft on the Subject Property was used for this purpose.
- REC 3: Former Blacksmith Shop (demolished) – Although details regarding operations at the Blacksmith Shop are unknown, it is likely that operations utilized quenching fluids such as oils or brines. The location of the former Blacksmith Shop, now demolished, is shown on Figure 2.

- REC 4: AST - One 1,500 – 2,000 gallon open top AST was observed near the northwestern boundary of the Commercial Quarry. A viscous oil substance was observed at the valve and a small area (approximately 2'x2') on the ground directly below the valve beneath the tank was observed to be stained.

- REC 5: Hydraulic Fluid Reservoir – One 250 gallon hydraulic fluid reservoir with a pump was observed on the western side of the Technical Services – Material Testing Lab. The hydraulic pump inside the reservoir appeared to be in good condition with no obvious leakage and/or staining. The reservoir appeared to have a below-ground concrete secondary containment with hoses that ran underground and appeared to connect to the concrete breaker inside the Material Testing Lab, which was adjacent to the vault.

- REC 6: Septic Tanks – Two septic tanks are mapped as being located on the adjacent parcel (APN 175-170-041) which has been included in the Subject Property for the purposes of this Phase I ESA.

- REC 7: Transformers – On the exterior eastern side of the Research Furnace building, two pole-mounted transformers that were identified in Langan's previous Phase I ESA, dated 23 March 2017, were removed. According to Pat Crites (RCP Site Manager), these transformers were removed approximately six to eight months ago and were tested for PCBs. No PCBs were detected and the transformers were moved to the Packhouse, awaiting off-site disposal. Prior to their removal, the transformers were described as being in poor condition and corroded.

The following *de minimis* condition was identified at the Subject Property:

- Staining below an overhead crane was observed inside the Welding Shop. This staining is considered a *de minimis* condition at the Subject Property.

Recent groundwater monitoring activities indicate that the hexavalent chromium groundwater concentrations have remained stable over the past twenty years and that concentrations are in the same range as the data from regional groundwater wells in the SWRCB's GAMA Program. Based on the most recent groundwater monitoring activities from November/December 2016, March 2017, and May 2017 on the Subject Property, groundwater is not considered a REC at the Subject Property.

No Historical RECs (HRECs), Controlled Recognized Environmental Concerns (CRECs), or non-ASTM environmental concerns were identified during this Phase I ESA update.

8.0 REFERENCES

The following references were reviewed as part of this Phase I ESA:

1. AIG Consultants, (1995), Environmental Risk Assessment Survey of Riverside Cement Company, Crestmore Plant, Riverside, California, 18 September 1995
2. Altec Testing and Engineering, (1999), UST Closure Report, June 1999
3. Bechtel Environmental, Inc. (1994), Site Inspection Prioritization, 22 June 1994
4. Cal Tank Testing, (1988), A Final Report, Removal of Storage Tanks, Riverside Cement Company Facility, Riverside, California, March 1988
5. Cal Tank Testing, (1988), A Final Report, Removal of Storage Tanks, Riverside Cement Company Facility, Riverside, California, May 1988
6. California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR) Online Well Finder website (2016), available at http://maps.conservation.ca.gov/doggr/index.html#close, accessed 23 March 2016.
7. Department of Toxic Substances Control (DTSC) EnviroStor website (2016), available at http://www.envirostor.dtsc.ca.gov, accessed 18 March 2016.
8. Ecology and Environment, Inc., (1990) Environmental Protection Agency, Hazardous Site Evaluation Division- Field investigation Team Zone 2, 30 September 1990
9. Environmental Data Resources, Inc., Inquiry Number: 4569494.9, 21 March 2016. Aerial Photo Decade Package.
10. Environmental Data Resources, Inc., Inquiry Number: 4369511.5s, 29 March 2016. City Directory Abstract.
11. Environmental Data Resources, Inc., Inquiry Number: 4569494.4, 21 March 2016. Historical Topographic Map Report.
12. Environmental Data Resources, Inc., Inquiry Number: 4569494.2s, 21 March 2016. Radius Map with GeoCheck.
13. Environmental Data Resources, Inc., Inquiry Number: 4569494.3, 21 March 2016. Sanborn Map Report.
14. Environmental Data Resources, Inc., Inquiry Number: 4569494.6s, 21 March 2016. Vapor Encroachment Screen.
15. ERM-West Inc., (1987) An Investigation of Soil Conditions Below and Adjacent to the Fuel Storage Tank at the Riverside Cement Crestmore Plant, Riverside, California, March 24 – April 1, 1987, 26 June 1987

16. ERM-West, Inc., (1991) Technical Evaluation 9/30/90 EPA FIT Report Riverside Cement Company, Crestmore Plant, November 1991
17. ERM-West, Inc., (1994) SUBJECT: Technical review of EPA Site Inspection Prioritization Report, 7 October 1994
18. ERM EnviroClean-West, Inc., (1995), A Closure Report for the Boiler Blowdown Pond, May 1995
19. Filter Recycling Services, Inc. and Environmental Logistics, Inc., (2016), RE: Project Summary of a Haz Mat Clean-up including tank cleaning, tank removal and lab packing of hazardous waste materials and out-dated chemicals for removal and disposal, 8 February 2016
20. Geomatrix Consultants, Inc. (Geomatrix) (1991), Limited Phase I Site Assessment, Riverside Cement Company, Crestmore Facility, 1500 Rubidoux Blvd., Riverside County, California
21. Langan Engineering and Environmental Services (Langan) (2017), Phase I Environmental Site Assessment for Rubidoux/Agua Mansa Open Space, Jurupa Valley, California, March 23, 2017.
22. Langan Engineering and Environmental Services (Langan) (2017), First Quarter 2017 Groundwater and Surface Water Monitoring Report, May 3, 2017.
23. Langan Engineering and Environmental Services (Langan) (2017), Groundwater Monitoring Summary, August 8, 2017.
24. Langan Engineering and Environmental Services (Langan) (2017), Revised Remedial Investigation Report, November 3, 2017.
25. Langan Engineering and Environmental Services (Langan) (2017), Preliminary Environmental Assessment Report, December 20, 2017.
26. Ryan-Murphy Incorporated, (1995), A Site Assessment Report, 7 July 1995
27. SECOR, (2001), Draft Technical Memorandum No. 1, Records Review for the CKD Areas at the RCC Crestmore Plant, 25 January 2001
28. State Water Resources Control Board (SWRCB) GeoTracker website (2016), available at http://geotracker.waterboards.ca.gov, accessed 21 March 2016.
29. United States Geological Society (USGS) (2016), Fontana 7.5-Minute Quadrangle, San Bernardino, California
30. Paul Martin, (2013) "Mining History, Geology and Rare Minerals at the TXI Crestmore Sky Blue and Chino Hills Mines Presented at the WIM Chapter Meeting at Crestmore" dated 26 September 2013

9.0 STATEMENT OF QUALIFICATIONS

Langan declares that, to the best of its professional knowledge and belief, the personnel who performed this Phase I ESA update meet the definition of Environmental Professional as defined in Subsection 312 10 of 40 CFR 312 and that they have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. They have developed and performed the Phase I ESA update in conformance with the standards and practices set forth in ASTM Practice E1527, which also satisfies the USEPA AAI Rule.

Site Inspection and Report Written By:



Kathleen Lo
Staff Scientist

Report Reviewed By:



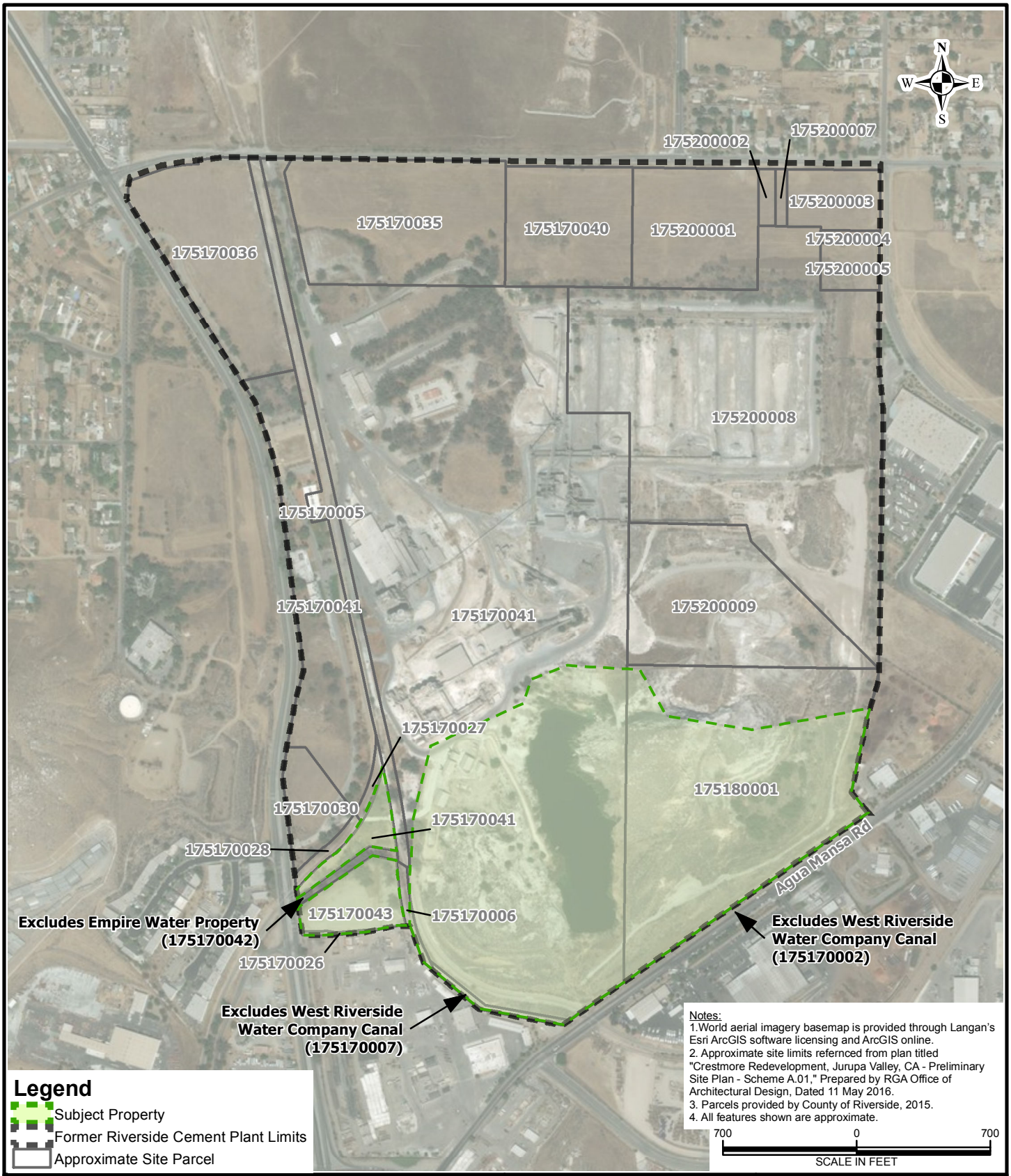
Neil Shukla
Associate

Report Reviewed By:



Rory Johnston
Principal/ Vice President

FIGURES



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Langan International LLC

Collectively known as Langan

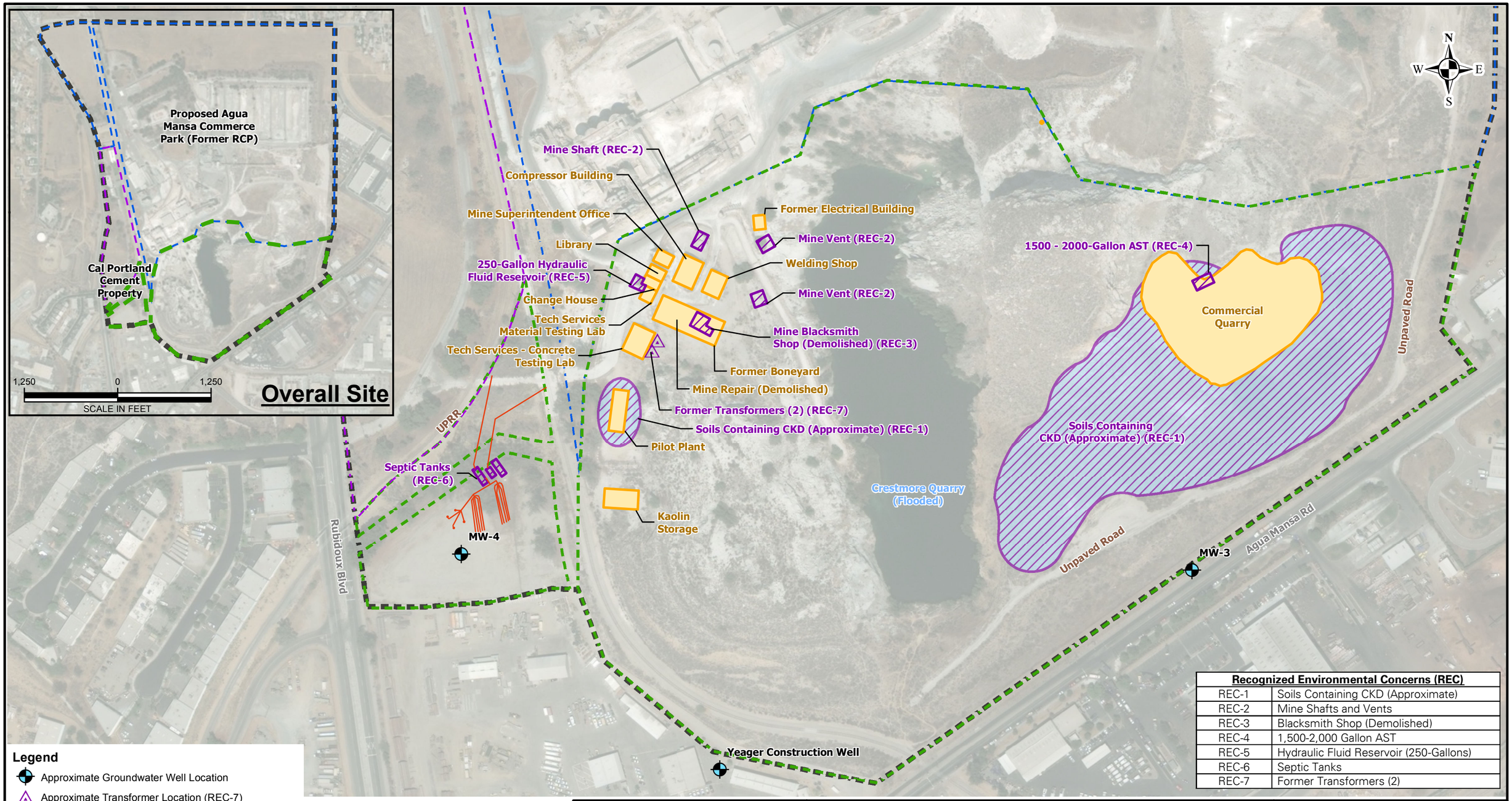
Project
AGUA MANSA COMMERCE PARK
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

Drawing Title
SITE LOCATION MAP AND PARCELS

Project No. 721013501	Figure 1
Date 5/24/2018	
Scale 1 " = 700 '	
Drawn By OG	

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Path: \\langan.com\data\PAR\other\BSAYLOR\GIS_Projects\Agua_Mansa_Crestmore\ArcMap_Documents\Environmental_Figures\Phase 1_May2018\Site Location Map_May2018.mxd



Recognized Environmental Concerns (REC)	
REC-1	Soils Containing CKD (Approximate)
REC-2	Mine Shafts and Vents
REC-3	Blacksmith Shop (Demolished)
REC-4	1,500-2,000 Gallon AST
REC-5	Hydraulic Fluid Reservoir (250-Gallons)
REC-6	Septic Tanks
REC-7	Former Transformers (2)

Legend

- Approximate Groundwater Well Location
- Approximate Transformer Location (REC-7)
- Sewer and Leachfield Lines
- Approximate Location of REC
- Approximate Location of Key Site Features
- Approximate Location of Soils Containing CKD (REC-1)
- Cal Portland Cement Property
- Proposed Agua Mansa Commerce Park (Former RCP)
- Subject Property
- Former Riverside Cement Plant Limits

250 0 250
SCALE IN FEET

Notes:
1.World aerial imagery basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online. Source of aerial imagery is Microsoft from 2011. Credits: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community.
2. Approximate site limits referenced from plan titled "Crestmore Redevelopment, Jurupa Valley, CA - Preliminary Site Plan - Scheme A.01," Prepared by RGA Office of Architectural Design, Dated 11 May 2016.
3. All features shown are approximate.

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ABU DHABI ATHENS DOHA LONDON PANAMA DUBAI ISTANBUL
Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

Project
AGUA MANSA COMMERCE PARK
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

Drawing Title
ENVIRONMENTAL CONDITIONS MAP - SUBJECT PROPERTY

Project No. 721013501
Date MAY 2018
Scale 1 " = 250 '
Drawn By OG
Figure 2

G-3604

Path: \\langan.com\data\PAR\other\BSAYLOR\GIS_Projects\Agua_Mansa_Crestmore\ArcMap_Documents\Environmental_Figures\Phase 1_May2018\Site Plan_RECs_Sewer_South.mxd

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APPENDIX A

PHOTOGRAPHIC LOG



Photo 1: Facing north. The compressor building is to the west and the welding shop is to the east.



Photo 2: Photo shows the interior of the compressor building. White kiln brick is stacked along the building walls.



Photo 3: Dry type transformer inside the compressor building.



Photo 4: Interior of the welding shop facing north. An overhead rail crane is shown in the rear.



Photo 5: Staining underneath an overhead crane inside the welding shop.



Photo 6: Facing west showing a former boneyard area that was formerly occupied by the Mine Repair shop and Mine Blacksmith Shop (REC-3). The Change House is shown in the rear.



Photo 7: Interior of the Technical Services – Material Testing Lab.



Photo 8: Concrete breaker machine inside the Material Testing Lab used to test concrete sample strengths.



Photo 9: Locked steel vault structure on the western side of the Material Testing Lab.



Photo 10: Interior of the steel vault structure. Photo depicts a 250 gallon hydraulic fluid reservoir, pump, and associated hoses, which connect to the concrete breaker in the Material Storage Lab (REC-5).



Photo 11: Facing southwest. Photo depicts a raw material staging area and the Technical Services – Concrete Testing Lab.



Photo 12: Interior of the Technical Services – Concrete Testing Lab. Photo depicts equipment like humidifier rooms, mixers, and a concrete sample testing wall.



Photo 13: Photo depicts a concrete-filled catch basin inside the Concrete Testing Lab.



Photo 14: Facing north. Photo depicts the Pilot Plant and concrete pad, formerly occupied by a small-scale kiln. A former furnace is located inside the structure.



Photo 15: Facing south. Photo depicts a concrete pad area where Kaolin clay was stored.



Photo 16: Facing southeast. Photo depicts the Mine Superintendent Office (left) and the Engineering-Mineral-Research Library (right).



Photo 17: Typical interior of the Engineering-Mineral-Research Library.



Photo 18: Facing northwest. Photo depicts the main mine shaft (REC-2).



Photo 19: Facing southeast. Photo depicts a mine vent (REC-2).



Photo 20: Facing northeast. Photo depicts a 1,500-2,000 gallon open top AST with a viscous oil substance at the eastern valve and underneath the tank (REC-4).



Photo 21: Facing west. Photo depicts the Commercial Quarry and outcrop.



Photo 22: Facing west. Photo shows the Crestmore Lake and several Subject Property structures to the north.



Photo 23: Facing south from the southeastern end of the Subject Property.



Photo 24: Facing east from the northwestern end of the Commercial Quarry.

APPENDIX B

USER/OWNER QUESTIONAIRE

LANGAN

ASTM PRACTICE E 1527-13:
OWNER/OPERATOR/SITE-MANAGER QUESTIONNAIRE

Please complete the below form and return to
Langan Engineering and Environmental Services Inc.

Project Location/Address: 1500 Rubidoux Blvd
Jurupa Valley, CA

ASTM E-1527-13, Section 10.9

	Yes	No	
Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☒	☐	AQMD
Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	☒	☐	
Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products?	☒	☐	

ASTM E-1527-13, Section 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to the Consultant performing the ESA?

	Unaware	Document Exists	Copy will be provided
Environmental site assessment reports	☐	☒	☐
Environmental compliance audit reports	☐	☒	☐
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	☐	☒ Storm water	☐
Registrations for underground and aboveground storage tanks	☒	☐	☐
Material safety data sheets	☐	☒ On-site	☐
Community-right-to-know plan	☐	☒	☒
Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans, facility response plans, etc.	☐	☒ On-site	☐
Reports regarding hydrogeologic conditions on the property or surrounding area	☒	☐	☐
Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	☐	☒	☐

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ASTM PRACTICE E 1527-13: OWNER/OPERATOR/SITE-MANAGER QUESTIONNAIRE

	Unaware	Document Exists	Copy will be provided
Hazardous waste generator notices or reports	☐	☒	☐
Geotechnical studies	☒	☐	☐
Risk Assessments	☐	☒	☐
Recorded Activity and Use Limitations	☒	☐	☐
Environmental Cleanup Reports	☐	☒	☐

Do you have contact information for the prior owner of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Owner's Name _____
Contact Person _____
Address _____
_____
Telephone _____

Do you have contact information for the prior occupant of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Occupant's Name _____
Contact person _____
Address _____
_____
Telephone _____

Do you have information on the prior facility manager of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Facility Manager's Name _____
Contact person _____
Address _____
_____
Telephone _____

This form was completed by:

Property Owner ☐ Operator ☐ Key Site Manager ☐ User ☐ EP ☐

Name: John A. Billain

Address: 2710 Wycliff Road, Raleigh, NC 27607

Signature: John A Billain Date: 5/14/16

5/16/18 - No changes

\\langan.com\data\Woburn\Environmental Due Diligence Committee\Data Request\Updated Questionnaires\Owner-Operator-Site Manager-ASTM E1527-13.doc

LANGAN

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ASTM PRACTICE E 1527-13: USER/CLIENT QUESTIONNAIRE

Please complete the below form and return to
Langan Engineering and Environmental Services Inc.

Providing the following information (if available) to the environmental professional (Langan) is one of the requirements to qualify for one of the *Landowner Liability Protections* offered under CERCLA. Missing or incomplete information could result in a determination that "all appropriate inquiry" is not complete.

General Information

User/Client Name (s): Willian Lynott

Property Name: Gestraie

Address: 1500 Rubidoux

Property Type: industrial

Type of Property Transaction:

- [x] Purchase of property
- [ ] Financing of property
- [ ] Sale of property
- [ ] Ground Lease
- [ ] Build to Suit Lease
- [ ] Other_____

Reason Why Phase I ESA is required: due diligence for aquisition

Site Contact (s): William Brown

Required Information

The citation at the end of each item (e.g. 40 CFR 312.XX) is the section of EPA's November 1, 2005 AAI Final Rule which discusses that item.

(1.) Environmental cleanup liens that are filed or recorded against the *property* (40 CFR 312.25).

Yes ☐ No ☒

Did a search of recorded land title records (or judicial records where appropriate, see Note 1 below) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law? [Please note, unless specifically delegated in the Scope of Work for the Phase I ESA, it is the User's responsibility to undertake a review of recorded land title records and judicial records to identify any environmental liens and to report these liens to the environmental professional conducting a Phase I ESA.]

Note 1 – In certain jurisdictions, federal, tribal, state or local statutes, or regulations specify that environmental liens and AULs be filed in judicial records rather than in land title records. In such cases judicial records must be searched for environmental liens and AULs.

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ASTM PRACTICE E 1527-13: USER/CLIENT QUESTIONNAIRE

(2.) Activity and use limitations that are in place on the site or that have been filed or recorded against the property (40 CFR 312.26(a)(1)(v) and vi)).

	Yes	No
Did a search of recorded land title records (or judicial records where appropriate, see Note 1 above) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law? [Please note, unless specifically delegated in the Scope of Work for the ESA, it is the User's responsibility to undertake a review of recorded land title records and judicial records to identify any activity and use limitations and to report these limitations to the environmental professional conducting a Phase I Environmental Site Assessment.]	☐	☒

(3.) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).

	Yes	No
Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	☐	☒

(4.) Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29).

		Yes	No
(a.)	Does the purchase price being paid for this property reasonably reflect the fair market value of the property? [If no, proceed to Parts 4a and 4b.]	☐	☒
(b.)	If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	☒	☐
(c.)	Identify an explanation for the lower price and provide a written record of such explanation as an attachment. Known environmental issues (CKD landfills)		

(5.) Commonly known or reasonably known or reasonably ascertainable information about the property (40 CFR 312.30).

		Yes	No
	Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example,	☒	☐
(a.)	Do you know the past uses of the property? Concrete crushing & mining for limestone	☐	☒
(b.)	Do you know of specific chemicals that are present or once were present at the property?	☐	☐
(c.)	Do you know of spills or other chemical releases that have taken place at the property?	☐	☒
(d.)	Do you know of any environmental cleanups that have taken place at the property? Report provided summarizing tank removals + Chemical disposal	☒	☐

(6.) The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

	Yes	No
Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property? + potential CKD dust	☒	☐

ASTM E-1527-13, Section 10.9

	Yes	No
Do you know of any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property?	☒	☐
Do you know of any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property?	☒	☐

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ASTM PRACTICE E 1527-13: USER/CLIENT QUESTIONNAIRE

Do you know of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products? Yes ☐ No ☒

ASTM E-1527-13, Section 10.8

Are you aware if any of the documents listed below exists and if so, whether copies can and will be provided to the Consultant performing the ESA?

	Unaware	Document Exists	Copy will be provided
Environmental site assessment reports	☐	☒	☒
Environmental compliance audit reports	☒	☐	☐
Environmental permits (such as solid waste disposal permits, hazardous waste disposal permits, NPDES permits, wastewater permits, underground injection permits)	☒	☐	☐
Registrations for underground and aboveground storage tanks	☒	☐	☐
Material safety data sheets	☒	☐	☐
Community-right-to-know plan	☒	☐	☐
Safety plans; preparedness and prevention plans; spill prevention, countermeasure and control plans, facility response plans, etc.	☒	☐	☐
Reports regarding hydrogeologic conditions on the property or surrounding area	☐	☒	☒
Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property	☒	☐	☐
Hazardous waste generator notices or reports	☒	☐	☐
Geotechnical studies	☒	☐	☐
Risk Assessments	☐	☒	☒
Recorded Activity and Use Limitations	☒	☐	☐
Environmental Cleanup Reports	☐	☒	☒

Do you have contact information for the prior owner of the property? Yes ☐ No ☒
If yes, please provide information below:

Prior Owner's Name TXI

Contact person None available

Address _____

_____

Telephone _____

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ASTM PRACTICE E 1527-13: USER/CLIENT QUESTIONNAIRE

Do you have contact information for the prior occupant of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Occupant's Name _____

Contact person _____

Address _____

_____

Telephone _____ _____

Do you have information on the prior facility manager of the property? **Yes** ☐ **No** ☒
If yes, please provide information below:

Prior Facility Manager's Name _____

Contact person _____

Address _____

_____

Telephone _____

SIGNATURE: WP Lyatt 5/4/16

It is understood that the information presented in this form is an integral part of the Phase I ESA process and that Langan will evaluate and rely on this information in the development of the final Phase I ESA report. NO CHANGES 5/21/16

This form was completed by: WP Lyatt

Property Owner ☐ Operator ☐ Key Site Manager ☐ User ☒ EP ☐

Print/Type Name: William Lyatt

Title: Chief Executive Officer

Company: Viridian Partners

Date: 5/4/16

APPENDIX C

ENVIRONMENTAL DATA RESOURCES INC. RADIUS MAP REPORT

AMCP - Southern Parcel
1500 Rubidoux Blvd
Riverside, CA 92509

Inquiry Number: 5273221.2s
April 27, 2018

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	188
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-6
Physical Setting Source Map	A-14
Physical Setting Source Map Findings	A-16
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

COORDINATES

Latitude (North):	34.0243830 - 34° 1' 27.77''
Longitude (West):	117.3840860 - 117° 23' 2.70''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	464539.7
UTM Y (Meters):	3764731.5
Elevation:	982 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5619058 FONTANA, CA
Version Date:	2012
Northeast Map:	5620416 SAN BERNARDINO SOUTH, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	TXI RIVERSIDE CEMENT	1500 RUBIDOUX BOULEV	FINDS, ECHO		TP
A2	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD	RGA LUST		TP
A3	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEV	RGA LUST		TP
A4	RIVERSIDE CEMENT CO	1500 RUBIDOUX BLVD	HAZNET		TP
A5	RIVERSIDE CEMENT CO	1500 RUBIDOUX BLVD	FINDS		TP
A6	RIVERSIDE CEMENT/TXI	1500 RUBEDOUX BLVD	HAZNET		TP
A7	PANTHER IRON COMPANY	1500 RUBIDOUX BLVD	HAZNET		TP
A8	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD	SWEEPS UST, CA FID UST		TP
A9	RIVERSIDE CEMENT PLA	1500 RUBIDOUX BOULEV	ENVIROSTOR, VCP, HIST UST, EMI		TP
A10	BRINE FAC AND STP, R	1500 RUBIDOUX	LDS		TP
A11	TXI RIVERSIDE CEMENT	1500 RUBIDOUX BLVD	SEMS, ICIS, US AIRS		TP
A12	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD	AST		TP
A13	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD.	TSCA		TP
A14	RIVERSIDE CEMENT CRE	1500 RUBIDOUX BLVD.	AST		TP
A15	BRINE FAC AND STP	1500 RUBIDOUX	FINDS		TP
A16	RIVERSIDE CEMENT CO	1500 RUBIDOUX BLVD	ENVIROSTOR, LUST, WMUDS/SWAT, EMI, HIST CORTESE,...		TP
A17	CRESTMORE QUARRY	1500 RUBIDOUX BLVD	ABANDONED MINES		TP
A18	RIVERSIDE CEMENT COM	1500 RUBIDOUX BLVD	FINDS		TP
B19	FERRELLGAS LP DBA BL	1750 AGUA MANSA RD	RCRA-SQG	Lower	132, 0.025, SSW
B20	AGUA MANSA MRF, LLC	1830 AGUA MANSA ROAD	RCRA-LQG, FINDS	Lower	276, 0.052, SSW
B21	BURRTEC WASTE INDUST	1830 AGUA MANSA RD	AST	Lower	276, 0.052, SSW
B22	HIGH TECH ARCHITECTU	1830 AGUA MANSA RD	SWF/LF, HAZNET	Lower	276, 0.052, SSW
B23	RA NELSON MRF TRANSF	1830 AGUA MANSA RD	SWF/LF, SWRCY, NPDES, PROC	Lower	276, 0.052, SSW
B24	BURRTEC WASTE INDUST	1850 AGUA MANSA RD	AST	Lower	306, 0.058, SSW
B25	BURRTEC WASTE INDUST	1850 ASUA MANSA RD	RCRA-SQG, FINDS, ECHO, HAZNET	Lower	306, 0.058, SSW
B26	BURRTEC WASTE INDUST	1850 AGUA MANSA RD	UST	Lower	306, 0.058, SSW
C27	SKANSKA	1995 AGUA MANSA RD	UST	Lower	692, 0.131, SSW
C28	E L YEAGER CONST CO	1995 AGUA MANSA RD	SWEEPS UST, CA FID UST, EMI, NPDES, WDS	Lower	692, 0.131, SSW
C29	SKANSKA-MAIN YARD	1995 AGUA MANSA RD	AST	Lower	692, 0.131, SSW
D30	RYDER TRUCK RENTAL	5880 20TH ST	RCRA-SQG, SLIC, SWEEPS UST, HIST UST, CA FID UST,...	Lower	884, 0.167, SW
D31	RYDER TRUCK RENTALS,	5880 20TH STREET	SLIC	Lower	884, 0.167, SW
D32	RYDER TRANSPORTATION	5880 20TH ST.	AST	Lower	884, 0.167, SW
D33	RYDER TRANSPORTATION	5880 20TH ST	UST	Lower	884, 0.167, SW
34	POPELINO'S RECYCLING	1880 BROWN AVENUE	LDS, San Bern. Co. Permit	Lower	977, 0.185, ENE
35	CLUB CAR LLC	1203 HALL AVE	RCRA-SQG, FINDS, ECHO	Lower	1163, 0.220, NE
36	NATIONSRENT, INC.	2215 VIA CERRO	UST	Lower	1215, 0.230, South
E37	FLYERS #469	5840 20TH STREET	RCRA-CESQG	Lower	1286, 0.244, SW
E38	FLYERS #469	5840 20TH ST	UST	Lower	1286, 0.244, SW
F39	CAN FIBRE	1755 BROWN AVENUE	RCRA-SQG, FINDS, ECHO, HAZNET, NPDES	Lower	1288, 0.244, ESE

MAPPED SITES SUMMARY

Target Property Address:
1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
F40	SOUTHLAND ENGINEERIN	1755 BROWN ST.	AST	Lower	1288, 0.244, ESE
F41	RIOS RECYCLING	1755 BROWN AVE.	SWF/LF, NPDES, WDS	Lower	1288, 0.244, ESE
42	VARNER CONSTRUCTION	1893 BROWN AVE	RCRA-SQG, LUST, FINDS, ECHO, HAZNET	Lower	1326, 0.251, East
43	BRINE FAC,CRESTMORE	2100 AVALON ST.	WMUDS/SWAT	Lower	1543, 0.292, SW
44	FLEETWOOD VIA RICARD	5300 VIA RICARDO	LUST, NPDES	Lower	2053, 0.389, SE
G45	CERTAINTEED CORP	2100 AVALON ST.	RCRA-SQG, RESPONSE, ENVIROSTOR, LUST, HIST UST,...	Lower	2251, 0.426, WSW
G46	CERTAINTEED CORPORAT	2100 AVALON AVE	HAZNET, HWP	Lower	2251, 0.426, WSW
G47	CERTAINTEED, RIVERSI	2100 AVALON ST	HIST Cal-Sites	Lower	2251, 0.426, WSW
G48	CERTAIN-TEED CORPORA	2100 AVALON	LUST, HIST CORTESE, NPDES	Lower	2251, 0.426, WSW
H49	INLAND CONCRETE	2434	LUST, WMUDS/SWAT, HIST UST, CA FID UST, HIST...	Lower	2470, 0.468, SSW
H50	INLAND CONCRETE ENTE	2434 RUBIDOUX BLVD	LUST, SWEEPS UST, FINDS, WDS	Lower	2470, 0.468, SSW
51	RIOS RECYCLING FACIL	5190 WILSON ST.	SWF/LF	Lower	2637, 0.499, ESE
52	SIERRA ALUMINUM	2345 FLEETWOOD DR	ENVIROSTOR, CHMIRS, NPDES	Lower	3216, 0.609, SSE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
TXI RIVERSIDE CEMENT 1500 RUBIDOUX BOULEV RIVERSIDE, CA 92509	FINDS Registry ID:: 110001199587 ECHO Registry ID: 110001199587	N/A
RIVERSIDE CEMENT 1500 RUBIDOUX BLVD RIVERSIDE, CA	RGA LUST	N/A
RIVERSIDE CEMENT 1500 RUBIDOUX BOULEV RIVERSIDE, CA	RGA LUST	N/A
RIVERSIDE CEMENT CO 1500 RUBIDOUX BLVD RIVERSIDE, CA 92502	HAZNET GEPAID: CAD063844443	N/A
RIVERSIDE CEMENT CO 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	FINDS Registry ID:: 110041108565	N/A
RIVERSIDE CEMENT/TXI 1500 RUBEDOUX BLVD RIVERSIDE, CA 92502	HAZNET GEPAID: CAC001472088	N/A
PANTHER IRON COMPANY 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	HAZNET GEPAID: CAC002584294	N/A
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	SWEEPS UST Status: A Tank Status: A Comp Number: 65436 CA FID UST Facility Id: 33003042 Status: A	N/A
RIVERSIDE CEMENT PLA 1500 RUBIDOUX BOULEV RIVERSIDE, CA 92508	ENVIROSTOR	N/A

	Facility Id: 60002561 Status: Active VCP Status: Active Facility Id: 60002561 HIST UST Facility Id: 00000065436 EMI Facility Id: 800182	
BRINE FAC AND STP, R 1500 RUBIDOUX RIVERSIDE, CA	LDS Status: Completed - Case Closed Global Id: L10003541579	N/A
TXI RIVERSIDE CEMENT 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	SEMS Site ID: 0901505 EPA Id: CAD063844443 ICIS FRS ID:: 110001199587 US AIRS Database: US AIRS (AFS), Date of Government Version: 10/12/2016 EPA plant ID:: 110001199587	CAD063844443
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	AST	N/A
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD. RIVERSIDE, CA 92509	TSCA	N/A
RIVERSIDE CEMENT CRE 1500 RUBIDOUX BLVD. RIVERSIDE, CA	AST	N/A
BRINE FAC AND STP 1500 RUBIDOUX RIVERSIDE, CA 92509	FINDS Registry ID:: 110065419862	N/A
RIVERSIDE CEMENT CO 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	ENVIROSTOR Facility Id: 33140002 Status: Refer: RWQCB LUST Database: LUST REG 8, Date of Government Version: 02/14/2005 Database: RIVERSIDE CO. LUST, Date of Government Version: 01/18/2018 Database: LUST, Date of Government Version: 03/12/2018	N/A

	Status: Completed - Case Closed Facility Status: Case Closed Facility Id: 89210 Global Id: T0606500166 Facility Status: 9 Global ID: T0606500166 WMUDS/SWAT EMI Facility Id: 800182 HIST CORTESE Reg Id: 083301366T NPDES Facility Status: Terminated WDS Facility Status: A Facility Id: 8 33I002053	
CRESTMORE QUARRY 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	ABANDONED MINES	N/A
RIVERSIDE CEMENT COM 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	FINDS Registry ID:: 110065974994	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
ODI ---------- Open Dump Inventory
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register

SCH ---- School Property Evaluation Program
CDL ---- Clandestine Drug Labs
Toxic Pits ---- Toxic Pits Cleanup Act Sites
US CDL ---- National Clandestine Laboratory Register

Local Land Records

LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information
DEED ---- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
CHMIRS ---- California Hazardous Material Incident Report System
MCS ---- Military Cleanup Sites Listing
SPILLS 90 ---- SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR ---- RCRA - Non Generators / No Longer Regulated
FUDS ---- Formerly Used Defense Sites
DOD ---- Department of Defense Sites
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---- Financial Assurance Information
EPA WATCH LIST ---- EPA WATCH LIST
2020 COR ACTION ---- 2020 Corrective Action Program List
TRIS ---- Toxic Chemical Release Inventory System
SSTS ---- Section 7 Tracking Systems
ROD ---- Records Of Decision
RMP ---- Risk Management Plans
RAATS ---- RCRA Administrative Action Tracking System
PRP ---- Potentially Responsible Parties
PADS ---- PCB Activity Database System
FTTS ---- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS ---- Material Licensing Tracking System
COAL ASH DOE ---- Steam-Electric Plant Operation Data
COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---- PCB Transformer Registration Database
RADINFO ---- Radiation Information Database
HIST FTTS ---- FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---- Indian Reservations
FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites
LEAD SMELTERS ---- Lead Smelter Sites
US MINES ---- Mines Master Index File
UXO ---- Unexploded Ordnance Sites
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
CA BOND EXP. PLAN ---- Bond Expenditure Plan
Cortese ---- "Cortese" Hazardous Waste & Substances Sites List
CUPA Listings ---- CUPA Resources List

DRYCLEANERS Cleaner Facilities
ENF Enforcement Action Listing
Financial Assurance Financial Assurance Information Listing
ICE ICE
HWT Registered Hazardous Waste Transporter Database
MINES Mines Site Location Listing
MWMP Medical Waste Management Program Listing
PEST LIC Pesticide Regulation Licenses Listing
Notify 65 Proposition 65 Records
UIC UIC Listing
WASTEWATER PITS Oil Wastewater Pits Listing
WIP Well Investigation Program Case List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP EDR Proprietary Manufactured Gas Plants
EDR Hist Auto EDR Exclusive Historical Auto Stations
EDR Hist Cleaner EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 12/11/2017 has revealed that there is 1

RCRA-LQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
AGUA MANSA MRF, LLC	***1830 AGUA MANSA ROAD***	***SSW 0 - 1/8 (0.052 mi.)***	***B20***	***84***

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/11/2017 has revealed that there are 5 RCRA-SQG sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
FERRELLGAS LP DBA BL	1750 AGUA MANSA RD	SSW 0 - 1/8 (0.025 mi.)	B19	83
BURRTEC WASTE INDUST	***1850 ASUA MANSA RD***	***SSW 0 - 1/8 (0.058 mi.)***	***B25***	***98***
RYDER TRUCK RENTAL	***5880 20TH ST***	***SW 1/8 - 1/4 (0.167 mi.)***	***D30***	***109***
CLUB CAR LLC	***1203 HALL AVE***	***NE 1/8 - 1/4 (0.220 mi.)***	***35***	***117***
CAN FIBRE	***1755 BROWN AVENUE***	***ESE 1/8 - 1/4 (0.244 mi.)***	***F39***	***122***

RCRA-CESQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-CESQG list, as provided by EDR, and dated 12/11/2017 has revealed that there is 1 RCRA-CESQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
FLYERS #469	5840 20TH STREET	SW 1/8 - 1/4 (0.244 mi.)	E37	120

State- and tribal - equivalent NPL

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED CORP	***2100 AVALON ST.***	***WSW 1/4 - 1/2 (0.426 mi.)***	***G45***	***145***

Database: RESPONSE, Date of Government Version: 01/30/2018
Status: Certified
Facility Id: 33320002

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 01/30/2018 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED CORP	***2100 AVALON ST.***	***WSW 1/4 - 1/2 (0.426 mi.)***	***G45***	***145***
Facility Id: 33320002				
Facility Id: 80001506				
Status: Certified				
Status: * Inactive				
SIERRA ALUMINUM	***2345 FLEETWOOD DR***	***SSE 1/2 - 1 (0.609 mi.)***	***52***	***181***
Facility Id: 71002953				
Status: Inactive - Needs Evaluation				

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database.

A review of the SWF/LF list, as provided by EDR, has revealed that there are 4 SWF/LF sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
HIGH TECH ARCHITECTU	***1830 AGUA MANSA RD***	***SSW 0 - 1/8 (0.052 mi.)***	***B22***	***89***
Database: LOS ANGELES CO. LF, Date of Government Version: 01/16/2018				
Site ID: 2759				
Status: Active				
RA NELSON MRF TRANSF	***1830 AGUA MANSA RD***	***SSW 0 - 1/8 (0.052 mi.)***	***B23***	***90***
Database: SWF/LF (SWIS), Date of Government Version: 02/12/2018				
Facility ID: 33-AA-0258				
Facility ID: 33-AA-0319				
Operational Status: Active				
Regulation Status: Permitted				
Regulation Status: Notification				
RIOS RECYCLING	***1755 BROWN AVE.***	***ESE 1/8 - 1/4 (0.244 mi.)***	***F41***	***127***
Database: LOS ANGELES CO. LF, Date of Government Version: 01/16/2018				
Site ID: 2748				

Status: Active

RIOS RECYCLING FACIL	5190 WILSON ST.	ESE 1/4 - 1/2 (0.499 mi.)	51	180

Database: SWF/LF (SWIS), Date of Government Version: 02/12/2018
Facility ID: 33-AA-0355
Operational Status: Active
Regulation Status: Notification

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 6 LUST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
VARNER CONSTRUCTION	***1893 BROWN AVE***	***E 1/4 - 1/2 (0.251 mi.)***	***42***	***130***

Database: LUST REG 8, Date of Government Version: 02/14/2005
Database: VENTURA CO. LUST, Date of Government Version: 05/29/2008
Database: RIVERSIDE CO. LUST, Date of Government Version: 01/18/2018
Database: LUST, Date of Government Version: 03/12/2018
Status: Completed - Case Closed
Facility Status: Case Closed
Facility Id: 95084
Facility Id: 95084
Status: Case Closed
Global Id: T0606500417
Facility Status: 9
Global ID: T0606500417

FLEETWOOD VIA RICARD	***5300 VIA RICARDO***	***SE 1/4 - 1/2 (0.389 mi.)***	***44***	***137***

Database: LUST REG 8, Date of Government Version: 02/14/2005
Database: RIVERSIDE CO. LUST, Date of Government Version: 01/18/2018
Database: LUST, Date of Government Version: 03/12/2018
Status: Completed - Case Closed
Facility Status: Preliminary site assessment underway
Facility Id: 200420231
Global Id: T0606540693
Facility Status: 9
Global ID: T0606540693

CERTAINTEED CORP	***2100 AVALON ST.***	***WSW 1/4 - 1/2 (0.426 mi.)***	***G45***	***145***

Database: LUST REG 8, Date of Government Version: 02/14/2005
Database: RIVERSIDE CO. LUST, Date of Government Version: 01/18/2018
Facility Status: Case Closed
Facility Id: 91654
Facility Status: 9
Global ID: T0606500050

CERTAIN-TEED CORPORA	***2100 AVALON***	***WSW 1/4 - 1/2 (0.426 mi.)***	***G48***	***164***

Database: LUST, Date of Government Version: 03/12/2018
Status: Completed - Case Closed
Global Id: T0606500050

INLAND CONCRETE	***2434***	***SSW 1/4 - 1/2 (0.468 mi.)***	***H49***	***168***

Database: LUST REG 8, Date of Government Version: 02/14/2005
Database: RIVERSIDE CO. LUST, Date of Government Version: 01/18/2018
Database: LUST, Date of Government Version: 03/12/2018

Status: Completed - Case Closed
Facility Status: Leak being confirmed
Facility Id: 9814657
Global Id: T0606500551
Global Id: T0606500028
Facility Status: 9
Global ID: T0606500551

INLAND CONCRETE ENTE ***2434 RUBIDOUX BLVD*** ***SSW 1/4 - 1/2 (0.468 mi.)*** ***H50*** ***177***
Database: LUST REG 8, Date of Government Version: 02/14/2005
Facility Status: Case Closed
Global ID: T0606500028

SLIC: Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the SLIC list, as provided by EDR, has revealed that there are 2 SLIC sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RYDER TRUCK RENTAL	***5880 20TH ST***	***SW 1/8 - 1/4 (0.167 mi.)***	***D30***	***109***
Database: SLIC, Date of Government Version: 03/12/2018 Facility Status: Completed - Case Closed Global Id: SLT8R1734113				
RYDER TRUCK RENTALS,	5880 20TH STREET	SW 1/8 - 1/4 (0.167 mi.)	D31	115
Database: SLIC REG 8, Date of Government Version: 04/03/2008 Facility Status: Closed				

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, has revealed that there are 5 UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BURRTEC WASTE INDUST	1850 AGUA MANSA RD	SSW 0 - 1/8 (0.058 mi.)	B26	102
Database: RIVERSIDE CO. UST, Date of Government Version: 01/18/2018 Database: UST, Date of Government Version: 03/12/2018 Facility Id: 123				
SKANSKA	1995 AGUA MANSA RD	SSW 1/8 - 1/4 (0.131 mi.)	C27	102
Database: RIVERSIDE CO. UST, Date of Government Version: 01/18/2018 Database: UST, Date of Government Version: 03/12/2018 Facility Id: 290				
RYDER TRANSPORTATION	5880 20TH ST	SW 1/8 - 1/4 (0.167 mi.)	D33	116
Database: RIVERSIDE CO. UST, Date of Government Version: 01/18/2018 Database: UST, Date of Government Version: 03/12/2018				

Facility Id: 660 Facility Id: FA0015453				
NATIONSRENT, INC. Database: UST, Date of Government Version: 03/12/2018 Facility Id: 540	2215 VIA CERRO	S 1/8 - 1/4 (0.230 mi.)	36	120
FLYERS #469 Database: RIVERSIDE CO. UST, Date of Government Version: 01/18/2018 Database: UST, Date of Government Version: 03/12/2018	5840 20TH ST	SW 1/8 - 1/4 (0.244 mi.)	E38	122

AST: A listing of aboveground storage tank petroleum storage tank locations.

A review of the AST list, as provided by EDR, and dated 07/06/2016 has revealed that there are 5 AST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BURRTEC WASTE INDUST	1830 AGUA MANSA RD	SSW 0 - 1/8 (0.052 mi.)	B21	88
BURRTEC WASTE INDUST	1850 AGUA MANSA RD	SSW 0 - 1/8 (0.058 mi.)	B24	98
SKANSKA-MAIN YARD	1995 AGUA MANSA RD	SSW 1/8 - 1/4 (0.131 mi.)	C29	108
RYDER TRANSPORTATION	5880 20TH ST.	SW 1/8 - 1/4 (0.167 mi.)	D32	115
SOUTHLAND ENGINEERIN	1755 BROWN ST.	ESE 1/8 - 1/4 (0.244 mi.)	F40	127

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there are 2 WMUDS/SWAT sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BRINE FAC,CRESTMORE	2100 AVALON ST.	SW 1/4 - 1/2 (0.292 mi.)	43	136
INLAND CONCRETE	***2434***	***SSW 1/4 - 1/2 (0.468 mi.)***	***H49***	***168***

SWRCY: A listing of recycling facilities in California.

A review of the SWRCY list, as provided by EDR, and dated 12/11/2017 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RA NELSON MRF TRANSF Cert Id: RC7808	***1830 AGUA MANSA RD***	***SSW 0 - 1/8 (0.052 mi.)***	***B23***	***90***

Local Lists of Hazardous waste / Contaminated Sites

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED, RIVERSI	2100 AVALON ST	WSW 1/4 - 1/2 (0.426 mi.)	G47	162

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 2 SWEEPS UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
E L YEAGER CONST CO Status: A Tank Status: A Comp Number: 83	***1995 AGUA MANSA RD***	***SSW 1/8 - 1/4 (0.131 mi.)***	***C28***	***102***
RYDER TRUCK RENTAL Status: A Tank Status: A Comp Number: 8135	***5880 20TH ST***	***SW 1/8 - 1/4 (0.167 mi.)***	***D30***	***109***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RYDER TRUCK RENTAL Facility Id: 00000008135	***5880 20TH ST***	***SW 1/8 - 1/4 (0.167 mi.)***	***D30***	***109***

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 2 CA FID UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
E L YEAGER CONST CO	***1995 AGUA MANSA RD***	***SSW 1/8 - 1/4 (0.131 mi.)***	***C28***	***102***

Facility Id: 33002486
Status: A

RYDER TRUCK RENTAL	***5880 20TH ST***	***SW 1/8 - 1/4 (0.167 mi.)***	***D30***	***109***

Facility Id: 33002250
Status: A

Other Ascertainable Records

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 2 HIST CORTESE sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAIN-TEED CORPORA	***2100 AVALON***	***WSW 1/4 - 1/2 (0.426 mi.)***	***G48***	***164***
Reg Id: 083300480T				
INLAND CONCRETE	***2434***	***SSW 1/4 - 1/2 (0.468 mi.)***	***H49***	***168***
Reg Id: 083303309T				
Reg Id: 083300195T				

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 02/20/2018 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CERTAINTEED CORPORAT	***2100 AVALON AVE***	***WSW 1/4 - 1/2 (0.426 mi.)***	***G46***	***161***
EPA Id: CAD990663320				
Cleanup Status: CLOSED				

San Bern. Co. Permit: San Bernardino County Fire Department Hazardous Materials Division.

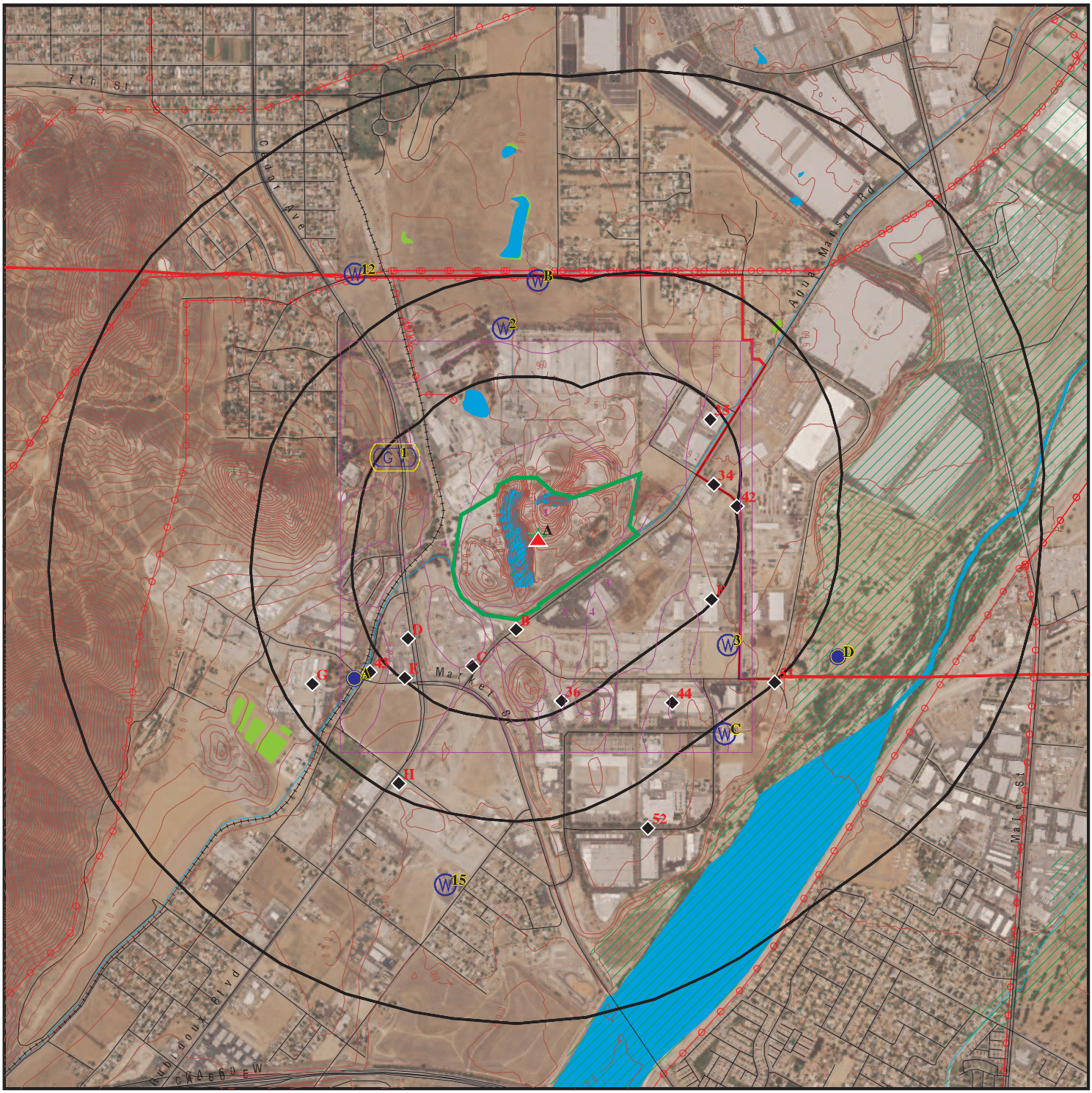
A review of the San Bern. Co. Permit list, as provided by EDR, and dated 11/30/2017 has revealed that there is 1 San Bern. Co. Permit site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
POPELINO'S RECYCLING	***1880 BROWN AVENUE***	***ENE 1/8 - 1/4 (0.185 mi.)***	***34***	***116***
Facility Status: ACTIVE				
Facility Id: FA0014913				

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 5273221.2S



0 1/4 1/2 1 Miles

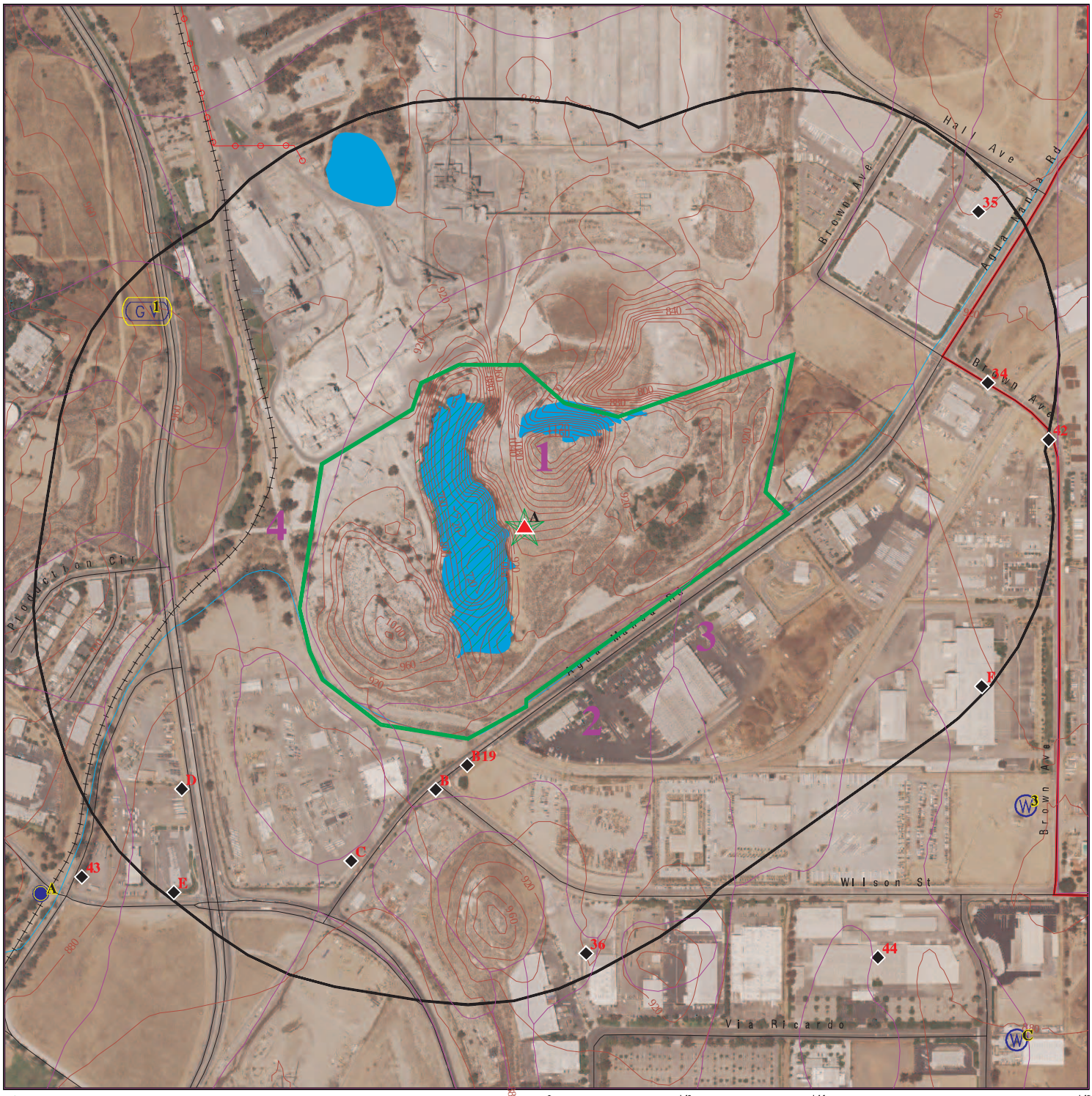
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Upgradient Area
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	AMCP - Southern Parcel	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Rachel Prohoroff
LAT/LONG:	34.024383 / 117.384086	INQUIRY #:	5273221.2s
	G-3649	DATE:	April 27, 2018 7:11 am

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DETAIL MAP - 5273221.2S



0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	AMCP - Southern Parcel	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Rachel Prohoroff
LAT/LONG:	34.024383 / 117.384086	INQUIRY #:	5273221.2s
	G-3650	DATE:	April 27, 2018 7:12 am

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500	1	0	0	0	NR	NR	1
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		1	0	NR	NR	NR	1
RCRA-SQG	0.250		2	3	NR	NR	NR	5
RCRA-CESQG	0.250		0	1	NR	NR	NR	1
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	1	0	NR	1
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000	2	0	0	1	1	NR	4
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		2	1	1	NR	NR	4
State and tribal leaking storage tank lists								
LUST	0.500	1	0	0	6	NR	NR	7

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	2	0	NR	NR	2
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		1	4	NR	NR	NR	5
AST	0.250	2	2	3	NR	NR	NR	7
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500	1	0	0	0	NR	NR	1
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500	1	0	0	2	NR	NR	3
SWRCY	0.500		1	0	0	NR	NR	1
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	1	0	NR	1
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250	1	0	2	NR	NR	NR	3
HIST UST	0.250	1	0	1	NR	NR	NR	2
CA FID UST	0.250	1	0	2	NR	NR	NR	3
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001	1	0	NR	NR	NR	NR	1
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001	1	0	NR	NR	NR	NR	1
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001	1	0	NR	NR	NR	NR	1
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001	1	0	NR	NR	NR	NR	1
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001	1	0	NR	NR	NR	NR	1
FINDS	0.001	4	0	NR	NR	NR	NR	4
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001	1	0	NR	NR	NR	NR	1
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001	2	0	NR	NR	NR	NR	2
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001	3	0	NR	NR	NR	NR	3

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500	1	0	0	2	NR	NR	3
HWP	1.000		0	0	1	0	NR	1
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.001		0	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001	1	0	NR	NR	NR	NR	1
San Bern. Co. Permit	0.250		0	1	NR	NR	NR	1
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		1	0	0	NR	NR	1
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001	1	0	NR	NR	NR	NR	1
WIP	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001	2	0	NR	NR	NR	NR	2
- Totals --		31	10	20	15	1	0	77

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **TXI RIVERSIDE CEMENT CO - CRESTMORE PLT** **FINDS** **1016068533**
Target **1500 RUBIDOUX BOULEVARD** **ECHO** **N/A**
Property **RIVERSIDE, CA 92509**

Site 1 of 18 in cluster A

Actual: **982 ft.**

FINDS:

Registry ID: 110001199587

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

SUPERFUND (NON-NPL)

AIR MAJOR

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1016068533
Registry ID: 110001199587
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110001199587

A2 **RIVERSIDE CEMENT** **RGA LUST** **S114677341**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA**

Site 2 of 18 in cluster A

Actual: **982 ft.**

RGA LUST:

2012	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2011	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2010	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2009	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2008	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2007	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2006	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2005	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2004	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2003	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2002	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD

RIVERSIDE CEMENT (Continued) **S114677341**

2001 RIVERSIDE CEMENT 1500 RUBIDOUX BLVD

A3 **RIVERSIDE CEMENT** **RGA LUST** **S114677342**
Target **1500 RUBIDOUX BOULEVARD** **N/A**
Property **RIVERSIDE, CA**

Site 3 of 18 in cluster A

Actual: **982 ft.**

RGA LUST:

1998	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1997	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1996	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1995	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1994	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1993	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1992	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD

A4 **RIVERSIDE CEMENT CO A CA GEN PARTNERSHIP** **HAZNET** **S113001343**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92502**

Site 4 of 18 in cluster A

Actual: **982 ft.**

HAZNET:

envid:	S113001343
Year:	2016
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	TXD055141378
TSD County:	99
Waste Category:	Liquids with polychloronated biphenyls >= 50 Mg./L
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	1.0425
Cat Decode:	Liquids with polychloronated biphenyls >= 50 Mg./L
Method Decode:	Incineration--Thermal Destruction Other Than Use As A Fuel
Facility County:	Riverside

envid:	S113001343
Year:	2016
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	CAD982444481
TSD County:	San Bernardino
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

RIVERSIDE CEMENT CO A CA GEN PARTNERSHIP (Continued) **S113001343**

Tons:	0.063
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside
envid:	S113001343
Year:	2016
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	CAD982444481
TSD County:	San Bernardino
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	3.5025
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside
envid:	S113001343
Year:	2016
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Polychlorinated biphenyls and material containing PCBs
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	2.59411
Cat Decode:	Polychlorinated biphenyls and material containing PCBs
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Riverside
envid:	S113001343
Year:	2015
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	TXD055141378
TSD County:	99

RIVERSIDE CEMENT CO A CA GEN PARTNERSHIP (Continued) **S113001343**

Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Incineration--Thermal Destruction Other Than Use As A Fuel
Tons: 0.066
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

Click this hyperlink while viewing on your computer to access
126 additional CA_HAZNET: record(s) in the EDR Site Report.

A5 **RIVERSIDE CEMENT CO (EIS USE)** **FINDS** **1014675933**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92509**

Site 5 of 18 in cluster A

Actual: 982 ft.

FINDS:

Registry ID: 110041108565

Environmental Interest/Information System
HAZARDOUS AIR POLLUTANT MAJOR

STATE MASTER

Click this hyperlink while viewing on your computer to access
additional FINDS: detail in the EDR Site Report.

A6 **RIVERSIDE CEMENT/TXI RIVERSIDE CEMENT** **HAZNET** **S112893771**
Target **1500 RUBEDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92502**

Site 6 of 18 in cluster A

Actual: 982 ft.

HAZNET:
envid: S112893771
Year: 1999
GEPAID: CAC001472088
Contact: TXI RIVERSIDE CEMENT
Telephone: 9096836458
Mailing Name: Not reported
Mailing Address: PO BOX 56040
Mailing City,St,Zip: RIVERSIDE, CA 925170000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 12.9270
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

A7 **PANTHER IRON COMPANY INC** **HAZNET** **S112941758**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92509**

Site 7 of 18 in cluster A

Actual:
982 ft.

HAZNET:

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	D006
Disposal Method:	Disposal, Land Fill
Tons:	32.02
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	D008
Disposal Method:	Disposal, Land Fill
Tons:	15.17
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	D006
Disposal Method:	Disposal, Other
Tons:	94.39
Cat Decode:	Not reported
Method Decode:	Not reported

PANTHER IRON COMPANY INC (Continued) **S112941758**

Facility County: Riverside

A8 **RIVERSIDE CEMENT COMPANY** **SWEEPS UST** **S101619622**
Target **1500 RUBIDOUX BLVD** **CA FID UST** **N/A**
Property **RIVERSIDE, CA 92509**

Site 8 of 18 in cluster A

Actual:
982 ft.

SWEEPS UST:

Status:	Active
Comp Number:	65436
Number:	1
Board Of Equalization:	44-018479
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	33-000-065436-000008
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	2

Status:	Active
Comp Number:	65436
Number:	1
Board Of Equalization:	44-018479
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	33-000-065436-000009
Tank Status:	A
Capacity:	10000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	33003042
Regulated By:	UTNKA
Regulated ID:	00065436
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7146833660
Mail To:	Not reported
Mailing Address:	P O BOX 832
Mailing Address 2:	Not reported
Mailing City,St,Zip:	RIVERSIDE 92509
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported

RIVERSIDE CEMENT COMPANY (Continued) **S101619622**

NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

A9 **RIVERSIDE CEMENT PLANT REDEVELOPMENT** **ENVIROSTOR** **U001576600**
Target **1500 RUBIDOUX BOULEVARD** **VCP** **N/A**
Property **RIVERSIDE, CA 92508** **HIST UST**
EMI

Site 9 of 18 in cluster A

Actual:
982 ft.

ENVIROSTOR:
Facility ID: 60002561
Status: Active
Status Date: 09/20/2017
Site Code: 401799
Site Type: Voluntary Cleanup
Site Type Detailed: Voluntary Cleanup
Acres: 207
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Xihong (Scarlett) Zhai
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: , 60
Senate: , 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 34.02863
Longitude: -117.3855
APN: 175-170-035 through -036, 175-170-040, 175-170-041, 175-180-001, 175-200-001, 175-200-002 through -005, 175-200-007 through -009
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 175-170-035 through -036
Alias Type: APN
Alias Name: 175-170-040
Alias Type: APN
Alias Name: 175-170-041
Alias Type: APN
Alias Name: 175-180-001
Alias Type: APN
Alias Name: 175-200-001
Alias Type: APN
Alias Name: 175-200-002 through -005
Alias Type: APN
Alias Name: 175-200-007 through -009
Alias Type: APN
Alias Name: 401799
Alias Type: Project Code (Site Code)
Alias Name: 60002561
Alias Type: Envirostor ID Number

RIVERSIDE CEMENT PLANT REDEVELOPMENT (Continued) **U001576600**

Completed Info:

Completed Area Name:	Lot 1
Completed Sub Area Name:	Not reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not reported
Completed Area Name:	Lot 4
Completed Sub Area Name:	Not reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not reported
Completed Area Name:	Lot 9
Completed Sub Area Name:	Not reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not reported
Completed Area Name:	Lot 2
Completed Sub Area Name:	Not reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not reported
Completed Area Name:	Lot 6
Completed Sub Area Name:	Not reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not reported
Completed Area Name:	Lot 7
Completed Sub Area Name:	Not reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not reported
Completed Area Name:	Lot 5
Completed Sub Area Name:	Not reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not reported
Completed Area Name:	Lot 3
Completed Sub Area Name:	Not reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not reported
Completed Area Name:	Lot 8
Completed Sub Area Name:	Not reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

RIVERSIDE CEMENT PLANT REDEVELOPMENT (Continued) **U001576600**

Completed Document Type: Application
Completed Date: 10/04/2017
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Site Characterization Report
Future Due Date: 2019
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Preliminary Endangerment Assessment Report
Schedule Due Date: 04/06/2018
Schedule Revised Date: Not reported

VCP:
Facility ID: 60002561
Site Type: Voluntary Cleanup
Site Type Detail: Voluntary Cleanup
Site Mgmt. Req.: NONE SPECIFIED
Acres: 207
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Xihong (Scarlett) Zhai
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 401799
Assembly: , 60
Senate: , 31
Special Programs Code: Not reported
Status: Active
Status Date: 09/20/2017
Restricted Use: NO
Funding: Responsible Party
Lat/Long: 34.02863 / -117.3855
APN: 175-170-035 through -036, 175-170-040, 175-170-041, 175-180-001, 175-200-001, 175-200-002 through -005, 175-200-007 through -009
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 175-170-035 through -036
Alias Type: APN
Alias Name: 175-170-040
Alias Type: APN
Alias Name: 175-170-041
Alias Type: APN
Alias Name: 175-180-001
Alias Type: APN
Alias Name: 175-200-001
Alias Type: APN
Alias Name: 175-200-002 through -005
Alias Type: APN
Alias Name: 175-200-007 through -009
Alias Type: APN
Alias Name: 401799

RIVERSIDE CEMENT PLANT REDEVELOPMENT (Continued) **U001576600**

Alias Type: Project Code (Site Code)
Alias Name: 60002561
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Lot 1
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 01/16/2018
Comments: Not reported

Completed Area Name: Lot 4
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 01/16/2018
Comments: Not reported

Completed Area Name: Lot 9
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 01/16/2018
Comments: Not reported

Completed Area Name: Lot 2
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 01/16/2018
Comments: Not reported

Completed Area Name: Lot 6
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 01/16/2018
Comments: Not reported

Completed Area Name: Lot 7
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 01/16/2018
Comments: Not reported

Completed Area Name: Lot 5
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 01/16/2018
Comments: Not reported

Completed Area Name: Lot 3
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 01/16/2018
Comments: Not reported

Completed Area Name: Lot 8
Completed Sub Area Name: Not reported
Completed Document Type: California Land Reuse and Revitalization Agreement
Completed Date: 01/16/2018
Comments: Not reported

RIVERSIDE CEMENT PLANT REDEVELOPMENT (Continued) **U001576600**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Application
Completed Date: 10/04/2017
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Site Characterization Report
Future Due Date: 2019
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Preliminary Endangerment Assessment Report
Schedule Due Date: 04/06/2018
Schedule Revised Date: Not reported

HIST UST:
File Number: 0001F6CC
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F6CC.pdf
Region: STATE
Facility ID: 00000065436
Facility Type: Other
Other Type: CEMENT
Contact Name: Not reported
Telephone: 7146833660
Owner Name: GIFFORD-HILL INC.
Owner Address: 300 EAST JOHN CARPENTER FREEWA
Owner City,St,Zip: IRVING, TX 75062
Total Tanks: 0007

Tank Num: 001
Container Num: DIESEL #1
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: GASOLINE#1
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: AB #1
Year Installed: Not reported
Tank Capacity: 00002000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: None

RIVERSIDE CEMENT PLANT REDEVELOPMENT (Continued) **U001576600**

Tank Num: 004
Container Num: AB #2
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: None

Tank Num: 005
Container Num: AB #3
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: PRODUCT
Type of Fuel: 06
Container Construction Thickness: Not reported
Leak Detection: Visual

Tank Num: 006
Container Num: DIESEL 2A
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 007
Container Num: DISEL #2B
Year Installed: Not reported
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Click here for Geo Tracker PDF:

EMI:
Year: 1987
County Code: 33
Air Basin: SC
Facility ID: 800182
Air District Name: SC
SIC Code: 3255
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 9
Reactive Organic Gases Tons/Yr: 4
Carbon Monoxide Emissions Tons/Yr: 233
NOX - Oxides of Nitrogen Tons/Yr: 555
SOX - Oxides of Sulphur Tons/Yr: 68
Particulate Matter Tons/Yr: 110
Part. Matter 10 Micrometers and Smllr Tons/Yr: 98

Year: 1990

RIVERSIDE CEMENT PLANT REDEVELOPMENT (Continued) **U001576600**

County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3255
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	21
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	107
NOX - Oxides of Nitrogen Tons/Yr:	59
SOX - Oxides of Sulphur Tons/Yr:	61
Particulate Matter Tons/Yr:	97
Part. Matter 10 Micrometers and Smllr Tons/Yr:	89

Year:	1995
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3255
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	12
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	84
NOX - Oxides of Nitrogen Tons/Yr:	51
SOX - Oxides of Sulphur Tons/Yr:	12
Particulate Matter Tons/Yr:	47
Part. Matter 10 Micrometers and Smllr Tons/Yr:	43

Year:	1997
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	46

Year:	1998
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD

RIVERSIDE CEMENT PLANT REDEVELOPMENT (Continued) **U001576600**

Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7
Reactive Organic Gases Tons/Yr:	6
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	44

Year:	1999
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	46

Year:	2000
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	46

Year:	2001
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	46
NOX - Oxides of Nitrogen Tons/Yr:	59

RIVERSIDE CEMENT PLANT REDEVELOPMENT (Continued) **U001576600**

SOX - Oxides of Sulphur Tons/Yr:	17
Particulate Matter Tons/Yr:	41
Part. Matter 10 Micrometers and Smllr Tons/Yr:	38

Year:	2009
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3.1786142691247098E-2
Reactive Organic Gases Tons/Yr:	0.0179197
Carbon Monoxide Emissions Tons/Yr:	0.15273999999999999
NOX - Oxides of Nitrogen Tons/Yr:	0.26882
SOX - Oxides of Sulphur Tons/Yr:	0.0011255
Particulate Matter Tons/Yr:	3.7936100000000001
Part. Matter 10 Micrometers and Smllr Tons/Yr:	3.49106344

Year:	2011
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.023880149034
Reactive Organic Gases Tons/Yr:	0.01282
Carbon Monoxide Emissions Tons/Yr:	0.12405
NOX - Oxides of Nitrogen Tons/Yr:	0.21599
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2.30864
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2.12480328

Year:	2015
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.091183547074
Reactive Organic Gases Tons/Yr:	0.090377524
Carbon Monoxide Emissions Tons/Yr:	0.010587099
NOX - Oxides of Nitrogen Tons/Yr:	0.02105819
SOX - Oxides of Sulphur Tons/Yr:	6.3007e-005
Particulate Matter Tons/Yr:	4.650935804
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1.8672431973

A10 **BRINE FAC AND STP, RIVERSIDE CEMENT CO.** **LDS** **S121132484**
Target **1500 RUBIDOUX** **N/A**
Property **RIVERSIDE, CA**

Site 10 of 18 in cluster A

Actual: **982 ft.**

LDS:

Global Id:	L10003541579
Latitude:	34.02892
Longitude:	-117.3865
Case Type:	Land Disposal Site
Status:	Completed - Case Closed
Status Date:	11/02/2009
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Caseworker:	KDP
Local Agency:	Not reported
RB Case Number:	8 332000001
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Not reported
EDR Link ID:	L10003541579
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

A11 **TXI RIVERSIDE CEMENT CO - CRESTMORE PLT** **SEMS** **1000218306**
Target **1500 RUBIDOUX BLVD** **ICIS** **CAD063844443**
Property **RIVERSIDE, CA 92509** **US AIRS**

Site 11 of 18 in cluster A

Actual: **982 ft.**

SEMS:

Site ID:	901505
EPA ID:	CAD063844443
Cong District:	36
FIPS Code:	6065
Latitude:	Not reported
Longitude:	Not reported
FF:	N
NPL:	Not on the NPL
Non NPL Status:	Other Cleanup Activity: State-Lead Cleanup

SEMS Detail:

Region:	9
Site ID:	901505
EPA ID:	CAD063844443
Site Name:	RIVERSIDE CEMENT CO CRESTMORE PLT
NPL:	N
FF:	N
OU:	0
Action Code:	SI
Action Name:	SI
SEQ:	1
Start Date:	Not reported
Finish Date:	12/1/1990
Qual:	L
Current Action Lead:	EPA Perf

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Region:	9
Site ID:	901505
EPA ID:	CAD063844443
Site Name:	RIVERSIDE CEMENT CO CRESTMORE PLT
NPL:	N
FF:	N
OU:	0
Action Code:	DS
Action Name:	DISCVRY
SEQ:	1
Start Date:	1980-08-01 00:00:00
Finish Date:	8/1/1980
Qual:	Not reported
Current Action Lead:	EPA Perf

Region:	9
Site ID:	901505
EPA ID:	CAD063844443
Site Name:	RIVERSIDE CEMENT CO CRESTMORE PLT
NPL:	N
FF:	N
OU:	0
Action Code:	PA
Action Name:	PA
SEQ:	1
Start Date:	Not reported
Finish Date:	9/1/1988
Qual:	H
Current Action Lead:	EPA Perf

Region:	9
Site ID:	901505
EPA ID:	CAD063844443
Site Name:	RIVERSIDE CEMENT CO CRESTMORE PLT
NPL:	N
FF:	N
OU:	0
Action Code:	VA
Action Name:	OTHR CLEANUP
SEQ:	1
Start Date:	2007-06-06 00:00:00
Finish Date:	Not reported
Qual:	Not reported
Current Action Lead:	St Perf

Region:	9
Site ID:	901505
EPA ID:	CAD063844443
Site Name:	RIVERSIDE CEMENT CO CRESTMORE PLT
NPL:	N
FF:	N
OU:	0
Action Code:	OO
Action Name:	SITE REASS
SEQ:	2
Start Date:	Not reported
Finish Date:	6/6/2007

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Qual: Not reported
Current Action Lead: St Perf

Region: 9
Site ID: 901505
EPA ID: CAD063844443
Site Name: RIVERSIDE CEMENT CO CRESTMORE PLT
NPL: N
FF: N
OU: 0
Action Code: OO
Action Name: SITE REASS
SEQ: 1
Start Date: 2002-07-01 00:00:00
Finish Date: 6/30/2003
Qual: L
Current Action Lead: St Perf

Region: 9
Site ID: 901505
EPA ID: CAD063844443
Site Name: RIVERSIDE CEMENT CO CRESTMORE PLT
NPL: N
FF: N
OU: 0
Action Code: PA
Action Name: PA
SEQ: 2
Start Date: 1984-10-01 00:00:00
Finish Date: 1/1/1985
Qual: L
Current Action Lead: St Perf

ICIS:
Enforcement Action ID: CASCAA0000060650000300120
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300120
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300119
FRS ID: 110001199587

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300119
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not reported

Enforcement Action ID:	CASCAA0000060650000300107
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300107
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not reported

Enforcement Action ID:	CASCAA0000060650000300106
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300106
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not reported

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Enforcement Action ID: CASCAA0000060650000300096
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300096
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300095
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300095
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300077
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300077
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300076
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300076
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300066
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300066
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300065
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300065
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300061
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300061
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300060
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300060
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300043
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300043
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300042
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300042
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300037
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300037
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

Enforcement Action ID: CASCAA0000060650000300036
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300036
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not reported

US AIRS (AFS):
Envid: 1000218306
Region Code: 09
County Code: CA065
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
D and B Number: Not reported
Facility Site Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Primary SIC Code: 3255
NAICS Code: 327124
Default Air Classification Code: MAJ
Facility Type of Ownership Code: POF
Air CMS Category Code: TVM
HPV Status: Not reported

US AIRS (AFS):
Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: MACT Standards (40 CFR Part 63)
Activity Date: 2008-03-05 00:00:00
Activity Status Date: 2008-04-03 17:10:01
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: MACT Standards (40 CFR Part 63)
Activity Date: 2008-03-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1984-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1985-01-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1986-03-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1987-05-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1987-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1988-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1989-11-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1990-11-19 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1991-12-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 1993-11-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2012-02-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2012-07-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2012-07-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2013-03-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2013-10-08 00:00:00

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: New Source Review Permit Requirements
Activity Date: 2014-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 1999-03-05 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2008-09-24 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2009-09-02 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2009-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2013-01-31 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2013-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2014-08-28 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-02-10 00:00:00
Activity Status Date: 2015-03-03 17:58:17
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:08:29
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:15:03
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-02-11 00:00:00
Activity Status Date: 2016-05-06 12:08:28
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-02-27 00:00:00
Activity Status Date: 2016-05-06 12:07:30
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-05-18 00:00:00
Activity Status Date: 2016-05-24 16:14:33
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2016-05-18 00:00:00

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: 2016-05-24 16:15:49
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1978-12-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1979-06-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1980-05-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1980-06-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1981-05-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1981-06-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1982-06-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1983-03-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1983-12-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1984-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1985-01-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1986-03-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-01-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-05-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1987-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1988-11-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1989-11-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1990-11-19 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1991-12-12 00:00:00

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1992-12-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1993-11-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1995-11-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1997-08-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-02-24 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2007-09-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-02-18 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-07-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-08-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-09-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-12-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-06-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-02-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-03-01 00:00:00

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-05-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-02-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-07-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-07-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-09-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-12-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-03-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-04-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-06-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-10-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-10-09 00:00:00
Activity Status Date: 1998-10-09 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-08 00:00:00

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: 2008-07-08 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-15 00:00:00
Activity Status Date: 2008-07-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-06-26 00:00:00
Activity Status Date: 2009-06-26 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-09-15 00:00:00
Activity Status Date: 2011-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-09-15 00:00:00
Activity Status Date: 2013-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-02-06 00:00:00
Activity Status Date: 2014-02-06 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 1998-09-18 00:00:00
Activity Status Date: 1998-09-18 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-04-25 00:00:00
Activity Status Date: 2008-04-25 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-05-07 00:00:00
Activity Status Date: 2008-05-07 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-11-13 00:00:00
Activity Status Date: 2008-11-13 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2011-06-01 00:00:00
Activity Status Date: 2011-06-01 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-05-10 00:00:00
Activity Status Date: 2013-05-10 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-09-18 00:00:00
Activity Status Date: 2013-09-18 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2001-03-07 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2008-09-24 00:00:00
Activity Group: Case File
Activity Type: Case File

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2009-09-02 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2009-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2013-01-31 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported
Activity Status Date: 2013-12-17 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: Not reported

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: 2014-08-28 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-10-08 00:00:00
Activity Status Date: 2015-06-03 16:12:48
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-11-17 00:00:00
Activity Status Date: 2015-06-03 16:14:08
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-02-10 00:00:00
Activity Status Date: 2015-03-03 17:58:17
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-02-27 00:00:00
Activity Status Date: 2015-06-03 16:10:43
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:08:29
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2015-05-27 00:00:00
Activity Status Date: 2015-06-03 16:15:03
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2016-02-11 00:00:00
Activity Status Date: 2016-05-06 12:08:28
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2016-02-27 00:00:00
Activity Status Date: 2016-05-06 12:07:30
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2016-05-18 00:00:00
Activity Status Date: 2016-05-24 16:14:33
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2016-05-18 00:00:00
Activity Status Date: 2016-05-24 16:15:49
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Active

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 1997-08-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 1999-12-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2001-04-17 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2005-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2006-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-02-24 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-08-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-09-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-02-18 00:00:00

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-07-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-07-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-08-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-09-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-12-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2010-06-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-02-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-03-01 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-05-25 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-05-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-02-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-07-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-07-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-09-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2012-12-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-03-01 00:00:00

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-03-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-04-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-06-26 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-10-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-02-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-05-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-05-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-05-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2000-04-15 00:00:00
Activity Status Date: 2000-04-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-07-08 00:00:00
Activity Status Date: 2008-07-08 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-07-15 00:00:00
Activity Status Date: 2008-07-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2009-06-26 00:00:00
Activity Status Date: 2009-06-26 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-09-15 00:00:00
Activity Status Date: 2011-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-09-15 00:00:00
Activity Status Date: 2013-09-15 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2014-02-06 00:00:00
Activity Status Date: 2014-02-06 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Formal
Activity Status: Final Order Issued

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2000-02-01 00:00:00
Activity Status Date: 2000-02-01 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-04-25 00:00:00
Activity Status Date: 2008-04-25 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-05-07 00:00:00

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT (Continued) **1000218306**

Activity Status Date: 2008-05-07 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-11-13 00:00:00
Activity Status Date: 2008-11-13 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-06-01 00:00:00
Activity Status Date: 2011-06-01 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-05-10 00:00:00
Activity Status Date: 2013-05-10 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

Region Code: 09
Programmatic ID: AIR CASCA0000606500003
Facility Registry ID: 110001199587
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2013-09-18 00:00:00
Activity Status Date: 2013-09-18 00:00:00
Activity Group: Enforcement Action
Activity Type: Administrative - Informal
Activity Status: Achieved

A12 **RIVERSIDE CEMENT COMPANY- CRESTMORE FACILITY** **AST** **A100423904**
Target **1500 RUBIDOUX BLVD** **N/A**
Property **RIVERSIDE, CA 92509**

Site 12 of 18 in cluster A

Actual: **982 ft.**

AST:

Certified Unified Program Agencies:	Not reported
Owner:	Riverside Cement Company
Total Gallons:	Not reported
CERSID:	10470340
Facility ID:	Not reported
Business Name:	RIVERSIDE CEMENT COMPANY
Phone:	951-774-2500
Fax:	Not reported
Mailing Address:	245 Ward Road
Mailing Address City:	Midlothian
Mailing Address State:	TX
Mailing Address Zip Code:	76065
Operator Name:	Riverside Cement Company
Operator Phone:	951-774-2500
Owner Phone:	760-617-8141
Owner Mail Address:	245 Ward Road
Owner State:	TX
Owner Zip Code:	76065
Owner Country:	United States
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	CAD063844443

A13 **RIVERSIDE CEMENT COMPANY - CRESTMORE PLANT** **TSCA** **1014200494**
Target **1500 RUBIDOUX BLVD.** **N/A**
Property **RIVERSIDE, CA 92509**

Site 13 of 18 in cluster A

Actual: **982 ft.**

Click this hyperlink while viewing on your computer to access additional TSCA detail in the EDR Site Report.

A14 **RIVERSIDE CEMENT CRESTMORE PLANT** **AST** **A100108116**
Target **1500 RUBIDOUX BLVD.** **N/A**
Property **RIVERSIDE, CA**

Site 14 of 18 in cluster A

Actual: **982 ft.**

AST:

Certified Unified Program Agencies:	Riverside
Owner:	RIVERSIDE CEMENT COMPANY
Total Gallons:	5,000
CERSID:	Not reported
Facility ID:	Not reported
Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported

RIVERSIDE CEMENT CRESTMORE PLANT (Continued) **A100108116**

Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported
Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

A15 **BRINE FAC AND STP** **FINDS** **1023253185**
Target **1500 RUBIDOUX** **N/A**
Property **RIVERSIDE, CA 92509**

Site 15 of 18 in cluster A

Actual: 982 ft.

FINDS:

Registry ID: 110065419862

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

A16 **RIVERSIDE CEMENT CO (EIS USE)** **ENVIROSTOR** **S103443287**
Target **1500 RUBIDOUX BLVD** **LUST** **N/A**
Property **RIVERSIDE, CA 92509** **WMUDS/SWAT**
EMI

Site 16 of 18 in cluster A **HIST CORTESE**
NPDES

Actual: 982 ft. **WDS**

ENVIROSTOR:

Facility ID:	33140002
Status:	Refer: RWQCB
Status Date:	01/11/2011
Site Code:	401056
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	10
NPL:	NO
Regulatory Agencies:	US EPA
Lead Agency:	US EPA

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Program Manager: Not reported
Supervisor: Eileen Mananian
Division Branch: Cleanup Cypress
Assembly: 60
Senate: 31
Special Program: EPA - PASI
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 34.03354
Longitude: -117.3898
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: Polychlorinated biphenyls (PCBs Chromium VI
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD063844443
Alias Type: EPA Identification Number
Alias Name: 401056
Alias Type: Project Code (Site Code)
Alias Name: 33140002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 10/12/1983
Comments: FACILITY IDENTIFIED ID FROM ERRIS

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Discovery
Completed Date: 04/25/1983
Comments: FACILITY IDENTIFIED ID FROM REGION 9 EMS DATABASE

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 04/11/1995
Comments: NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 05/19/1989
Comments: SITE SCREENING DONE FIT PA REASSESSMENT COMPLETED 8/2/88 RECOMMENDED HIGH PRIORITY SSI UNDER CERCLA; DHS CONCURS WITH RECOMMENDATION

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 06/01/1984
Comments: T/C W/ MALLORY S.MAY,GIFFORD HILL CO,214 -258-7175, 7/16/84 -1)SOURCE ACT: KLIN FIRED, CEMENT MFG 2)YR OF OPER: 1914 TO PRESENT. WASTE: CR CONTMN KILN BRICK. USED KILN BRICK WAS DISP IN A LDFL FROM 1955 TO 1979. SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 06/06/2007
Comments: Site Screening approved by EPA. "OCA Start".

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: PA/SI Reassessment
Completed Date: 05/18/2009
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST:
Lead Agency: RIVERSIDE COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500166
Global Id: T0606500166
Latitude: 34.0308386890794
Longitude: -117.388611886578
Status: Completed - Case Closed
Status Date: 11/05/1991
Case Worker: SCB
RB Case Number: 083301366T
Local Agency: RIVERSIDE COUNTY LOP
File Location: Local Agency Warehouse
Local Case Number: 89210
Potential Media Affect: Soil
Potential Contaminants of Concern: Heating Oil / Fuel Oil
Site History: Not reported

LUST:
Global Id: T0606500166
Contact Type: Local Agency Caseworker
Contact Name: SHARON BOLTINGHOUSE
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: sbolting@rivco.org
Phone Number: 9519558980

LUST:
Global Id: T0606500166
Action Type: ENFORCEMENT
Date: 11/04/1991
Action: File review - #RCDEH Upload Site File 10/15/2015

Global Id: T0606500166

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Action Type: Other
Date: 11/01/1987
Action: Leak Reported

Global Id: T0606500166
Action Type: ENFORCEMENT
Date: 11/05/1991
Action: Closure/No Further Action Letter - #RCDEH1105

Global Id: T0606500166
Action Type: REMEDIATION
Date: 03/01/1989
Action: Excavation

LUST:
Global Id: T0606500166
Status: Open - Case Begin Date
Status Date: 11/01/1987

Global Id: T0606500166
Status: Open - Site Assessment
Status Date: 11/01/1987

Global Id: T0606500166
Status: Open - Site Assessment
Status Date: 02/29/1988

Global Id: T0606500166
Status: Open - Remediation
Status Date: 03/01/1989

Global Id: T0606500166
Status: Completed - Case Closed
Status Date: 11/05/1991

LUST REG 8:
Region: 8
County: Riverside
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083301366T
Local Case Num: Not reported
Case Type: Soil only
Substance: Bunker Fuel Oil
Qty Leaked: Not reported
Abate Method: Not reported
Cross Street: Not reported
Enf Type: Not reported
Funding: Not reported
How Discovered: Not reported
How Stopped: Not reported
Leak Cause: Not reported
Leak Source: Not reported
Global ID: T0606500166
How Stopped Date: Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Enter Date:	12/6/1989
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	12/7/1989
Discover Date:	11/1/1987
Enforcement Date:	Not reported
Close Date:	11/5/1991
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	10/1/1989
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	12/6/1989
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.0271887
Longitude:	-117.3898002
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	PAH
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: RCC PROPOSES TO MIX THE CONTAMINATED SOIL WITH CEMENT AND USE IT FOR PAVING ON SITE, APPROVED BY RCEH 12/13/90.

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	89210
Employee:	Boltinghous-LOP
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Not reported
Primary Waste:	DOMIND
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

construction wastes, manure, vegetable or animal solid and semisolid waste).

Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Private
Agency Name:	RIVERSIDE CEMENT COMPANY
Agency Department:	Not reported
Agency Address:	PO BOX 832
Agency City,St,Zip:	RIVERSIDE CA 92502
Agency Contact:	Not reported
Agency Telephone:	9096833660
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	Not reported
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	8
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	3241
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	True
Solid Waste Assessment Test Program:	False
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Not reported
Sub Chapter 15:	True
Regional Board Project Officer:	Not reported
Number of WMUDS at Facility:	0
Section Range:	Not reported
RCRA Facility:	No
Waste Discharge Requirements:	H
Self-Monitoring Rept. Frequency:	Quarterly Submittal
Waste Discharge System ID:	8 332000001
Solid Waste Information ID:	Not reported

EMI:

Year:	1996

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3255
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	39
NOX - Oxides of Nitrogen Tons/Yr:	149
SOX - Oxides of Sulphur Tons/Yr:	66
Particulate Matter Tons/Yr:	54
Part. Matter 10 Micrometers and Smllr Tons/Yr:	50

Year:	2002
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	73
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2003
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	73
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	2004
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.289508
Reactive Organic Gases Tons/Yr:	0.26
Carbon Monoxide Emissions Tons/Yr:	0.75097
NOX - Oxides of Nitrogen Tons/Yr:	72.6925
SOX - Oxides of Sulphur Tons/Yr:	1.208824
Particulate Matter Tons/Yr:	0.05006
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.05

Year:	2005
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.57899
Reactive Organic Gases Tons/Yr:	1.256253035
Carbon Monoxide Emissions Tons/Yr:	11.3
NOX - Oxides of Nitrogen Tons/Yr:	73.2
SOX - Oxides of Sulphur Tons/Yr:	4.86
Particulate Matter Tons/Yr:	62.3104
Part. Matter 10 Micrometers and Smllr Tons/Yr:	33.9260864

Year:	2006
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.049977653408348326
Reactive Organic Gases Tons/Yr:	.83
Carbon Monoxide Emissions Tons/Yr:	2.323
NOX - Oxides of Nitrogen Tons/Yr:	61.961
SOX - Oxides of Sulphur Tons/Yr:	2.599
Particulate Matter Tons/Yr:	106.956
Part. Matter 10 Micrometers and Smllr Tons/Yr:	97.99428

Year:	2007
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.043561845063478607
Reactive Organic Gases Tons/Yr:	.83
Carbon Monoxide Emissions Tons/Yr:	2.323
NOX - Oxides of Nitrogen Tons/Yr:	61.961

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

SOX - Oxides of Sulphur Tons/Yr: 2.599
Particulate Matter Tons/Yr: 106.956
Part. Matter 10 Micrometers and Smllr Tons/Yr: 97.99428

Year: 2008
County Code: 33
Air Basin: SC
Facility ID: 800182
Air District Name: SC
SIC Code: 3241
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: .7269285903408251728
Reactive Organic Gases Tons/Yr: .326309126
Carbon Monoxide Emissions Tons/Yr: .4
NOX - Oxides of Nitrogen Tons/Yr: 10.94
SOX - Oxides of Sulphur Tons/Yr: 2.52
Particulate Matter Tons/Yr: 17.768865875
Part. Matter 10 Micrometers and Smllr Tons/Yr: 16.365356605

Year: 2012
County Code: 33
Air Basin: SC
Facility ID: 800182
Air District Name: SC
SIC Code: 3241
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0.042662419163
Reactive Organic Gases Tons/Yr: 0.02969
Carbon Monoxide Emissions Tons/Yr: 0.11428
NOX - Oxides of Nitrogen Tons/Yr: 0.37817
SOX - Oxides of Sulphur Tons/Yr: 0.00194
Particulate Matter Tons/Yr: 4.11788
Part. Matter 10 Micrometers and Smllr Tons/Yr: 3.78922912

Year: 2013
County Code: 33
Air Basin: SC
Facility ID: 800182
Air District Name: SC
SIC Code: 3241
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 4.1434347314e-005
Reactive Organic Gases Tons/Yr: 2.8523e-005
Carbon Monoxide Emissions Tons/Yr: 7.3451e-005
NOX - Oxides of Nitrogen Tons/Yr: 0.00019883
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0.003042273
Part. Matter 10 Micrometers and Smllr Tons/Yr: 0.001221835008

Year: 2014
County Code: 33

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.026101689543
Reactive Organic Gases Tons/Yr:	0.02511
Carbon Monoxide Emissions Tons/Yr:	0.03163
NOX - Oxides of Nitrogen Tons/Yr:	0.02527
SOX - Oxides of Sulphur Tons/Yr:	9e-005
Particulate Matter Tons/Yr:	6.626795
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2.660097

HIST CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	083301366T

NPDES:

Npdes Number:	CAS000001
Facility Status:	Terminated
Agency Id:	0
Region:	8
Regulatory Measure Id:	210701
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I002053
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/30/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	06/24/2016
Discharge Name:	TXI Riverside Cement Company
Discharge Address:	PO Box 146
Discharge City:	Oro Grande
Discharge State:	California
Discharge Zip:	92368
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	210701
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I002053
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	06/24/2016
Discharge Name:	Not reported

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	05/09/2008
PROCESSED DATE:	03/30/1992
STATUS CODE NAME:	Terminated
STATUS DATE:	08/03/2016
PLACE SIZE:	294
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Stewart Minter
FACILITY CONTACT TITLE:	Operations Manager
FACILITY CONTACT PHONE:	951-774-2519
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	stewart.minter@martinmarietta.com
OPERATOR NAME:	TXI Riverside Cement Company
OPERATOR ADDRESS:	PO Box 146
OPERATOR CITY:	Oro Grande
OPERATOR STATE:	California
OPERATOR ZIP:	92368
OPERATOR CONTACT NAME:	Kevin Grogan
OPERATOR CONTACT TITLE:	General Manager
OPERATOR CONTACT PHONE:	760-245-5321
OPERATOR CONTACT PHONE EXT:	5283
OPERATOR CONTACT EMAIL:	kevin.grogan@martinmarietta.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	951-201-5238
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	David Perkins
CERTIFIER TITLE:	General Manager
CERTIFICATION DATE:	24-JUN-16

RIVERSIDE CEMENT CO (EIS USE) (Continued) **S103443287**

PRIMARY SIC: 3241-Cement, Hydraulic
SECONDARY SIC: Not reported
TERTIARY SIC: Not reported

WDS:
Facility ID: Santa Ana River 33I002053
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 8
Facility Telephone: Not reported
Facility Contact: Not reported
Agency Name: RIVERSIDE CEMENT COMPANY
Agency Address: PO BOX 832
Agency City,St,Zip: RIVERSIDE 92502
Agency Contact: RICHARD BALL
Agency Telephone: 9096833660
Agency Type: Private
SIC Code: 0
SIC Code 2: Not reported
Primary Waste Type: Not reported
Primary Waste: Not reported
Waste Type2: Not reported
Waste2: Not reported
Primary Waste Type: Not reported
Secondary Waste: Not reported
Secondary Waste Type: Not reported
Design Flow: 0
Baseline Flow: 0
Reclamation: Not reported
POTW: Not reported
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

A17 **CRESTMORE QUARRY** **ABANDONED MINES** **1022836166**
Target Property **1500 RUBIDOUX BLVD** **N/A**
RIVERSIDE, CA 92509

Site 17 of 18 in cluster A

Actual: 982 ft.

ABANDONED MINES:

Mine ID:	0400010
Mine Type:	Facility
Mine Status Description:	Abandoned
Mine Status Date:	2015-11-01 00:00:00
Coal (C) or Metal (M) Mine:	M
Controller ID:	M00174
Controller Name:	Martin Marietta Materials Inc
Operator ID:	L15861
Operator name:	Riverside Cement Co
Address of Record Street:	1500 Rubidoux Blvd
Address of Record PO Box:	Not reported
Address of Record City:	Riverside
Address of Record State:	CA
Address of Record Zip Code:	92509
Assessment Address Street:	Not reported
Assessment Address PO Box:	832
Assessment Address City:	RIVERSIDE
Assessment Address State:	CA
Assessment Address Zip Code:	925020832
Mine Health and Safety Address Street:	Not reported
Mine Health and Safety Address PO Box:	832
Mine Health and Safety Address City:	Riverside
Mine Health and Safety Address State:	CA
Mine Health and Safety Address Zip Code:	92502
Latitude:	34.033889
Longitude:	117.390278

A18 **RIVERSIDE CEMENT COMPANY- CRESTMORE FACILITY** **FINDS** **1023305084**
Target Property **1500 RUBIDOUX BLVD** **N/A**
RIVERSIDE, CA 92509

Site 18 of 18 in cluster A

Actual: 982 ft.

FINDS:

Registry ID: 110065974994

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

B19
SSW
< 1/8
0.025 mi.
132 ft.

FERRELLGAS LP DBA BLUE RHINO OF LOS ANGELES
1750 AGUA MANSA RD
RUBIDOUX, CA 92509

Site 1 of 8 in cluster B

RCRA-SQG | **1008372009** | **CAR000161638**

Relative: Lower

Actual: 892 ft.

RCRA-SQG:

Date form received by agency:	01/03/2008
Facility name:	FERRELLGAS LP DBA BLUE RHINO OF LOS ANGELES
Facility address:	1750 AGUA MANSA RD RUBIDOUX, CA 92509-2402
EPA ID:	CAR000161638
Contact:	STEVE R HOLMES
Contact address:	1750 AGUA MANSA RD RUBIDOUX, CA 92509-2402
Contact country:	US
Contact telephone:	951-321-4720
Contact email:	SHOLMES@BLUERHINO.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	FERRELLGAS LP DBA BLUE RHINO
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	05/01/2005
Owner/Op end date:	Not reported

Owner/operator name:	FERRELLGAS LP DBA BLUE RHINO
Owner/operator address:	470 W HANES MILL RD STE 200 WINSTON SALEM, NC 27105
Owner/operator country:	US
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	05/01/2005
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No

FERRELLGAS LP DBA BLUE RHINO OF LOS ANGELES (Continued) **1008372009**

Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

Historical Generators:
Date form received by agency: 04/11/2005
Site name: PLATINUM PROPANE
Classification: Large Quantity Generator

. Waste code: D007
. Waste name: CHROMIUM

Violation Status: No violations found

B20 **AGUA MANSA MRF, LLC** **RCRA-LQG** **1014386692**
SSW **1830 AGUA MANSA ROAD** **FINDS** **CAL000162179**
< 1/8 **RIVERSIDE, CA 92509**
0.052 mi.
276 ft. **Site 2 of 8 in cluster B**

Relative: **Lower**
Actual: **886 ft.**

RCRA-LQG:
Date form received by agency: 08/30/2010
Facility name: AGUA MANSA MRF, LLC
Facility address: 1830 AGUA MANSA ROAD
RIVERSIDE, CA 92509
EPA ID: CAL000162179
Mailing address: AGUA MANSA ROAD
RIVERSIDE, CA 92509
Contact: RANDY R MILLS
Contact address: AGUA MANSA ROAD
RIVERSIDE, CA 92509
Contact country: US
Contact telephone: 951-786-0655
Contact email: RANDY@BURRTEC.COM
EPA Region: 09
Land type: County
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely

AGUA MANSA MRF, LLC (Continued) **1014386692**

hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	BURRTEC WASTE INDUSTRIES, INC
Owner/operator address:	Not reported
	Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	11/19/1997
Owner/Op end date:	Not reported
Owner/operator name:	RIVERSIDE COUNTY WASTE
Owner/operator address:	FREDRICK STREET
	MORENO VALLEY, CA 92553
Owner/operator country:	Not reported
Owner/operator telephone:	951-486-3200
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	County
Owner/Operator Type:	Owner
Owner/Op start date:	01/19/1997
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

. Waste code:	141
. Waste name:	Off-specification, aged, or surplus inorganics
. Waste code:	181
. Waste name:	Other inorganic solid waste
. Waste code:	232
. Waste name:	Pesticides and other waste associated with pesticide production

AGUA MANSA MRF, LLC (Continued) **1014386692**

. Waste code: 331
. Waste name: Off-specification, aged, or surplus organics

. Waste code: 343
. Waste name: Unspecified organic liquid mixture

. Waste code: 352
. Waste name: Other organic solids

. Waste code: 551
. Waste name: Laboratory waste chemicals

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: P108
. Waste name: STRYCHNIDIN-10-ONE, & SALTS (OR) STRYCHNINE, & SALTS

. Waste code: U249
. Waste name: ZINC PHOSPHIDE ZN3P2, WHEN PRESENT AT CONCENTRATIONS OF 10% OR LESS

. Waste code: U279
. Waste name: CARBARYL (OR) 1-NAPHTHALENOL, METHYLCARBAMATE

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Universal Waste - General
Date violation determined: 10/22/2015
Date achieved compliance: 11/20/2015
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/22/2015
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Universal Waste - General
Date violation determined: 10/22/2015
Date achieved compliance: 10/27/2015
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/22/2015
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported

AGUA MANSA MRF, LLC (Continued) **1014386692**

Area of violation: Universal Waste - General
Date violation determined: 10/22/2015
Date achieved compliance: 10/22/2015
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/22/2015
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 08/23/2010
Date achieved compliance: 08/23/2010
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/23/2010
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: State Statute or Regulation
Date violation determined: 08/22/2008
Date achieved compliance: 09/04/2008
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/22/2008
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 10/22/2015
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Universal Waste - General
Date achieved compliance: 11/20/2015
Evaluation lead agency: State

Evaluation date: 10/22/2015
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Universal Waste - General
Date achieved compliance: 10/27/2015
Evaluation lead agency: State

Evaluation date: 10/22/2015
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: Universal Waste - General

AGUA MANSA MRF, LLC (Continued) **1014386692**

Date achieved compliance: 10/22/2015
Evaluation lead agency: State

Evaluation date: 08/23/2010
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: State Statute or Regulation
Date achieved compliance: 08/23/2010
Evaluation lead agency: State

Evaluation date: 08/22/2008
Evaluation: FOCUSED COMPLIANCE INSPECTION
Area of violation: State Statute or Regulation
Date achieved compliance: 09/04/2008
Evaluation lead agency: State

FINDS:

Registry ID: 110055707622

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

B21 **BURRTEC WASTE INDUSTRIES, INC.** **AST** **A100417903**
SSW **1830 AGUA MANSA RD** **N/A**
< 1/8 **RIVERSIDE, CA 92509**
0.052 mi.
276 ft. **Site 3 of 8 in cluster B**

Relative: **Lower**

Actual: **886 ft.**

AST:
Certified Unified Program Agencies: Not reported
Owner: Burrtec Waste Industries, Inc.
Total Gallons: Not reported
CERSID: 10320859
Facility ID: Not reported
Business Name: Burrtec Waste Industries, Inc.
Phone: (951) 786-0544
Fax: (951) 786-0538
Mailing Address: 9890 Cherry Ave
Mailing Address City: Fontana
Mailing Address State: CA
Mailing Address Zip Code: 92335
Operator Name: Agua Manda MRF LLC.
Operator Phone: (951) 786-0544
Owner Phone: (909) 429-4200
Owner Mail Address: 9890 Cherry Ave
Owner State: CA
Owner Zip Code: 92335
Owner Country: United States
Property Owner Name: Not reported
Property Owner Phone: Not reported
Property Owner Mailing Address: Not reported
Property Owner City: Not reported
Property Owner Stat : Not reported
Property Owner Zip Code: Not reported

BURRTEC WASTE INDUSTRIES, INC. (Continued) **A100417903**

Property Owner Country: Not reported
EPAID: CAL000162179

B22 **HIGH TECH ARCHITECTURAL PRODUCTS** **SWF/LF** **S112977742**
SSW **1830 AGUA MANSA RD** **HAZNET** **N/A**
< 1/8 **RIVERSIDE, CA 92509**
0.052 mi.
276 ft. **Site 4 of 8 in cluster B**

Relative:
Lower

Actual:
886 ft.

LOS ANGELES CO. LF:

Site ID:	2759
Alt. Address:	N/A
Site Contact:	Not reported
Site Contact Phone:	(951) 786-0655
Site Email:	Not reported
Site Website:	N/A
Site Type:	Out-of-County Facility
Site SWIS Number:	33-AA-0258
Beginning Operation Date:	N/A
Ending Operation Date:	N/A
Local Enforcement Agency:	County of Riverside Community Health Agency
Maximun Depth Fill(Ft):	N/A
Permitted Capacity:	4000
Present Use:	Large Volume Transfer/Proc Facility
Remaining Capacity(Million):	N/A
Status:	Active
Waste Accepted:	Construction & Demolition;Green Materials;Household Trash;Industrial Non-Hazardous;
Hours of Operation:	Monday - Sunday 6 am - 8 pm
Disposal Area (Acre):	N/A

Detail As Of 01/2014:

Operator Name:	Unknown
Operator Address:	Not reported
Operator City/State/Zip:	Not reported
Operator Contact:	Not reported
Operator Telephone:	Not reported
Operator Email:	Not reported
Owner Name:	Unknown
Owner Address:	Not reported
Owner City/State/Zip:	Not reported
Owner Contact:	Not reported
Owner Telephone:	Not reported
Owner Email:	Not reported

HAZNET:

envid:	S112977742
Year:	2009
GEPAID:	CAC002642108
Contact:	HAROLD ELDRIDGE
Telephone:	9517857592
Mailing Name:	Not reported
Mailing Address:	2950 JEFFERSON ST STE A
Mailing City,St,Zip:	RIVERSIDE, CA 925048320
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery

HIGH TECH ARCHITECTURAL PRODUCTS (Continued) **S112977742**

(H010-H129) Or (H131-H135)
Tons: 0.004
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: S112977742
Year: 2009
GEPAID: CAC002642108
Contact: HAROLD ELDRIDGE
Telephone: 9517857592
Mailing Name: Not reported
Mailing Address: 2950 JEFFERSON ST STE A
Mailing City,St,Zip: RIVERSIDE, CA 925048320
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.0108
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: S112977742
Year: 2009
GEPAID: CAC002642108
Contact: HAROLD ELDRIDGE
Telephone: 9517857592
Mailing Name: Not reported
Mailing Address: 2950 JEFFERSON ST STE A
Mailing City,St,Zip: RIVERSIDE, CA 925048320
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Unspecified organic liquid mixture
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.1054
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

B23 **RA NELSON MRF TRANSFER STATION** **SWF/LF** **S108199310**
SSW **1830 AGUA MANSA RD** **SWRCY** **N/A**
< 1/8 **RIVERSIDE, CA 92509** **NPDES**
0.052 mi. **PROC**
276 ft. **Site 5 of 8 in cluster B**

Relative: **Lower**
Actual: **886 ft.**

SWF/LF (SWIS):
Region: STATE
Facility ID: 33-AA-0258
Lat/Long: 34.02106 / -117.3853
Owner Name: Riverside County Dept. of Waste Resource
Owner Telephone: 9514863200
Owner Address: Hans W. Kernkamp
Owner Address2: 14310 Frederick St.

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Owner City,St,Zip:	Moreno Valley, CA 92553
Operational Status:	Active
Operator:	Agua Mansa MRF, LLC
Operator Phone:	9517860655
Operator Address:	Not reported
Operator Address2:	9890 Cherry Avenue
Operator City,St,Zip:	Fontana, CA 92335
Permit Date:	05/15/2012
Permit Status:	Permitted
Permitted Acreage:	Not reported
Activity:	Chipping and Grinding Activity Fac./ Op.
Regulation Status:	Permitted
Landuse Name:	Suburban,Open Space - Nonirrigated,Industrial
GIS Source:	Map
Category:	Composting
Unit Number:	03
Inspection Frequency:	Monthly
Accepted Waste:	Not reported
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	Not reported
SWIS Num:	33-AA-0258
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported
Lat/Long:	34.02106 / -117.3853

Region:	STATE
Facility ID:	33-AA-0258
Lat/Long:	34.02106 / -117.3853
Owner Name:	Riverside County Dept. of Waste Resource
Owner Telephone:	9514863200
Owner Address:	Hans W. Kernkamp
Owner Address2:	14310 Frederick St.
Owner City,St,Zip:	Moreno Valley, CA 92553
Operational Status:	Active
Operator:	Agua Mansa MRF, LLC
Operator Phone:	9517860655
Operator Address:	Not reported
Operator Address2:	9890 Cherry Avenue
Operator City,St,Zip:	Fontana, CA 92335
Permit Date:	05/15/2012
Permit Status:	Permitted
Permitted Acreage:	Not reported
Activity:	Composting Facility (Mixed)
Regulation Status:	Permitted
Landuse Name:	Suburban,Open Space - Nonirrigated,Industrial
GIS Source:	Map
Category:	Composting
Unit Number:	08
Inspection Frequency:	Monthly
Accepted Waste:	Not reported
Closure Date:	Not reported

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Closure Type: Not reported
Disposal Acreage: Not reported
SWIS Num: 33-AA-0258
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: Not reported
Actual Throughput with Units: Not reported
Permitted Capacity with Units: Not reported
Remaining Capacity: Not reported
Remaining Capacity with Units: Not reported
Lat/Long: 34.02106 / -117.3853

Region: STATE
Facility ID: 33-AA-0258
Lat/Long: 34.02106 / -117.3853
Owner Name: Riverside County Dept. of Waste Resource
Owner Telephone: 9514863200
Owner Address: Hans W. Kernkamp
Owner Address2: 14310 Frederick St.
Owner City,St,Zip: Moreno Valley, CA 92553
Operational Status: Active
Operator: Agua Mansa MRF, LLC
Operator Phone: 9517860655
Operator Address: Not reported
Operator Address2: 9890 Cherry Avenue
Operator City,St,Zip: Fontana, CA 92335
Permit Date: 05/15/2012
Permit Status: Permitted
Permitted Acreage: $22.00
Activity: Large Volume Transfer/Proc Facility
Regulation Status: Permitted
Landuse Name: Suburban,Open Space - Nonirrigated,Industrial
GIS Source: Map
Category: Transfer/Processing
Unit Number: 01
Inspection Frequency: Monthly
Accepted Waste: Construction/demolition,Green Materials,Inert,Metals,Mixed municipal,Wood waste
Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported
SWIS Num: 33-AA-0258
Waste Discharge Requirement Num: Not reported
Program Type: MRF
Permitted Throughput with Units: 4000
Actual Throughput with Units: Tons/day
Permitted Capacity with Units: 4000
Remaining Capacity: Not reported
Remaining Capacity with Units: Tons/day
Lat/Long: 34.02106 / -117.3853

Region: STATE
Facility ID: 33-AA-0258
Lat/Long: 34.02106 / -117.3853
Owner Name: Riverside County Dept. of Waste Resource
Owner Telephone: 9514863200
Owner Address: Hans W. Kernkamp

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Owner Address2:	14310 Frederick St.
Owner City,St,Zip:	Moreno Valley, CA 92553
Operational Status:	Active
Operator:	Agua Mansa MRF, LLC
Operator Phone:	9517860655
Operator Address:	Not reported
Operator Address2:	9890 Cherry Avenue
Operator City,St,Zip:	Fontana, CA 92335
Permit Date:	05/15/2012
Permit Status:	Permitted
Permitted Acreage:	Not reported
Activity:	Small Vol CDI Debris Proc. Operation
Regulation Status:	Permitted
Landuse Name:	Suburban,Open Space - Nonirrigated,Industrial
GIS Source:	Map
Category:	Transfer/Processing
Unit Number:	04
Inspection Frequency:	Monthly
Accepted Waste:	Construction/demolition
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	Not reported
SWIS Num:	33-AA-0258
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	Not reported
Actual Throughput with Units:	Not reported
Permitted Capacity with Units:	Not reported
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Not reported
Lat/Long:	34.02106 / -117.3853

Region:	STATE
Facility ID:	33-AA-0319
Lat/Long:	34.02261 / -117.38004
Owner Name:	Riverside County Waste Management Depart
Owner Telephone:	9514863200
Owner Address:	Not reported
Owner Address2:	14310 Frederick Street
Owner City,St,Zip:	Moreno Valley, CA 92553
Operational Status:	Active
Operator:	Agua Mansa MRF, LLC
Operator Phone:	9517860655
Operator Address:	Not reported
Operator Address2:	9890 Cherry Avenue
Operator City,St,Zip:	Fontana, CA 92335
Permit Date:	03/08/2017
Permit Status:	Notification
Permitted Acreage:	$1.00
Activity:	Composting Operation (Research)
Regulation Status:	Notification
Landuse Name:	Residential,Golf Course,Commercial
GIS Source:	Map
Category:	Composting
Unit Number:	02
Inspection Frequency:	Quarterly
Accepted Waste:	Food Wastes,Green Materials

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Closure Date: Not reported
Closure Type: Not reported
Disposal Acreage: Not reported
SWIS Num: 33-AA-0319
Waste Discharge Requirement Num: Not reported
Program Type: Not reported
Permitted Throughput with Units: 5000
Actual Throughput with Units: Cu Yards/day
Permitted Capacity with Units: 2000
Remaining Capacity: Not reported
Remaining Capacity with Units: Tons/year
Lat/Long: 34.02261 / -117.38004

SWRCY:
Reg Id: 23974
Cert Id: RC7808
Mailing Address: 1830 Agua Mansa Rd
Mailing City: Riverside
Mailing State: CA
Mailing Zip Code: 92509
Website: Not reported
Email: debbie@burrtec.com
Phone Number: (951) 786-0544
Grand Father: N
Rural: N
Operation Begin Date: 01/16/1998
Aluminium: Y
Glass: Y
Plastic: Y
Bimetal: Y
Agency: N/A
Monday Hours Of Operation: 8:00 am - 4:00 pm
Tuesday Hours Of Operation: 8:00 am - 4:00 pm
Wednesday Hours Of Operation: 8:00 am - 4:00 pm
Thursday Hours Of Operation: 8:00 am - 4:00 pm
Friday Hours Of Operation: 8:00 am - 4:00 pm
Saturday Hours Of Operation: 8:00 am - 2:00 pm
Sunday Hours Of Operation: 8:00 am - 2:00 pm
Organization ID: 19249
Organization Name: Burrtec Waste Industries Inc

NPDES:
Npdes Number: CAS000001
Facility Status: Active
Agency Id: 0
Region: 8
Regulatory Measure Id: 359176
Order No: 97-03-DWQ
Regulatory Measure Type: Enrollee
Place Id: Not reported
WDID: 8 33I021996
Program Type: Industrial
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: 01/14/2009
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

Discharge Name:	Agua Mansa MRF LLC
Discharge Address:	9890 Cherry Avenue
Discharge City:	Fontana
Discharge State:	California
Discharge Zip:	92335
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	359176
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I021996
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	12/30/2008
PROCESSED DATE:	01/14/2009
STATUS CODE NAME:	Active
STATUS DATE:	01/14/2009
PLACE SIZE:	22.03
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Nick Burciaga
FACILITY CONTACT TITLE:	Division Manager
FACILITY CONTACT PHONE:	951-786-0655
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	nburciaga@burrtec.com
OPERATOR NAME:	Agua Mansa MRF LLC
OPERATOR ADDRESS:	9890 Cherry Avenue
OPERATOR CITY:	Fontana
OPERATOR STATE:	California
OPERATOR ZIP:	92335
OPERATOR CONTACT NAME:	Gary Koontz
OPERATOR CONTACT TITLE:	Facility Project Manager
OPERATOR CONTACT PHONE:	909-429-4200
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	gkoontz@burrtec.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	909-714-8158
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported

RA NELSON MRF TRANSFER STATION (Continued) **S108199310**

CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Gary Koontz
CERTIFIER TITLE:	Facility Project Manager
CERTIFICATION DATE:	04-MAR-15
PRIMARY SIC:	4212-Local Trucking Without Storage
SECONDARY SIC:	Not reported
TERTIARY SIC:	2875-Fertilizers, Mixing Only

PROC:

Reg Id:	26414
Cert Id:	PR0399
Organization Id:	26414
Organization Name:	Agua Mansa MRF LLC
Mailing Address:	1830 Agua Mansa Rd
Mailing City:	Riverside
Mailing State:	CA
Mailing Zip Code:	92509
Website:	Not reported
Email:	Not reported
Phone Number:	(951) 786-0544
Grand Father:	N/A
Rural:	N/A
Operation Begin Date:	03/01/2005
Aluminium:	Not reported
Glass:	Not reported
Plastic:	Not reported
Bimetal:	Not reported
Agency:	N/A
Monday Hours Of Operation:	8:00 am - 4:00 pm
Tuesday Hours Of Operation:	8:00 am - 4:00 pm
Wednesday Hours Of Operation:	8:00 am - 4:00 pm
Thursday Hours Of Operation:	8:00 am - 4:00 pm
Friday Hours Of Operation:	8:00 am - 4:00 pm
Saturday Hours Of Operation:	8:00 am - 2:00 pm
Sunday Hours Of Operation:	8:00 am - 2:00 pm

B24 **BURRTEC WASTE INDUSTRIES,AGUA MANSA** **AST** **A100417904**
SSW **1850 AGUA MANSA RD** **N/A**
< 1/8 **JURUPA VALLEY, CA 92509**
0.058 mi.
306 ft. **Site 6 of 8 in cluster B**

Relative: **Lower**

Actual: **884 ft.**

AST:

Certified Unified Program Agencies:	Not reported
Owner:	Burrtec Waste Industries, Inc
Total Gallons:	Not reported
CERSID:	10320790
Facility ID:	Not reported
Business Name:	Burrtec Waste Industries, Inc.
Phone:	(951) 786-0544
Fax:	(951) 786-0682
Mailing Address:	9890 Cherry Ave
Mailing Address City:	Fontana
Mailing Address State:	CA
Mailing Address Zip Code:	92335
Operator Name:	Burrtec Waste Industries, Inc.
Operator Phone:	(951) 786-9660
Owner Phone:	(909) 429-4200
Owner Mail Address:	9890 Cherry Ave
Owner State:	CA
Owner Zip Code:	92335
Owner Country:	United States
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	CAL000162179

B25 **BURRTEC WASTE INDUSTRIES INC** **RCRA-SQG** **1001967639**
SSW **1850 ASUA MANSA RD** **FINDS** **CAR000071431**
< 1/8 **RIVERSIDE, CA 92509** **ECHO**
0.058 mi. **HAZNET**
306 ft. **Site 7 of 8 in cluster B**

Relative: **Lower**

Actual: **884 ft.**

RCRA-SQG:

Date form received by agency:	04/20/2000
Facility name:	BURRTEC WASTE INDUSTRIES INC
Facility address:	1850 ASUA MANSA RD RIVERSIDE, CA 92509
EPA ID:	CAR000071431
Contact:	BILL EDEN
Contact address:	1850 ASUA MANSA RD RIVERSIDE, CA 92509
Contact country:	US
Contact telephone:	909-786-0639
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

BURRTEC WASTE INDUSTRIES INC (Continued) **1001967639**

Owner/Operator Summary:
Owner/operator name: EDCO DISPOSAL
Owner/operator address: 1850 ASUA MANSA RD
RIVERSIDE, CA 92509
Owner/operator country: Not reported
Owner/operator telephone: 909-786-0639
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

FINDS:

Registry ID: 110002935904

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

BURRTEC WASTE INDUSTRIES INC (Continued) **1001967639**

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid:	1001967639
Registry ID:	110002935904
DFR URL:	http://echo.epa.gov/detailed-facility-report?fid=110002935904

HAZNET:

envid:	1001967639
Year:	2016
GEPAID:	CAR000071431
Contact:	DEBBIE HANSEN
Telephone:	9094294200
Mailing Name:	Not reported
Mailing Address:	9890 CHERRY AVE
Mailing City,St,Zip:	FONTANA, CA 923355359
Gen County:	Riverside
TSD EPA ID:	CAT000613927
TSD County:	San Bernardino
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.4536
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside

envid:	1001967639
Year:	2016
GEPAID:	CAR000071431
Contact:	DEBBIE HANSEN
Telephone:	9094294200
Mailing Name:	Not reported
Mailing Address:	9890 CHERRY AVE
Mailing City,St,Zip:	FONTANA, CA 923355359
Gen County:	Riverside
TSD EPA ID:	CAL000330453
TSD County:	Los Angeles
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	1.45
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside

envid:	1001967639
Year:	2015
GEPAID:	CAR000071431
Contact:	DEBBIE HANSEN
Telephone:	9094294200
Mailing Name:	Not reported

BURRTEC WASTE INDUSTRIES INC (Continued) **1001967639**

Mailing Address: 9890 CHERRY AVE
Mailing City,St,Zip: FONTANA, CA 923350000
Gen County: Riverside
TSD EPA ID: CAT000613927
TSD County: San Bernardino
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.3528
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1001967639
Year: 2015
GEPAID: CAR000071431
Contact: DEBBIE HANSEN
Telephone: 9094294200
Mailing Name: Not reported
Mailing Address: 9890 CHERRY AVE
Mailing City,St,Zip: FONTANA, CA 923350000
Gen County: Riverside
TSD EPA ID: AZD081705402
TSD County: 99
Waste Category: Other inorganic solid waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.7375
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1001967639
Year: 2015
GEPAID: CAR000071431
Contact: DEBBIE HANSEN
Telephone: 9094294200
Mailing Name: Not reported
Mailing Address: 9890 CHERRY AVE
Mailing City,St,Zip: FONTANA, CA 923350000
Gen County: Riverside
TSD EPA ID: CAD008302903
TSD County: Los Angeles
Waste Category: Other inorganic solid waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.375
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

Click this hyperlink while viewing on your computer to access
65 additional CA_HAZNET: record(s) in the EDR Site Report.

B26 **BURRTEC WASTE INDUSTRIES-AGUA MANSA** **UST** **U003948804**
SSW **1850 AGUA MANSA RD** **N/A**
< 1/8 **JURUPA VALLEY, CA 92509**
0.058 mi.
306 ft. **Site 8 of 8 in cluster B**

Relative:
Lower

Actual:
884 ft.

UST:
Facility ID: 123
Permitting Agency: RIVERSIDE COUNTY
Latitude: 34.02065
Longitude: -117.3858

Facility ID: Not reported
Permitting Agency: Riverside County Department of Environmental Health
Latitude: 34.02221
Longitude: -117.38325

RIVERSIDE CO. UST:
Region: RIVERSIDE
Total Tanks: 1

C27 **SKANSKA** **UST** **U003886167**
SSW **1995 AGUA MANSA RD** **N/A**
1/8-1/4 **JURUPA VALLEY, CA 92509**
0.131 mi.
692 ft. **Site 1 of 3 in cluster C**

Relative:
Lower

Actual:
869 ft.

UST:
Facility ID: 290
Permitting Agency: RIVERSIDE COUNTY
Latitude: 34.022369
Longitude: -117.38496

Facility ID: Not reported
Permitting Agency: Riverside County Department of Environmental Health
Latitude: 34.02082
Longitude: -117.38737

RIVERSIDE CO. UST:
Region: RIVERSIDE
Total Tanks: 1

C28 **E L YEAGER CONST CO INC** **SWEEPS UST** **S101590024**
SSW **1995 AGUA MANSA RD** **CA FID UST** **N/A**
1/8-1/4 **RIVERSIDE, CA 92502** **EMI**
0.131 mi. **NPDES**
692 ft. **Site 2 of 3 in cluster C** **WDS**

Relative:
Lower

Actual:
869 ft.

SWEEPS UST:
Status: Active
Comp Number: 83
Number: 1
Board Of Equalization: 44-017848
Referral Date: 10-29-92
Action Date: 10-29-92
Created Date: 12-14-88
Owner Tank Id: 001498

E L YEAGER CONST CO INC (Continued) **S101590024**

SWRCB Tank Id: 33-000-000083-000001
Tank Status: A
Capacity: 12000
Active Date: 10-29-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 3

Status: Active
Comp Number: 83
Number: 1
Board Of Equalization: 44-017848
Referral Date: 10-29-92
Action Date: 10-29-92
Created Date: 12-14-88
Owner Tank Id: 001498
SWRCB Tank Id: 33-000-000083-000002
Tank Status: A
Capacity: 500
Active Date: 10-29-92
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

Status: Active
Comp Number: 83
Number: 1
Board Of Equalization: 44-017848
Referral Date: 10-29-92
Action Date: 10-29-92
Created Date: 12-14-88
Owner Tank Id: 001498
SWRCB Tank Id: 33-000-000083-000003
Tank Status: A
Capacity: 10000
Active Date: 10-29-92
Tank Use: PETROLEUM
STG: W
Content: PETROLEUM WA
Number Of Tanks: Not reported

CA FID UST:
Facility ID: 33002486
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7146845360
Mail To: Not reported
Mailing Address: 1995 AGUA MANSA RD
Mailing Address 2: Not reported
Mailing City,St,Zip: RIVERSIDE 92502
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported

E L YEAGER CONST CO INC (Continued) **S101590024**

NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

EMI:

Year:	1990
County Code:	33
Air Basin:	SC
Facility ID:	14479
Air District Name:	SC
SIC Code:	2951
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1993
County Code:	33
Air Basin:	SC
Facility ID:	14479
Air District Name:	SC
SIC Code:	2951
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Year:	1995
County Code:	33
Air Basin:	SC
Facility ID:	14479
Air District Name:	SC
SIC Code:	2951
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

E L YEAGER CONST CO INC (Continued) **S101590024**

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	210773
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I010150
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	05/09/2008
PROCESSED DATE:	06/18/1993
STATUS CODE NAME:	Active
STATUS DATE:	06/18/1993
PLACE SIZE:	30
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Clark Peterson
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	951-684-5360
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	clark.peterson@skanska.com
OPERATOR NAME:	Skanska USA Civil West CA
OPERATOR ADDRESS:	1995 Agua Mansa Road
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Clark Peterson
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-684-5360
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	clark.peterson@skanska.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	970-759-6676
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported

E L YEAGER CONST CO INC (Continued) **S101590024**

CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Clark Peterson
CERTIFIER TITLE:	Vice President Environmental Health and Safety
CERTIFICATION DATE:	28-JUL-15
PRIMARY SIC:	4213-Trucking, Except Local
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	210773
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I010150
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	06/18/1993
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Skanska USA Civil West CA
Discharge Address:	1995 Agua Mansa Road
Discharge City:	Riverside
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported

E L YEAGER CONST CO INC (Continued) **S101590024**

OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

WDS:

Facility ID:	Santa Ana River 33I010150
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	E. L. YEAGER CONSTRUCTION CO
Agency Address:	PO BOX 87
Agency City,St,Zip:	RIVERSIDE 92502

E L YEAGER CONST CO INC (Continued) **S101590024**

Agency Contact:	Not reported
Agency Telephone:	Not reported
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

C29 **SKANSKA-MAIN YARD** **AST** **S113087689**
SSW **1995 AGUA MANSA RD** **N/A**
1/8-1/4 **RIVERSIDE, CA 92509**
0.131 mi.
692 ft. **Site 3 of 3 in cluster C**

Relative: **Lower**

Actual: **869 ft.**

AST:

Certified Unified Program Agencies:	Not reported
Owner:	SKANSKA USA CIVIL WEST CA DIST INC
Total Gallons:	Not reported
CERSID:	10152101
Facility ID:	Not reported
Business Name:	Skanska USA Civil West
Phone:	951 684 5360
Fax:	Not reported
Mailing Address:	1995 AGUA MANSA RD
Mailing Address City:	RIVERSIDE
Mailing Address State:	CA
Mailing Address Zip Code:	92509
Operator Name:	Skanska
Operator Phone:	951 684 5360
Owner Phone:	9516845360
Owner Mail Address:	1995 Agua Mansa Road
Owner State:	CA
Owner Zip Code:	92509
Owner Country:	United States
Property Owner Name:	Skanska
Property Owner Phone:	951 684 5360
Property Owner Mailing Address:	1995 Agua Mansa Road

SKANSKA-MAIN YARD (Continued) **S113087689**

Property Owner City: Riverside
Property Owner Stat : CA
Property Owner Zip Code: 92509
Property Owner Country: United States
EPAID: CAL000163718

D30 **RYDER TRUCK RENTAL** **RCRA-SQG** **1000211843**
SW **5880 20TH ST** **SLIC** **CAD981379878**
1/8-1/4 **RIVERSIDE, CA 92509** **SWEEPS UST**
0.167 mi. **HIST UST**
884 ft. **Site 1 of 4 in cluster D** **CA FID UST**
FINDS
Relative: Lower **ECHO**

Actual: 871 ft.

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: RYDER TRUCK RENTAL
Facility address: 5880 20TH ST
RIVERSIDE, CA 92519
EPA ID: CAD981379878
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: US
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Land type: Facility is not located on Indian land. Additional information is not known.
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: RYDER TRUCK RENTAL
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: 415-555-1212
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported

RYDER TRUCK RENTAL (Continued) **1000211843**

Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/04/1986
Site name: RYDER TRUCK RENTAL
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 10/20/2006
Date achieved compliance: 10/20/2006
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/20/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 10/20/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 10/20/2006
Evaluation lead agency: State

Evaluation date: 06/02/2004
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

RYDER TRUCK RENTAL (Continued) **1000211843**

Evaluation date: 09/28/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

SLIC:
Region: STATE
Facility Status: **Completed - Case Closed**
Status Date: 11/21/1995
Global Id: SLT8R1734113
Lead Agency: SANTA ANA RWQCB (REGION 8)
Lead Agency Case Number: Not reported
Latitude: 34.019994613531
Longitude: -117.390503883362
Case Type: Cleanup Program Site
Case Worker: Not reported
Local Agency: Not reported
RB Case Number: SLT8R173
File Location: Regional Board
Potential Media Affected: Soil
Potential Contaminants of Concern: Other Petroleum
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SWEEPS UST:
Status: Active
Comp Number: 8135
Number: 1
Board Of Equalization: 44-000631
Referral Date: 11-18-92
Action Date: 11-18-92
Created Date: 02-29-88
Owner Tank Id: 000927
SWRCB Tank Id: 33-000-008135-000001
Tank Status: A
Capacity: 4000
Active Date: 11-18-92
Tank Use: PETROLEUM
STG: P
Content: MOTOR OIL
Number Of Tanks: 5

Status: Active
Comp Number: 8135
Number: 1
Board Of Equalization: 44-000631
Referral Date: 11-18-92
Action Date: 11-18-92
Created Date: 02-29-88
Owner Tank Id: 000927
SWRCB Tank Id: 33-000-008135-000002
Tank Status: A
Capacity: 12000
Active Date: 11-18-92
Tank Use: M.V. FUEL

RYDER TRUCK RENTAL (Continued) **1000211843**

STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 8135
Number: 1
Board Of Equalization: 44-000631
Referral Date: 11-18-92
Action Date: 11-18-92
Created Date: 02-29-88
Owner Tank Id: 000927
SWRCB Tank Id: 33-000-008135-000003
Tank Status: A
Capacity: 12000
Active Date: 11-18-92
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 8135
Number: 1
Board Of Equalization: 44-000631
Referral Date: 11-18-92
Action Date: 11-18-92
Created Date: 02-29-88
Owner Tank Id: 000927
SWRCB Tank Id: 33-000-008135-000004
Tank Status: A
Capacity: 12000
Active Date: 11-18-92
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: Not reported

Status: Active
Comp Number: 8135
Number: 1
Board Of Equalization: 44-000631
Referral Date: 11-18-92
Action Date: 11-18-92
Created Date: 02-29-88
Owner Tank Id: 000927
SWRCB Tank Id: 33-000-008135-000005
Tank Status: A
Capacity: 1500
Active Date: 11-18-92
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: Not reported

HIST UST:
File Number: 0001F942

RYDER TRUCK RENTAL (Continued) **1000211843**

URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F942.pdf
Region:	STATE
Facility ID:	00000008135
Facility Type:	Other
Other Type:	REPAIR & FUELING
Contact Name:	FRED OLIVARRIA
Telephone:	7147879710
Owner Name:	RYDER TRUCK RENTAL INC.
Owner Address:	3600 N.W. 82ND AVE.
Owner City,St,Zip:	MIAMI, FL 33166
Total Tanks:	0007
Tank Num:	001
Container Num:	1
Year Installed:	1973
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	.202
Leak Detection:	Visual, Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1973
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	.384
Leak Detection:	Visual, Stock Inventor
Tank Num:	003
Container Num:	3
Year Installed:	1973
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	.384
Leak Detection:	Stock Inventor
Tank Num:	004
Container Num:	4
Year Installed:	1973
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	.384
Leak Detection:	Stock Inventor
Tank Num:	005
Container Num:	5
Year Installed:	1973
Tank Capacity:	00001500
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	.202
Leak Detection:	Visual

RYDER TRUCK RENTAL (Continued) **1000211843**

Tank Num:	006
Container Num:	6
Year Installed:	1973
Tank Capacity:	00000000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Visual

Tank Num:	007
Container Num:	7
Year Installed:	1973
Tank Capacity:	00000000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Visual

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID:	33002250
Regulated By:	UTNKA
Regulated ID:	00008135
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7147879712
Mail To:	Not reported
Mailing Address:	5880 20TH ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	RIVERSIDE 92519
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

FINDS:

Registry ID: 110002687263

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

RYDER TRUCK RENTAL (Continued) **1000211843**

STATE MASTER

Registry ID: 110055696821

Environmental Interest/Information System
STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1000211843
Registry ID: 110002687263
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002687263

D31 **RYDER TRUCK RENTALS, INC.** **SLIC** **S101854140**
SW **5880 20TH STREET** **N/A**
1/8-1/4 **RIVERSIDE, CA**
0.167 mi.
884 ft. **Site 2 of 4 in cluster D**

Relative: **Lower**
Actual: **871 ft.**

SLIC REG 8:
Type: Soil
Facility Status: Closed
Staff: XXX
Substance: TPH
Lead Agency: Regional Board
Location Code: Not reported
Thomas Bros Code: Not reported

D32 **RYDER TRANSPORTATION SERVICES #Q563** **AST** **A100338051**
SW **5880 20TH ST.** **N/A**
1/8-1/4 **RIVERSIDE, CA**
0.167 mi.
884 ft. **Site 3 of 4 in cluster D**

Relative: **Lower**
Actual: **871 ft.**

AST:
Certified Unified Program Agencies: Riverside
Owner: Ryder Transportation Services #Q563
Total Gallons: 2,150
CERSID: Not reported
Facility ID: Not reported
Business Name: Not reported
Phone: Not reported
Fax: Not reported
Mailing Address: Not reported
Mailing Address City: Not reported
Mailing Address State: Not reported
Mailing Address Zip Code: Not reported
Operator Name: Not reported
Operator Phone: Not reported
Owner Phone: Not reported
Owner Mail Address: Not reported
Owner State: Not reported
Owner Zip Code: Not reported

RYDER TRANSPORTATION SERVICES #Q563 (Continued) **A100338051**

Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

D33 **RYDER TRANSPORTATION RENTAL 0563** **UST** **U003949046**
SW **5880 20TH ST** **N/A**
1/8-1/4 **JURUPA VALLEY, CA 92509**
0.167 mi.
884 ft. **Site 4 of 4 in cluster D**

Relative:
Lower

Actual:
871 ft.

UST:

Facility ID:	FA0015453
Permitting Agency:	Riverside County Department of Environmental Health
Latitude:	34.02025
Longitude:	-117.39043
Facility ID:	660
Permitting Agency:	RIVERSIDE COUNTY
Latitude:	34.0209815
Longitude:	-117.389097

RIVERSIDE CO. UST:

Region:	RIVERSIDE
Total Tanks:	1

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34 **POPELINO'S RECYCLING FACILITY** **LDS** **S112833952**
ENE **1880 BROWN AVENUE** **San Bern. Co. Permit** **N/A**
1/8-1/4 **COLTON, CA 92324**
0.185 mi.
977 ft.

Relative:
Lower

Actual:
914 ft.

LDS:

Global Id:	T10000009583
Latitude:	34.02634
Longitude:	-117.3765
Case Type:	Land Disposal Site
Status:	Open - Active
Status Date:	11/04/2016
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Caseworker:	JIS
Local Agency:	Not reported
RB Case Number:	8 362982001
LOC Case Number:	Not reported
File Location:	All Files are on GeoTracker or in the Local Agency Database
Potential Media Affect:	Not reported
EDR Link ID:	T10000009583
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

POPELINO'S RECYCLING FACILITY (Continued) **S112833952**

Click here to access the California GeoTracker records for this facility:

San Bern. Co. Permit:
Region: SAN BERNARDINO
Facility ID: FA0014913
Owner: BARRAGAN, JOSE
Permit Number: PT0025964
Permit Category: SMALL QUANTITY GENERATOR
Facility Status: ACTIVE
Expiration Date: 02/28/2018

Region: SAN BERNARDINO
Facility ID: FA0014913
Owner: BARRAGAN, JOSE
Permit Number: PT0025966
Permit Category: APSA 1,320-10,000 GAL FAC CAPACITY
Facility Status: ACTIVE
Expiration Date: 02/28/2018

Region: SAN BERNARDINO
Facility ID: FA0014913
Owner: BARRAGAN, JOSE
Permit Number: PT0025965
Permit Category: HAZARDOUS MATERIALS 4-10 CHEMICALS
Facility Status: ACTIVE
Expiration Date: 02/28/2018

35
NE
1/8-1/4
0.220 mi.
1163 ft.

CLUB CAR LLC
1203 HALL AVE
JURUPA VALLEY, CA 92509

RCRA-SQG **1018155198**
FINDS **CAR000256263**
ECHO

Relative:
Lower

Actual:
940 ft.

RCRA-SQG:
Date form received by agency: 09/06/2017
Facility name: CLUB CAR LLC
Facility address: 1203 HALL AVE
JURUPA VALLEY, CA 92509
EPA ID: CAR000256263
Mailing address: HALL AVE
JURUPA VALLEY, CA 92509
Contact: JEFFREY LEMELIN
Contact address: HALL AVE
JURUPA VALLEY, CA 92509
Contact country: US
Contact telephone: 951-403-9876
Contact email: JEFF.LEMELIN@IRCO.COM
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

CLUB CAR LLC (Continued) **1018155198**

Owner/Operator Summary:
Owner/operator name: CLUB CAR LLC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 09/21/2015
Owner/Op end date: Not reported

Owner/operator name: AM PROPERTY INVESTORS
Owner/operator address: SPOLETO DR
PACIFIC PALISADES, CA 90272
Owner/operator country: US
Owner/operator telephone: 310-454-8190
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 12/27/2007
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 134
. Waste name: Aqueous solution with <10% total organic residues

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 221
. Waste name: Waste oil and mixed oil

. Waste code: 352
. Waste name: Other organic solids

CLUB CAR LLC (Continued) **1018155198**

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Historical Generators:
Date form received by agency: 09/21/2015
Site name: CLUB CAR LLC
Classification: Small Quantity Generator

. Waste code: 134
. Waste name: Aqueous solution with <10% total organic residues

. Waste code: 213
. Waste name: Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)

. Waste code: 221
. Waste name: Waste oil and mixed oil

. Waste code: 352
. Waste name: Other organic solids

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

FINDS:

Registry ID: 110066953416

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1018155198
Registry ID: 110066953416
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110066953416

36
South
1/8-1/4
0.230 mi.
1215 ft.

NATIONSRENT, INC.
2215 VIA CERRO
RIVERSIDE, CA 92509

UST **U003799344**
N/A

Relative:
Lower

Actual:
900 ft.

UST:
Facility ID: 540
Permitting Agency: RIVERSIDE COUNTY
Latitude: 34.0193734
Longitude: -117.3814159

E37
SW
1/8-1/4
0.244 mi.
1286 ft.

Site 1 of 2 in cluster E

FLYERS #469
5840 20TH STREET
RIVERSIDE, CA 92509

RCRA-CESQG **1019322607**
CAL000403740

Relative:
Lower

Actual:
873 ft.

RCRA-CESQG:
Date form received by agency: 09/21/2016
Facility name: FLYERS #469
Facility address: 5840 20TH STREET
RIVERSIDE, CA 92509
EPA ID: CAL000403740
Mailing address: LINDBERGH STREET
AUBURN, CA 95602
Contact: VANESSA ESTRADA
Contact address: LINDBERGH STREET
AUBURN, CA 95602
Contact country: US
Contact telephone: 530-885-0401
Telephone ext.: 2102
Contact email: ENVIRONMENTAL@4FLYERS.COM
EPA Region: 09
Classification: Conditionally Exempt Small Quantity Generator
Description: Handler: generates 100 kg or less of hazardous waste per calendar month, and accumulates 1000 kg or less of hazardous waste at any time; or generates 1 kg or less of acutely hazardous waste per calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates at any time: 1 kg or less of acutely hazardous waste; or 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste

Owner/Operator Summary:
Owner/operator name: FLYERS ENERGY LLC
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported

FLYERS #469 (Continued) **1019322607**

Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 01/05/2015
Owner/Op end date: Not reported

Owner/operator name: MPRM PROPERTIES, LLC
Owner/operator address: CALLE SOLEJAR
REDLANDS, CA 92373
Owner/operator country: US
Owner/operator telephone: 951-315-2814
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 01/05/2015
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 134
. Waste name: Aqueous solution with <10% total organic residues

. Waste code: D001
. Waste name: IGNITABLE WASTE

Biennial Reports:

Last Biennial Reporting Year: 2017

Annual Waste Handled:
Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 3419.5

FLYERS #469 (Continued) **1019322607**

Violation Status: No violations found

E38 **FLYERS #469** **UST** **U004250221**
SW **5840 20TH ST** **N/A**
1/8-1/4 **RIVERSIDE, CA 92509**
0.244 mi.
1286 ft. **Site 2 of 2 in cluster E**

Relative: **Lower**

Actual: **873 ft.**

UST:
Facility ID: Not reported
Permitting Agency: Riverside County Department of Environmental Health
Latitude: 34.01984
Longitude: -117.38988

RIVERSIDE CO. UST:
Region: RIVERSIDE
Total Tanks: 3

F39 **CAN FIBRE** **RCRA-SQG** **1004676468**
ESE **1755 BROWN AVENUE** **FINDS** **CAR000085670**
1/8-1/4 **RIVERSIDE, CA 92509** **ECHO**
0.244 mi. **HAZNET**
1288 ft. **Site 1 of 3 in cluster F** **NPDES**

Relative: **Lower**

Actual: **898 ft.**

RCRA-SQG:
Date form received by agency: 01/17/2001
Facility name: CAN FIBRE
Facility address: 1755 BROWN AVE
RIVERSIDE, CA 92507
EPA ID: CAR000085670
Contact: DEBRA DICKERSON
Contact address: 1755 BROWN AVE
RIVERSIDE, CA 92507
Contact country: US
Contact telephone: 909-682-8500
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: CAN FIBRE
Owner/operator address: 1755 BROWN AVE
RIVERSIDE, CA 92507
Owner/operator country: Not reported
Owner/operator telephone: 909-682-8500
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported

CAN FIBRE (Continued) **1004676468**

Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

FINDS:

Registry ID: 110012229739

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:
Envid: 1004676468
Registry ID: 110012229739
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110012229739

HAZNET:
envid: 1004676468
Year: 2001
GEPAID: CAR000085670
Contact: --
Telephone: 9096828500
Mailing Name: Not reported
Mailing Address: 1755 BROWN AVE

CAN FIBRE (Continued) **1004676468**

Mailing City,St,Zip: RIVERSIDE, CA 925070000
Gen County: Not reported
TSD EPA ID: CAT000613927
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.67
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1004676468
Year: 2001
GEPAID: CAR000085670
Contact: --
Telephone: 9096828500
Mailing Name: Not reported
Mailing Address: 1755 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925070000
Gen County: Not reported
TSD EPA ID: CAT000613893
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 0.12
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

NPDES:
Npdes Number: Not reported
Facility Status: Not reported
Agency Id: Not reported
Region: 8
Regulatory Measure Id: 442414
Order No: Not reported
Regulatory Measure Type: Region 8 - Scrap Metal Permit
Place Id: Not reported
WDID: 8 33MR000049
Program Type: Not reported
Adoption Date Of Regulatory Measure: Not reported
Effective Date Of Regulatory Measure: Not reported
Expiration Date Of Regulatory Measure: Not reported
Termination Date Of Regulatory Measure: Not reported
Discharge Name: Not reported
Discharge Address: Not reported
Discharge City: Not reported
Discharge State: Not reported
Discharge Zip: Not reported
RECEIVED DATE: 11/04/2013
PROCESSED DATE: 11/07/2013
STATUS CODE NAME: Active
STATUS DATE: 11/07/2013
PLACE SIZE: 21.5
PLACE SIZE UNIT: Acres
FACILITY CONTACT NAME: Brian Chen
FACILITY CONTACT TITLE: General Manager

CAN FIBRE (Continued) **1004676468**

FACILITY CONTACT PHONE:	909-267-8889
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	brian@inlandcompressing.com
OPERATOR NAME:	Inland Compressing Company
OPERATOR ADDRESS:	1755 Brown Ave
OPERATOR CITY:	Jurupa Valley
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Brian Chen
OPERATOR CONTACT TITLE:	General Manager
OPERATOR CONTACT PHONE:	909-267-8889
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	brian@inlandcompressing.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	BRIAN CHEN
CERTIFIER TITLE:	GENERAL MANAGER
CERTIFICATION DATE:	04-NOV-13
PRIMARY SIC:	5093-Scrap and Waste Materials
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	442414
Order No:	Not reported
Regulatory Measure Type:	Enrollee
Place Id:	Not reported

CAN FIBRE (Continued) **1004676468**

WDID:	8 33MR000049
Program Type:	Region 8 - Scrap Metal Permit
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	11/07/2013
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Inland Compressing Company
Discharge Address:	1755 Brown Ave
Discharge City:	Jurupa Valley
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported

CAN FIBRE (Continued) **1004676468**

CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

F40 **SOUTHLAND ENGINEERING** **AST** **A100337381**
ESE **1755 BROWN ST.** **N/A**
1/8-1/4 **RIVERSIDE, CA**
0.244 mi.
1288 ft. **Site 2 of 3 in cluster F**

Relative: **Lower**
Actual: **898 ft.**

AST:

Certified Unified Program Agencies:	Riverside
Owner:	Southland Engineering
Total Gallons:	4,000
CERSID:	Not reported
Facility ID:	Not reported
Business Name:	Not reported
Phone:	Not reported
Fax:	Not reported
Mailing Address:	Not reported
Mailing Address City:	Not reported
Mailing Address State:	Not reported
Mailing Address Zip Code:	Not reported
Operator Name:	Not reported
Operator Phone:	Not reported
Owner Phone:	Not reported
Owner Mail Address:	Not reported
Owner State:	Not reported
Owner Zip Code:	Not reported
Owner Country:	Not reported
Property Owner Name:	Not reported
Property Owner Phone:	Not reported
Property Owner Mailing Address:	Not reported
Property Owner City:	Not reported
Property Owner Stat :	Not reported
Property Owner Zip Code:	Not reported
Property Owner Country:	Not reported
EPAID:	Not reported

F41 **RIOS RECYCLING** **SWF/LF** **S104579463**
ESE **1755 BROWN AVE.** **NPDES** **N/A**
1/8-1/4 **RIVERSIDE, CA 92509** **WDS**
0.244 mi.
1288 ft. **Site 3 of 3 in cluster F**

Relative: **Lower**
Actual: **898 ft.**

LOS ANGELES CO. LF:

Site ID:	2748
Alt. Address:	N/A
Site Contact:	Not reported

RIOS RECYCLING (Continued) **S104579463**

Site Contact Phone:	(951) 786-7781
Site Email:	Not reported
Site Website:	N/A
Site Type:	Out-of-County Facility
Site SWIS Number:	33-AA-0316
Beginning Operation Date:	N/A
Ending Operation Date:	N/A
Local Enforcement Agency:	County of Riverside Community Health Agency
Maximun Depth Fill(Ft):	N/A
Permitted Capacity:	199
Present Use:	Chipping and Grinding Activity Fac./ Op.
Remaining Capacity(Million):	N/A
Status:	Active
Waste Accepted:	Green Materials;
Hours of Operation:	Monday - Friday 6 am - 5 pm Saturday 6 am - 4 pm
Disposal Area (Acre):	N/A

Detail As Of 01/2014:

Operator Name:	Unknown
Operator Address:	Not reported
Operator City/State/Zip:	Not reported
Operator Contact:	Not reported
Operator Telephone:	Not reported
Operator Email:	Not reported
Owner Name:	Unknown
Owner Address:	Not reported
Owner City/State/Zip:	Not reported
Owner Contact:	Not reported
Owner Telephone:	Not reported
Owner Email:	Not reported

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	288993
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I019799
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	12/07/2012
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	05/09/2008
PROCESSED DATE:	09/26/2005
STATUS CODE NAME:	Terminated
STATUS DATE:	02/26/2013
PLACE SIZE:	22
PLACE SIZE UNIT:	Acres

RIOS RECYCLING (Continued) **S104579463**

FACILITY CONTACT NAME:	Debbie Meier
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	951-300-1758
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Inland Empire Truss Inc
OPERATOR ADDRESS:	1755 Brown Ave
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Dan Irwin
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-300-1758
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Other
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	951-300-1758
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	David Baxter
CERTIFIER TITLE:	Director Of Engineering
CERTIFICATION DATE:	07-SEP-05
PRIMARY SIC:	2452-Prefabricated Wood Buildings and Components
SECONDARY SIC:	5099-Durable Goods, NEC
TERTIARY SIC:	Not reported

WDS:

Facility ID:	Santa Ana River 33I015784
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and

RIOS RECYCLING (Continued) **S104579463**

	repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	9096828500
Facility Contact:	LEWIS GREEN
Agency Name:	CAN FIBRE OF RIVERSIDE
Agency Address:	1755 BROWN AVE.
Agency City,St,Zip:	RIVERSIDE 92509
Agency Contact:	LEWIS GREEN
Agency Telephone:	9096828500
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

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42 **VARNER CONSTRUCTION** **RCRA-SQG** **1004675520**
East **1893 BROWN AVE** **LUST** **CAR000073957**
1/4-1/2 **RIVERSIDE, CA 92509** **FINDS**
0.251 mi. **ECHO**
1326 ft. **HAZNET**

Relative: **Lower**
Actual: **914 ft.**

RCRA-SQG:

Date form received by agency:	05/24/2000
Facility name:	VARNER CONSTRUCTION
Facility address:	1893 BROWN AVE RIVERSIDE, CA 92509
EPA ID:	CAR000073957
Contact:	ED ZIEMBA
Contact address:	1893 BROWN AVE RIVERSIDE, CA 92509
Contact country:	US
Contact telephone:	909-781-2920

VARNER CONSTRUCTION (Continued) **1004675520**

Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: STEVE VARNER
Owner/operator address: 1893 BROWN AVE
RIVERSIDE, CA 92509
Owner/operator country: Not reported
Owner/operator telephone: 909-781-2920
Owner/operator email: Not reported
Owner/operator fax: Not reported
Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D000
. Waste name: Not Defined

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

LUST:
Lead Agency: RIVERSIDE COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500417
Global Id: T0606500417
Latitude: 34.0204461793474
Longitude: -117.375751998217
Status: Completed - Case Closed
Status Date: 09/27/1995

VARNER CONSTRUCTION (Continued) **1004675520**

Case Worker: RIV
RB Case Number: 083302628T
Local Agency: RIVERSIDE COUNTY LOP
File Location: Local Agency Warehouse
Local Case Number: 95084
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:
Global Id: T0606500417
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Global Id: T0606500417
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

LUST:
Global Id: T0606500417
Action Type: ENFORCEMENT
Date: 09/27/1995
Action: Closure/No Further Action Letter - #RCDEH0927

Global Id: T0606500417
Action Type: REMEDIATION
Date: 11/17/1994
Action: Excavation

Global Id: T0606500417
Action Type: ENFORCEMENT
Date: 09/26/1995
Action: File review - #RCDEH Upload Site File 9/30/2015

Global Id: T0606500417
Action Type: Other
Date: 01/31/1995
Action: Leak Reported

Global Id: T0606500417
Action Type: Other
Date: 01/30/1995
Action: Leak Stopped

Global Id: T0606500417
Action Type: Other
Date: 01/30/1995

VARNER CONSTRUCTION (Continued) **1004675520**

Action: Leak Discovery

LUST:
Global Id: T0606500417
Status: Open - Case Begin Date
Status Date: 01/30/1995

Global Id: T0606500417
Status: Open - Remediation
Status Date: 01/31/1995

Global Id: T0606500417
Status: Open - Site Assessment
Status Date: 01/31/1995

Global Id: T0606500417
Status: Completed - Case Closed
Status Date: 09/27/1995

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083302628T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Diesel
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	AGUA MANSA (WILSON)
Enf Type:	CLOS
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	UNK
Global ID:	T0606500417
How Stopped Date:	1/30/1995
Enter Date:	2/24/1995
Date Confirmation of Leak Began:	1/31/1995
Date Preliminary Assessment Began:	Not reported
Discover Date:	1/30/1995
Enforcement Date:	Not reported
Close Date:	9/27/1995
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	2/19/1995
Date Remedial Action Underway:	7/24/1995
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	2/24/1995
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported

VARNER CONSTRUCTION (Continued) **1004675520**

Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.0265539
Longitude:	-117.3753127
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	1
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	CAB
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	95084
Employee:	Malloy
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

VENTURA CO. LUST:

Region:	VENTURA
Facility ID:	95084
Status:	Case Closed

FINDS:

Registry ID: 110002937485

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

VARNER CONSTRUCTION (Continued) **1004675520**

ECHO:
Envid: 1004675520
Registry ID: 110002937485
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002937485

HAZNET:
envid: 1004675520
Year: 2008
GEPAID: CAR000073957
Contact: RICHARD DORMACK SHOP FOREMAN
Telephone: 9097812920
Mailing Name: Not reported
Mailing Address: 1893 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925090000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Other organic solids
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.75
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1004675520
Year: 2001
GEPAID: CAR000073957
Contact: RICHARD DORMACK SHOP FOREMAN
Telephone: 9097812920
Mailing Name: Not reported
Mailing Address: 1893 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925090000
Gen County: Not reported
TSD EPA ID: CAT080025711
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station
Tons: 2.91
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Riverside

envid: 1004675520
Year: 2001
GEPAID: CAR000073957
Contact: RICHARD DORMACK SHOP FOREMAN
Telephone: 9097812920
Mailing Name: Not reported
Mailing Address: 1893 BROWN AVE
Mailing City,St,Zip: RIVERSIDE, CA 925090000
Gen County: Not reported
TSD EPA ID: CAT000613927
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Transfer Station

VARNER CONSTRUCTION (Continued) **1004675520**

Tons:	0.57
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside
envid:	1004675520
Year:	2000
GEPAID:	CAR000073957
Contact:	RICHARD DORMACK SHOP FOREMAN
Telephone:	9097812920
Mailing Name:	Not reported
Mailing Address:	1893 BROWN AVE
Mailing City,St,Zip:	RIVERSIDE, CA 925090000
Gen County:	Not reported
TSD EPA ID:	CAT000613927
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Transfer Station
Tons:	0.16
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

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43 **BRINE FAC,CRESTMORE** **WMUDS/SWAT** **S103443354**
SW **2100 AVALON ST.** **N/A**
1/4-1/2 **RIVERSIDE CA, CA**
0.292 mi.
1543 ft.

Relative: **Lower**

Actual: **884 ft.**

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.
Primary Waste:	PROCES
Primary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Private
Agency Name:	CERTAIN-TEED PROD CORP
Agency Department:	Not reported
Agency Address:	PO BOX 706
Agency City,St,Zip:	RIVERSIDE CA 92502
Agency Contact:	BOB ELLIOTT

BRINE FAC,CRESTMORE (Continued) **S103443354**

Agency Telephone:	9096821881
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	Not reported
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	8
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	3272
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported
Waste Discharge System:	True
Solid Waste Assessment Test Program:	False
Toxic Pits Cleanup Act Program:	False
Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not reported
Threat to Water Quality:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Sub Chapter 15:	True
Regional Board Project Officer:	Not reported
Number of WMUDS at Facility:	0
Section Range:	Not reported
RCRA Facility:	No
Waste Discharge Requirements:	H
Self-Monitoring Rept. Frequency:	Quarterly Submittal
Waste Discharge System ID:	8 332001001
Solid Waste Information ID:	Not reported

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44 **FLEETWOOD VIA RICARDO** **LUST S106387361**
SE **5300 VIA RICARDO** **NPDES N/A**
1/4-1/2 **RIVERSIDE, CA 92509**
0.389 mi.
2053 ft.

Relative: LUST:
Lower

Actual: Lead Agency:	RIVERSIDE COUNTY LOP
893 ft. Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606540693
Global Id:	T0606540693
Latitude:	34.01777112
Longitude:	-117.379775315
Status:	Completed - Case Closed
Status Date:	06/14/2010
Case Worker:	YR

FLEETWOOD VIA RICARDO (Continued) **S106387361**

RB Case Number: Not reported
Local Agency: RIVERSIDE COUNTY LOP
File Location: Local Agency
Local Case Number: 200420231
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Site History/Release Information Two 2,000 gallon gasoline USTs were removed along with associated piping and fuel dispensers in November 2003. Soil samples were collected beneath the dispensers at 2 feet and 5 feet bgs, beneath piping, adjacent to and west of the USTs at 6 feet bgs, and within the UST cavity at 2 feet and 6 feet bgs. Maximum concentrations were 3780 ppm TPHg (T2-6), 520 ppb B (T2-6), 52600 ppb T (T2-6), 20000 ppb E (T2-6), 522000 ppb X (T2-6), 46 ppb MTBE (LED2), ND<4000 ppb TBA (T2-6), 9.45 ppm lead (T2-6). Samples were analyzed for TPHg, BTEX and oxygenates. The site was placed into LOP on October 23, 2003 for further assessment. Assessment Two soil borings (SB-1 and SB-2) were advanced to groundwater (approximately 76 feet bgs) in the vicinity of the former USTs on April 16, 2004. Soil samples from SB-1 and SB-2 were collected at five-foot intervals to a maximum explored depth of 76.5 feet bgs. The highest concentrations were observed from soil samples collected from soil boring SB-1 (UST cavity) at the 15 and 20 foot depths. Maximum concentrations: 350 ppm TPHg (SB-1 at 20 feet bgs), 0.13 ppm B (SB-1 at 20 feet bgs), 5.6 ppm T (SB-1 at 20 feet bgs), 3.8 ppm E (SB-1 at 20 feet bgs), 35 ppm X (SB-1 at 20 feet bgs), 0.53 ppm MTBE (SB-1 at 15 feet bgs), 0.36 ppm tert-Butylbenzene (SB-1 at 20 feet bgs), 1.2 ppm Naphthalene (SB-1 at 20 feet bgs), 5.6 ppm 1,2,4-Trimethylbenzene (SB-1 at 20 feet bgs), 2.7 ppm 1,3,5-Trimethylbenzene (SB-1 at 20 feet bgs), ND<0.50 ppm Ethanol and Methanol. SVE Pilot Testing One vapor extraction well (VE-1) was installed on July 8, 2006 near the southeast corner of the former UST location. SVE well VE-1 was installed to 30 feet bgs and screened between 15 and 30 feet bgs. Soil samples were collected at 5 foot intervals and select samples were analyzed for gasoline and VOCs by EPA Method 8260B. Soil samples collected at 10, 20 and 30 feet bgs were analyzed and were ND for all constituents tested. A SVE pilot test was conducted July 12th through 14th, 2006. The SVE test was proposed for 5-days but was terminated after 48 hours due to a VOC breakthrough. PID readings reported during the SVE test were between 92 to >9999 ppmV and were believed to be erroneous. The consultant stated that laboratory analysis results for vapor samples were at relatively low levels and were inconsistent with field PID readings and more consistent with soil data. The overall mass of vapor phase gasoline recovered over the 48-hour duration of system operation was estimated at 34 lbs (average of 0.7 lbs per hour). Flow rates at VE-1 fluctuated between 50 and 75 cfm. Maximum vapor concentrations were: 740 ppmV TPHg (VE1-3), 2.5 ppmV B (VE1-3), 110 ppmV T (VE1-3), 23 ppmV E (VE1-3), 149 ppmV X (VE1-3), ND MTBE, 11 ppmV 1,2,4 TMB (VE1-3), 5.5 ppmV 1,3,5, TMB (VE1-3). Closure was requested based on the results of the pilot test and five quarters of groundwater monitoring RCDEH denied closure and required the 5-day SVE test to be repeated since vapor concentrations increased over time and the test was terminated after two days. A 5-day SVE pilot test using VE-1 was performed February 17th through 23rd, 2009. Flow rates at VE-1 were erroneously reported to fluctuate between 98 and 269.5 cfm and later corrected to range from 84 to 146 cfm. PID readings throughout the SVE test ranged from 40.4 to >15,000 ppmV. The ROI was calculated to include the entire footprint of the

FLEETWOOD VIA RICARDO (Continued) **S106387361**

former UST cavity and dispensers. MW-1 is screened from 60 to 95 feet bgs and VE-1 is screened between 15 to 30 feet bgs. The overall mass of vapor phase gasoline recovered over the 143-hr duration of system operation was estimated at 233 lbs (avg of 1.6 lbs/hr). Maximum vapor concentrations were: 1100 ppmV TPHg, 0.97 ppmV B, 80 ppmV T, 20 ppmV E, 176 ppmV X, ND<0.28 ppmV MTBE, 0.94 ppmV isopropylbenzene, 2.4 ppmV n-propylbenzene, 0.24 ppmV PCE, 0.20 ppmV sec-butylbenzene, 11 ppmV 1,2,4-TMB, 5.7 ppmV 1,3,5-TMB. Ending vapor concentrations for most constituents detected were higher at the end of the 5-day SVE pilot test than at the beginning of the test. Based on the elevated vapor concentrations detected and mass of vapor phase gasoline recovered during the 5-day SVE pilot test, a 30-day SVE test was required by RCDEH to clearly demonstrate that vapor recovery has reached the point of diminishing returns (asymptotic levels). Soil Excavation Excavation of contaminated soil was proposed in lieu of performing additional SVE testing to expedite site cleanup. Approximately 3200 tons of impacted soil was excavated March 1st through March 23rd, 2010. Twelve (12) confirmation soil samples were collected at the bottom and side walls of the approximately 8192 square feet excavation pit. All soil samples were non-detect for all constituents tested except for 0.006 ppm Xylene and 0.006 ppm 1,2,4 TMB detected in the deep soil sample collected at the west wall of the excavation pit (X24 Deep Wall-W@ approximately 30 feet bgs). Groundwater Monitoring To assess the potential for groundwater impact near the UST, one groundwater monitoring well (MW-1) was installed on July 19, 2004 approximately 20 feet southeast of the former UST cavity that is believed to be downgradient. Soil samples were analyzed at 5 foot intervals from 5 feet to 75 feet bgs. MW-1 was advanced to a depth of 95.5 feet bgs and screened from 56 to 95 feet bgs. Groundwater was encountered at 75 feet bgs. Analytical results for the groundwater sample collected from MW-1 were non-detect for all constituents tested. Maximum soil concentrations were at 65 feet bgs: ND<0.5 ppm TPHg, ND<0.001 ppm B, 0.004 ppm T, 0.002 ppm E, 0.012 ppm X, 0.011 ppm MTBE, ND<0.002 ppm tert-BBNZ, ND<0.002 ppm Napthalene, ND<0.001 ppm 1,2,4-TMB, ND<0.001 ppm 1,3,5-TMB. Five groundwater sampling events were conducted from August 2004 through October 2007. Maximum groundwater concentrations: ND<0.50 ppm TPHg, ND<0.5 ppb B, 0.6 ppb T (10/17/07), ND<1.0 ppb E, ND<1.0 ppb X, ND<5.0 ppb MTBE, 7.6 ppb Naphthalene (9/19/05). Water levels have fluctuated from 73.20 to 78.66 feet bgs. Anticipated groundwater flow direction is to the southeast towards the Santa Ana River. The closest domestic water supply well (Well 04 Old Skotty) is located approximately 1049 feet west of the site and according to the well report on Geotracker, VOCs have not been detected in this well. Regional Board concurred with closure on 5/13/2010 and the no further action/closure letter was issued 6/14/2010

LUST:

Global Id:	T0606540693
Contact Type:	Regional Board Caseworker
Contact Name:	TOM E. MBEKE-EKANEM
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	tmbeke-ekanem@waterboards.ca.gov
Phone Number:	9513202007
Global Id:	T0606540693

FLEETWOOD VIA RICARDO (Continued) **S106387361**

Contact Type: Local Agency Caseworker
Contact Name: YVONNE REYES
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: ayreyes@rivco.org
Phone Number: 9519558982

LUST:
Global Id: T0606540693
Action Type: REMEDIATION
Date: 03/01/2010
Action: Excavation

Global Id: T0606540693
Action Type: RESPONSE
Date: 01/09/2009
Action: Well Installation Workplan

Global Id: T0606540693
Action Type: RESPONSE
Date: 02/20/2009
Action: Other Report / Document

Global Id: T0606540693
Action Type: RESPONSE
Date: 01/28/2010
Action: Other Workplan

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 01/14/2009
Action: Staff Letter - #RCDEH011409

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 08/12/2009
Action: Staff Letter - #RCDEH081209

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 12/14/2009
Action: Staff Letter - #RCDEH121409

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 02/10/2010
Action: Staff Letter - #RCDEH021010

Global Id: T0606540693
Action Type: RESPONSE
Date: 04/08/2010
Action: Other Report / Document

Global Id: T0606540693
Action Type: ENFORCEMENT
Date: 05/13/2010

FLEETWOOD VIA RICARDO (Continued) **S106387361**

Action:	Staff Letter - #RCDEH051310
Global Id:	T0606540693
Action Type:	ENFORCEMENT
Date:	06/14/2010
Action:	Closure/No Further Action Letter - #RCDEH Closure
Global Id:	T0606540693
Action Type:	RESPONSE
Date:	06/13/2010
Action:	Well Destruction Report
Global Id:	T0606540693
Action Type:	Other
Date:	12/05/2003
Action:	Leak Reported
Global Id:	T0606540693
Action Type:	Other
Date:	10/23/2003
Action:	Leak Stopped
Global Id:	T0606540693
Action Type:	RESPONSE
Date:	10/12/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0606540693
Action Type:	Other
Date:	12/04/2003
Action:	Leak Discovery
Global Id:	T0606540693
Action Type:	ENFORCEMENT
Date:	08/30/2007
Action:	Staff Letter - #RCDEH 083007
Global Id:	T0606540693
Action Type:	ENFORCEMENT
Date:	02/25/2008
Action:	Technical Correspondence / Assistance / Other - #RCDEH 022508
Global Id:	T0606540693
Action Type:	REMEDIATION
Date:	07/12/2006
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0606540693
Action Type:	REMEDIATION
Date:	02/17/2009
Action:	Soil Vapor Extraction (SVE)
Global Id:	T0606540693
Action Type:	ENFORCEMENT
Date:	12/08/2008
Action:	Staff Letter - #RCDEH120508

FLEETWOOD VIA RICARDO (Continued) **S106387361**

LUST:

Global Id:	T0606540693
Status:	Open - Case Begin Date
Status Date:	10/23/2003
Global Id:	T0606540693
Status:	Open - Site Assessment
Status Date:	12/05/2003
Global Id:	T0606540693
Status:	Open - Remediation
Status Date:	02/10/2010
Global Id:	T0606540693
Status:	Completed - Case Closed
Status Date:	06/14/2010

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Preliminary site assessment underway
Case Number:	Not reported
Local Case Num:	200420231
Case Type:	Undefined
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	WILSON / VIA CERRA
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	OM
How Stopped:	Close Tank
Leak Cause:	UNK
Leak Source:	UNK
Global ID:	T0606540693
How Stopped Date:	10/23/2003
Enter Date:	Not reported
Date Confirmation of Leak Began:	12/5/2003
Date Preliminary Assessment Began:	12/5/2003
Discover Date:	11/20/2003
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	Not reported

FLEETWOOD VIA RICARDO (Continued) **S106387361**

Latitude:	0
Longitude:	0
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	TME
Staff Initials:	KW
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	Not reported
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	200420231
Employee:	Reyes-LOP
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	407597
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I022830
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	09/04/2014
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	09/20/2010
PROCESSED DATE:	09/20/2010
STATUS CODE NAME:	Terminated
STATUS DATE:	09/04/2014
PLACE SIZE:	12.2
PLACE SIZE UNIT:	Acres

FLEETWOOD VIA RICARDO (Continued) **S106387361**

FACILITY CONTACT NAME:	Chris Godoy
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	951-208-7525
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	MVP RV Inv
OPERATOR ADDRESS:	5300 Via Ricardo Ave
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Sandie Kerrigan
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-208-7234
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	3792-Travel Trailers and Campers
SECONDARY SIC:	3716-Motor Homes
TERTIARY SIC:	Not reported

G45
WSW
1/4-1/2
0.426 mi.
2251 ft.

Relative:
Lower

Actual:
911 ft.

CERTAINTEED CORP
2100 AVALON ST.
RIVERSIDE, CA 92509

Site 1 of 4 in cluster G

Database(s): RCRA-SQG, RESPONSE, ENVIROSTOR, LUST, HIST UST, CHMIRS, LDS, FTTS, HIST FTTS, FINDS, ECHO, EMI, NPDES, WDS

EDR ID Number: 1000395862
EPA ID Number: CAD990663320

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	CERTAINTEED CORP
Facility address:	2100 AVALON ST RIVERSIDE, CA 92509
EPA ID:	CAD990663320
Mailing address:	BOX SEVENTH HUNDRED SIXTH RIVERSIDE, CA 92502
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	CERTAINTEEN CORPORATION
Owner/operator address:	P.O. BOX 869 VALLEY FORGE, PA 19482
Owner/operator country:	Not reported
Owner/operator telephone:	215-687-5000
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	CERTAINTEEN CORPORATION
Owner/operator address:	P.O. BOX 869 CITY NOT REPORTED, PA 99999
Owner/operator country:	Not reported
Owner/operator telephone:	215-687-5000
Owner/operator email:	Not reported
Owner/operator fax:	Not reported

CERTAINTEED CORP (Continued) **1000395862**

Owner/operator extension: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 09/01/1996
Site name: CERTAINTEED CORP
Classification: Small Quantity Generator

Date form received by agency: 04/10/1990
Site name: CERTAINTEED CORPORATION
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980
Site name: CERTAINTEED CORP
Classification: Conditionally Exempt Small Quantity Generator

Corrective Action Summary:
Event date: 01/01/1990
Event: LEAD AGENCY DETERMINATION

Facility Has Received Notices of Violations:
Regulation violated: FR - 263
Area of violation: Transporters - General
Date violation determined: 08/11/1988
Date achieved compliance: 11/28/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/25/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

CERTAINTEED CORP (Continued) **1000395862**

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 08/11/1988
Date achieved compliance: 11/28/1988
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 10/25/1988
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: F - 264.140-150.H
Area of violation: TSD - Financial Requirements
Date violation determined: 08/03/1988
Date achieved compliance: 11/28/1988
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60
Area of violation: Generators - General
Date violation determined: 08/06/1987
Date achieved compliance: 08/31/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/06/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 263
Area of violation: Transporters - General
Date violation determined: 08/06/1987
Date achieved compliance: 08/31/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/06/1987
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H

CERTAINTEED CORP (Continued) **1000395862**

Area of violation: TSD - Financial Requirements
Date violation determined: 12/12/1986
Date achieved compliance: 07/21/1987
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 12/30/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 08/04/1986
Date achieved compliance: 08/04/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 08/04/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 12/19/1985
Date achieved compliance: 08/04/1986
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 07/23/1986
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 09/25/1985
Date achieved compliance: 08/04/1986
Violation lead agency: EPA
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 01/23/1985
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: EPA
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 08/11/1988

CERTAINTEED CORP (Continued) **1000395862**

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 11/28/1988
Evaluation lead agency: State

Evaluation date: 08/11/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 11/28/1988
Evaluation lead agency: State

Evaluation date: 08/03/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 11/28/1988
Evaluation lead agency: State

Evaluation date: 08/06/1987
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/31/1987
Evaluation lead agency: State

Evaluation date: 08/06/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Transporters - General
Date achieved compliance: 08/31/1987
Evaluation lead agency: State

Evaluation date: 12/12/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: TSD - Financial Requirements
Date achieved compliance: 07/21/1987
Evaluation lead agency: State

Evaluation date: 08/04/1986
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/04/1986
Evaluation lead agency: State

Evaluation date: 07/10/1986
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 07/10/1986
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 12/19/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/04/1986

CERTAINTEED CORP (Continued) **1000395862**

Evaluation lead agency: State

Evaluation date: 10/03/1985
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 10/03/1985
Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/25/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Generators - General
Date achieved compliance: 08/04/1986
Evaluation lead agency: EPA

Evaluation date: 07/30/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/23/1985
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

RESPONSE:
Facility ID: 33320002
Site Type: State Response
Site Type Detail: State Response or NPL
Acres: 20.8
National Priorities List: NO
Cleanup Oversight Agencies: NONE SPECIFIED
Lead Agency Description: Not reported
Project Manager: Not reported
Supervisor: Thomas Cota
Division Branch: Cleanup Cypress
Site Code: Not reported
Site Mgmt. Req.: NONE SPECIFIED
Assembly: 60
Senate: 31
Special Program Status: Not reported
Status: Certified
Status Date: 02/01/1984
Restricted Use: NO
Funding: Responsible Party
Latitude: 34.01982
Longitude: -117.3954
APN: NONE SPECIFIED
Past Use: MANUFACTURING - OTHER
Potential COC : Asbestos Containing Materials (ACM
Confirmed COC: Asbestos Containing Materials (ACM

CERTAINTEED CORP (Continued) **1000395862**

Potential Description: SOIL
Alias Name: 110002144581
Alias Type: EPA (FRS #)
Alias Name: 33320002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 02/01/1984
Comments: Our records do not indicate the actual date this site was certified. Our records show 02/1984. We have used 02/01/1984 because this gives us the earliest statute of limitations.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 33320002
Status: Certified
Status Date: 02/01/1984
Site Code: Not reported
Site Type: State Response
Site Type Detailed: State Response or NPL
Acres: 20.8
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Thomas Cota
Division Branch: Cleanup Cypress
Assembly: 60
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 34.01982
Longitude: -117.3954
APN: NONE SPECIFIED
Past Use: MANUFACTURING - OTHER
Potential COC: Asbestos Containing Materials (ACM
Confirmed COC: Asbestos Containing Materials (ACM
Potential Description: SOIL
Alias Name: 110002144581
Alias Type: EPA (FRS #)
Alias Name: 33320002
Alias Type: Envirostor ID Number

CERTAINTEED CORP (Continued) **1000395862**

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 02/01/1984
Comments: Our records do not indicate the actual date this site was certified.
Our records show 02/1984. We have used 02/01/1984 because this gives us the earliest statute of limitations.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 80001506
Status: * Inactive
Status Date: 01/01/2008
Site Code: Not reported
Site Type: Corrective Action
Site Type Detailed: Corrective Action
Acres: 0
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * Unknown
Division Branch: Cleanup Cypress
Assembly: 60
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 34.01919
Longitude: -117.3917
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD990663320
Alias Type: EPA Identification Number
Alias Name: 80001506
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

CERTAINTEED CORP (Continued) **1000395862**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083300480T
Local Case Num:	91654
Case Type:	Soil only
Substance:	Diesel
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	36TH
Enf Type:	CLOS
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Piping
Global ID:	T0606500050
How Stopped Date:	6/28/1991
Enter Date:	7/21/1987
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	7/1/1991
Enforcement Date:	Not reported
Close Date:	10/22/1992
Date Prelim Assessment Workplan Submitted:	7/22/1991
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	7/21/1987
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.018806
Longitude:	-117.3917223
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*

CERTAINTEED CORP (Continued) **1000395862**

Staff: RS
Staff Initials: UNK
Lead Agency: Local Agency
Local Agency: 33000L
Hydr Basin #: UPPER SANTA ANA VALL
Beneficial: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

RIVERSIDE CO. LUST:
Region: RIVERSIDE
Facility ID: 91654
Employee: Thompson
Site Closed: Yes
Case Type: Soil only
Facility Status: closed/action completed
Casetype Decode: Soil only is impacted
Fstatus Decode: Closed/Action completed

HIST UST:
File Number: 0001F4A6
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F4A6.pdf
Region: STATE
Facility ID: 00000016439
Facility Type: Other
Other Type: MANUFACTURING
Contact Name: ROY WINGARTNER
Telephone: 7146821881
Owner Name: CERTAINTEED CORPORATION
Owner Address: 750 SWEDESFORD RD.
Owner City,St,Zip: VALLEY FORGE, PA 19482
Total Tanks: 0004

Tank Num: 001
Container Num: #1
Year Installed: 1974
Tank Capacity: 00050000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4"
Leak Detection: Visual, Stock Inventor

Tank Num: 001
Container Num: #1
Year Installed: 1974
Tank Capacity: 00050000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4"
Leak Detection: Visual, Stock Inventor

Tank Num: 002
Container Num: #2
Year Installed: 1966

CERTAINTEED CORP (Continued) **1000395862**

Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4"
Leak Detection: None

Tank Num: 002
Container Num: #2
Year Installed: 1966
Tank Capacity: 00020000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: 1/4"
Leak Detection: None

Tank Num: 003
Container Num: #3
Year Installed: 1976
Tank Capacity: 00020000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 3/32
Leak Detection: None

Tank Num: 003
Container Num: #3
Year Installed: 1976
Tank Capacity: 00020000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 3/32
Leak Detection: None

Tank Num: 004
Container Num: #4
Year Installed: 1966
Tank Capacity: 00250000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 8
Leak Detection: None

Tank Num: 004
Container Num: #4
Year Installed: 1966
Tank Capacity: 00250000
Tank Used for: WASTE
Type of Fuel: Not reported
Container Construction Thickness: 8
Leak Detection: None

Click here for Geo Tracker PDF:

CHMIRS:
OES Incident Number: 12-5953
OES notification: 10/02/2012
OES Date: Not reported

CERTAINTEED CORP (Continued) **1000395862**

OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Industrial Plant
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1700
Year:	2012
Agency:	SoCal Edison
Incident Date:	10/1/2012
Admin Agency:	Riverside City Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Mineral Oil from 1972 pad mount transformer
Quantity Released:	1
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported

CERTAINTEED CORP (Continued) **1000395862**

#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Equipment failure caused this transformer to release to the concrete.

LDS:

Global Id:	L10004773685
Latitude:	34.01983
Longitude:	-117.3920
Case Type:	Land Disposal Site
Status:	Completed - Case Closed
Status Date:	11/02/2009
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Caseworker:	KDP
Local Agency:	Not reported
RB Case Number:	8 332001001
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Not reported
EDR Link ID:	L10004773685
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

FTTS INSP:

Inspection Number:	19871027CA001 1
Region:	09
Inspection Date:	10/27/87
Inspector:	BERMAN
Violation occurred:	Yes
Investigation Type:	Section 6 PCB State Conducted
Investigation Reason:	Neutral Scheme, State
Legislation Code:	TSCA
Facility Function:	User

HIST FTTS INSP:

Inspection Number:	19871027CA001 1
Region:	09
Inspection Date:	Not reported
Inspector:	BERMAN
Violation occurred:	Yes
Investigation Type:	Section 6 PCB State Conducted
Investigation Reason:	Neutral Scheme, State
Legislation Code:	TSCA
Facility Function:	User

FINDS:

CERTAINTEED CORP (Continued) **1000395862**

Registry ID: 110002144581

Environmental Interest/Information System

California Department of Toxic Substances Control EnviroStor System (DTSC-EnviroStor) is an online search and Geographic Information System (GIS) tool for identifying sites that have known contamination or sites for which there may be reasons to investigate further. The EnviroStor database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites.

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

STATE MASTER

Registry ID: 110055672106

Environmental Interest/Information System

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ECHO:

Envid: 1000395862
Registry ID: 110055672106
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110055672106

Envid: 1000395862
Registry ID: 110002144581

CERTAINTEED CORP (Continued) **1000395862**

DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110002144581

EMI:

Year:	1987
County Code:	33
Air Basin:	SC
Facility ID:	16952
Air District Name:	SC
SIC Code:	3317
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	8
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2

Year:	1990
County Code:	33
Air Basin:	SC
Facility ID:	16952
Air District Name:	SC
SIC Code:	3317
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	4
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	287720
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I003002
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported

CERTAINTEED CORP (Continued) **1000395862**

Discharge Zip:	Not reported
RECEIVED DATE:	05/09/2008
PROCESSED DATE:	04/02/1992
STATUS CODE NAME:	Terminated
STATUS DATE:	04/02/1992
PLACE SIZE:	40
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	James A Burke
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	714-628-1881
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Certainteed Corp
OPERATOR ADDRESS:	PO Box 706
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92502
OPERATOR CONTACT NAME:	James A Burke
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	714-682-1881
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	714-628-1881
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	3292-Asbestos Products
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

CERTAINTEED CORP (Continued) **1000395862**

WDS:

Facility ID:	Santa Ana River 33I015505
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	9098263000
Facility Contact:	HODGE JOHN
Agency Name:	UNIVERSAL FOREST PRODUCTS
Agency Address:	PO BOX 3589
Agency City,St,Zip:	RIVERSIDE 925193589
Agency Contact:	SCOTT W. CONKLIN
Agency Telephone:	9098263000
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

G46 **CERTAINTEED CORPORATION** **HAZNET S112866131**
WSW **2100 AVALON AVE** **HWP N/A**
1/4-1/2 **RIVERSIDE, CA 92509**
0.426 mi.
2251 ft. **Site 2 of 4 in cluster G**

Relative: **Lower**
Actual: **911 ft.**

HAZNET:

envid:	S112866131
Year:	1998
GEPAID:	CAC001085088

CERTAINTEED CORPORATION (Continued) **S112866131**

Contact:	LLOYD AMBLER
Telephone:	6103417713
Mailing Name:	Not reported
Mailing Address:	2100 AVALON AVE
Mailing City,St,Zip:	RIVERSIDE, CA 925090000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	115.4636
Cat Decode:	Not reported
Method Decode:	Not reported
Facility County:	Riverside

HWP:

EPA Id:	CAD990663320
Cleanup Status:	CLOSED
Latitude:	34.01919
Longitude:	-117.3917
Facility Type:	Historical - Non-Operating
Facility Size:	Not reported
Team:	Not reported
Supervisor:	Not reported
Site Code:	Not reported
Assembly District:	60
Senate District:	31
Public Information Officer:	Not reported
Public Information Officer:	Not reported

Closure:

EPA Id:	CAD990663320
Facility Type:	Historical - Non-Operating
Unit Names:	Unit1
Event Description:	Closure Administrative - ISSUE CLOSURE VERIFICATION
Actual Date:	05/15/2017

G47 **CERTAINTEED, RIVERSIDE** **HIST Cal-Sites** **S102008375**
WSW **2100 AVALON ST** **N/A**
1/4-1/2 **RIVERSIDE, CA 92509**
0.426 mi.
2251 ft. **Site 3 of 4 in cluster G**

Relative:
Lower

Actual:
911 ft.

Calsite:

Region:	CYPRESS
Facility ID:	33320002
Facility Type:	RP
Type:	RESPONSIBLE PARTY
Branch:	SB
Branch Name:	SO CAL - CYPRESS
File Name:	Not reported
State Senate District:	02011984
Status:	CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT
Status Name:	CERTIFIED
Lead Agency:	N/A
NPL:	Not reported
SIC Code:	32

CERTAINTEED, RIVERSIDE (Continued) **S102008375**

SIC Name:	MANU - STONE, CLAY & GLASS PRODUCTS
Access:	Not reported
Cortese:	Not reported
Hazardous Ranking Score:	Not reported
Date Site Hazard Ranked:	Not reported
Groundwater Contamination:	Not reported
Staff Member Responsible for Site:	Not reported
Supervisor Responsible for Site:	Not reported
Region Water Control Board:	Not reported
Region Water Control Board Name:	Not reported
Lat/Long Direction:	Not reported
Lat/Long (dms):	0 0 0 / 0 0 0
Lat/long Method:	Not reported
Lat/Long Description:	Not reported
State Assembly District Code:	66
State Senate District Code:	31
Facility ID:	33320002
Activity:	CERT
Activity Name:	CERTIFICATION
AWP Code:	Not reported
Proposed Budget:	0
AWP Completion Date:	Not reported
Revised Due Date:	Not reported
Comments Date:	02011984
Est Person-Yrs to complete:	0
Estimated Size:	Not reported
Request to Delete Activity:	Not reported
Activity Status:	CERT
Definition of Status:	CERTIFIED
Liquids Removed (Gals):	0
Liquids Treated (Gals):	0
Action Included Capping:	Not reported
Well Decommissioned:	Not reported
Action Included Fencing:	Not reported
Removal Action Certification:	Not reported
Activity Comments:	Not reported
For Commercial Reuse:	0
For Industrial Reuse:	0
For Residential Reuse:	0
Unknown Type:	0
Alternate Address:	2100 AVALON STREET
Alternate City,St,Zip:	RIVERSIDE, CA 92502
Alternate Address:	2100 AVALON ST
Alternate City,St,Zip:	RIVERSIDE, CA 92509
Background Info:	Not reported
Comments Date:	01181996
Comments:	Our records do not indicate the actual date this site was
Comments Date:	01181996
Comments:	certified. Our records show 02/1984. We have used
Comments Date:	01181996
Comments:	02/01/1984 because this gives us the earliest statute of
Comments Date:	01181996
Comments:	limitations.
Comments Date:	01181996
Comments:	Not reported
Comments Date:	02011984
Comments:	80 cubic yards of contaminated soil removed.

CERTAINTEED, RIVERSIDE (Continued) **S102008375**

Comments Date:	02011984
Comments:	This certification was comfirmed by a report prepared by the
Comments Date:	02011984
Comments:	Auditor General. The Auditor General conducted an audit of
Comments Date:	02011984
Comments:	the Department's records to confirm a list of sites where
Comments Date:	02011984
Comments:	the Department was involved in the cleanup and the cleanup
Comments Date:	02011984
Comments:	had been completed. This Auditor General list became the
Comments Date:	02011984
Comments:	basis for our historical certification information. Many of
Comments Date:	02011984
Comments:	the sites on this list were handled by our Surveillance and
Comments Date:	02011984
Comments:	Enforcement Staff. Much of this work was in response to
Comments Date:	02011984
Comments:	complaints from the public or reports from industry and the
Comments Date:	02011984
Comments:	response action may have only addressed the immediate
Comments Date:	02011984
Comments:	problem and not the entire facility.
ID Name:	Not reported
ID Value:	Not reported
Alternate Name:	CERTAINTEED, RIVERSIDE
Alternate Name:	Not reported
Special Programs Code:	Not reported
Special Programs Name:	Not reported

G48 **CERTAIN-TEED CORPORATION** **LUST** **S105025842**
WSW **2100 AVALON** **HIST CORTESE** **N/A**
1/4-1/2 **RIVERDALE, CA 92509** **NPDES**
0.426 mi.
2251 ft. **Site 4 of 4 in cluster G**

Relative: **Lower**
Actual: **911 ft.**

LUST:

Lead Agency:	RIVERSIDE COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500050
Global Id:	T0606500050
Latitude:	34.0180598788382
Longitude:	-117.395907533096
Status:	Completed - Case Closed
Status Date:	10/22/1992
Case Worker:	SCB
RB Case Number:	083300480T
Local Agency:	RIVERSIDE COUNTY LOP
File Location:	Local Agency Warehouse
Local Case Number:	91654
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0606500050
Contact Type:	Regional Board Caseworker
Contact Name:	ROSE SCOTT
Organization Name:	SANTA ANA RWQCB (REGION 8)

CERTAIN-TEED CORPORATION (Continued) **S105025842**

Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: rose.scott@waterboards.ca.gov
Phone Number: 9513206375

Global Id: T0606500050
Contact Type: Local Agency Caseworker
Contact Name: SHARON BOLTINGHOUSE
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: sbolting@rivco.org
Phone Number: 9519558980

LUST:
Global Id: T0606500050
Action Type: REMEDIATION
Date: 04/02/1992
Action: Excavation

Global Id: T0606500050
Action Type: ENFORCEMENT
Date: 10/21/1992
Action: File review - #RCDEH Upload Site File 4/21/2010

Global Id: T0606500050
Action Type: Other
Date: 07/22/1991
Action: Leak Reported

Global Id: T0606500050
Action Type: Other
Date: 06/28/1991
Action: Leak Stopped

Global Id: T0606500050
Action Type: ENFORCEMENT
Date: 10/22/1992
Action: Closure/No Further Action Letter - #RCDEH1022

LUST:
Global Id: T0606500050
Status: Open - Case Begin Date
Status Date: 06/28/1991

Global Id: T0606500050
Status: Open - Site Assessment
Status Date: 07/22/1991

Global Id: T0606500050
Status: Open - Remediation
Status Date: 04/02/1992

Global Id: T0606500050
Status: Completed - Case Closed
Status Date: 10/22/1992

CERTAIN-TEED CORPORATION (Continued) **S105025842**

HIST CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	083300480T

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	210894
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I015505
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	12/01/1999
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	UFP Riverside LLC
Discharge Address:	2801 E Beltline Ave NE
Discharge City:	Grand Rapids
Discharge State:	Michigan
Discharge Zip:	49525
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported

CERTAIN-TEED CORPORATION (Continued) **S105025842**

EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	210894
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I015505
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	05/09/2008
PROCESSED DATE:	12/01/1999
STATUS CODE NAME:	Active
STATUS DATE:	12/01/1999
PLACE SIZE:	40
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Marwan Salem
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	909-826-3000
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	MSALEM@UFPI.COM

CERTAIN-TEED CORPORATION (Continued) **S105025842**

OPERATOR NAME:	UFP Riverside LLC
OPERATOR ADDRESS:	2801 E Beltline Ave NE
OPERATOR CITY:	Grand Rapids
OPERATOR STATE:	Michigan
OPERATOR ZIP:	49525
OPERATOR CONTACT NAME:	Robert Dickens
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	616-364-6161
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	rdickens@ufpi.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Michigan
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Riverside Canal
CERTIFIER NAME:	Jason Croy
CERTIFIER TITLE:	GMO
CERTIFICATION DATE:	12-JUN-15
PRIMARY SIC:	2421-Sawmills and Planing Mills, General
SECONDARY SIC:	2439-Structural Wood Members, NEC
TERTIARY SIC:	Not reported

H49 **INLAND CONCRETE** **LUST** **1000151916**
SSW **2434** **WMUDS/SWAT** **N/A**
1/4-1/2 **RIVERSIDE, CA 92509** **HIST UST**
0.468 mi. **CA FID UST**
2470 ft. **Site 1 of 2 in cluster H** **HIST CORTESE**
NPDES

Relative:
Lower

Actual:
844 ft.

LUST:

Lead Agency:	RIVERSIDE COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500551
Global Id:	T0606500551

INLAND CONCRETE (Continued) **1000151916**

Latitude:	34.015251586444
Longitude:	-117.390072459
Status:	Completed - Case Closed
Status Date:	10/15/2000
Case Worker:	SCB
RB Case Number:	083303309T
Local Agency:	RIVERSIDE COUNTY LOP
File Location:	Local Agency Warehouse
Local Case Number:	9814657
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0606500551
Contact Type:	Regional Board Caseworker
Contact Name:	CARL BERNHARDT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	cbernhardt@waterboards.ca.gov
Phone Number:	9517824495

Global Id:	T0606500551
Contact Type:	Local Agency Caseworker
Contact Name:	SHARON BOLTINGHOUSE
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	sbolting@rivco.org
Phone Number:	9519558980

LUST:

Global Id:	T0606500551
Action Type:	Other
Date:	10/26/1998
Action:	Leak Discovery

Global Id:	T0606500551
Action Type:	ENFORCEMENT
Date:	10/14/2000
Action:	File review - #RCDEH Upload Site File 4/23/2015

Global Id:	T0606500551
Action Type:	Other
Date:	10/26/1998
Action:	Leak Reported

Global Id:	T0606500551
Action Type:	Other
Date:	10/26/1998
Action:	Leak Stopped

Global Id:	T0606500551
Action Type:	ENFORCEMENT
Date:	10/15/2000
Action:	Closure/No Further Action Letter - #Riv Co Closure

INLAND CONCRETE (Continued) **1000151916**

LUST:
Global Id: T0606500551
Status: Open - Case Begin Date
Status Date: 10/26/1998

Global Id: T0606500551
Status: Completed - Case Closed
Status Date: 10/15/2000

Lead Agency: RIVERSIDE COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500028
Global Id: T0606500028
Latitude: 34.01453
Longitude: -117.389418
Status: Completed - Case Closed
Status Date: 04/04/1989
Case Worker: RIV
RB Case Number: 083300195T
Local Agency: RIVERSIDE COUNTY LOP
File Location: Not reported
Local Case Number: Not reported
Potential Media Affect: Soil
Potential Contaminants of Concern: Diesel
Site History: Not reported

LUST:
Global Id: T0606500028
Contact Type: Regional Board Caseworker
Contact Name: PATRICIA HANNON
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: phannon@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0606500028
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

LUST:
Global Id: T0606500028
Action Type: Other
Date: 10/02/1986
Action: Leak Reported

LUST:
Global Id: T0606500028
Status: Open - Case Begin Date
Status Date: 10/02/1986

INLAND CONCRETE (Continued) **1000151916**

Global Id:	T0606500028
Status:	Open - Site Assessment
Status Date:	03/01/1987
Global Id:	T0606500028
Status:	Completed - Case Closed
Status Date:	04/04/1989

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Leak being confirmed
Case Number:	083303309T
Local Case Num:	9814657
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	24TH
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0606500551
How Stopped Date:	Not reported
Enter Date:	12/15/1998
Date Confirmation of Leak Began:	1/1/1965
Date Preliminary Assessment Began:	Not reported
Discover Date:	10/26/1998
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	12/15/1998
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	34.0152181
Longitude:	-117.3905682
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	CAB

INLAND CONCRETE (Continued) **1000151916**

Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

RIVERSIDE CO. LUST:

Region:	RIVERSIDE
Facility ID:	9814657
Employee:	Malloy
Site Closed:	Yes
Case Type:	Soil only
Facility Status:	closed/action completed
Casetype Decode:	Soil only is impacted
Fstatus Decode:	Closed/Action completed

WMUDS/SWAT:

Edit Date:	Not reported
Complexity:	Not reported
Primary Waste:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Base Meridian:	Not reported
NPID:	Not reported
Tonnage:	0
Regional Board ID:	Not reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Not reported
Agency Name:	Not reported
Agency Department:	Not reported
Agency Address:	Not reported
Agency City,St,Zip:	Not reported
Agency Contact:	Not reported
Agency Telephone:	Not reported
Land Owner Name:	Not reported
Land Owner Address:	Not reported
Land Owner City,St,Zip:	Not reported
Land Owner Contact:	Not reported
Land Owner Phone:	Not reported
Region:	8
Facility Type:	Not reported
Facility Description:	Not reported
Facility Telephone:	Not reported
SWAT Facility Name:	Not reported
Primary SIC:	Not reported
Secondary SIC:	Not reported
Comments:	Not reported
Last Facility Editors:	Not reported

INLAND CONCRETE (Continued) **1000151916**

Waste Discharge System: False
Solid Waste Assessment Test Program: True
Toxic Pits Cleanup Act Program: False
Resource Conservation Recovery Act: False
Department of Defence: False
Solid Waste Assessment Test Program: Not reported
Threat to Water Quality: Not reported
Sub Chapter 15: False
Regional Board Project Officer: MA
Number of WMUDS at Facility: 1
Section Range: Not reported
RCRA Facility: Not reported
Waste Discharge Requirements: Not reported
Self-Monitoring Rept. Frequency: Not reported
Waste Discharge System ID: 8 330017NUR
Solid Waste Information ID: 33-AA-0073

HIST UST:
File Number: 0001F716
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F716.pdf
Region: STATE
Facility ID: 00000020173
Facility Type: Other
Other Type: MANUFACTURER
Contact Name: LYNCH, THOMAS D.
Telephone: 7147889720
Owner Name: INLAND CONCRETE ENTERPRISES,
Owner Address: 2434 RUBIDOUX BLVD.
Owner City,St,Zip: RIVERSIDE, CA 92509
Total Tanks: 0003

Tank Num: 001
Container Num: 1
Year Installed: 1981
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 002
Container Num: 2
Year Installed: 1981
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

Tank Num: 003
Container Num: 3
Year Installed: 1974
Tank Capacity: 00001900
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor

INLAND CONCRETE (Continued) **1000151916**

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID:	33003082
Regulated By:	UTNKA
Regulated ID:	00020173
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7147889720
Mail To:	Not reported
Mailing Address:	2434 RUBIDOUX BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	RIVERSIDE 92509
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

HIST CORTESE:

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	083303309T

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	083300195T

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	403268
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33NEC000135
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	05/06/2010
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	OldCastle Precast Inc
Discharge Address:	2434 Rubidoux Blvd
Discharge City:	Riverside
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported

INLAND CONCRETE (Continued) **1000151916**

PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8

INLAND CONCRETE (Continued) **1000151916**

Regulatory Measure Id:	403268
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33NEC000135
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	07/22/2015
PROCESSED DATE:	05/06/2010
STATUS CODE NAME:	Active
STATUS DATE:	07/22/2015
PLACE SIZE:	35
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Pierre Cabello
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	951-241-8923
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	pierre.cabello@oldcaste.com
OPERATOR NAME:	OldCastle Precast Inc
OPERATOR ADDRESS:	2434 Rubidoux Blvd
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Pierre Cabello
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	951-241-8923
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	pierre.cabello@oldcaste.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	559-416-9062
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported

INLAND CONCRETE (Continued) **1000151916**

CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	santa ana river
CERTIFIER NAME:	PIERRE CABELLO
CERTIFIER TITLE:	SERVICE MANAGER
CERTIFICATION DATE:	25-AUG-16
PRIMARY SIC:	3272-Concrete Products, Except Block and Brick
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

H50 **INLAND CONCRETE ENTERPRISES** **LUST** **1006837231**
SSW **2434 RUBIDOUX BLVD** **SWEEPS UST** **N/A**
1/4-1/2 **RIVERSIDE, CA 92509** **FINDS**
0.468 mi. **WDS**
2470 ft. **Site 2 of 2 in cluster H**

Relative: **Lower**
Actual: **844 ft.**

LUST REG 8:

Region:	8
County:	Riverside
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083300195T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Diesel
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	24TH
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0606500028
How Stopped Date:	Not reported
Enter Date:	5/20/1987
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	Not reported
Enforcement Date:	Not reported
Close Date:	4/4/1989
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	3/1/1987
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	5/20/1987
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported

INLAND CONCRETE ENTERPRISES (Continued) **1006837231**

Oversite Program:	LUST
Latitude:	34.0152181
Longitude:	-117.3905682
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	PAH
Staff Initials:	UNK
Lead Agency:	Local Agency
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

SWEEPS UST:

Status:	Active
Comp Number:	20173
Number:	1
Board Of Equalization:	44-018072
Referral Date:	11-03-92
Action Date:	11-03-92
Created Date:	02-29-88
Owner Tank Id:	000131
SWRCB Tank Id:	33-000-020173-000001
Tank Status:	A
Capacity:	9970
Active Date:	11-03-92
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	2

Status:	Active
Comp Number:	20173
Number:	1
Board Of Equalization:	44-018072
Referral Date:	11-03-92
Action Date:	11-03-92
Created Date:	02-29-88
Owner Tank Id:	000131
SWRCB Tank Id:	33-000-020173-000002
Tank Status:	A
Capacity:	5000
Active Date:	11-03-92
Tank Use:	M.V. FUEL
STG:	P
Content:	LEADED
Number Of Tanks:	Not reported

INLAND CONCRETE ENTERPRISES (Continued) **1006837231**

FINDS:

Registry ID: 110013981290

Environmental Interest/Information System
AIR EMISSIONS CLASSIFICATION UNKNOWN

STATE MASTER

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

WDS:

Facility ID:	Santa Ana River 33I001905
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	INLAND CONCRETE ENTERPRISES
Agency Address:	2434 Rubidoux Blvd
Agency City,St,Zip:	Riverside 925092187
Agency Contact:	MICHAEL L CHRISTENSEN
Agency Telephone:	9497889720
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported
Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and

INLAND CONCRETE ENTERPRISES (Continued) **1006837231**

disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

51
ESE
1/4-1/2
0.499 mi.
2637 ft.

RIOS RECYCLING FACILITY **SWF/LF** **S113473424**
5190 WILSON ST. **N/A**
RIVERSIDE, CA

Relative:
Lower

Actual:
877 ft.

SWF/LF (SWIS):

Region:	STATE
Facility ID:	33-AA-0355
Lat/Long:	34.0205 / -117.3744
Owner Name:	Michael Madrid
Owner Telephone:	9516834300
Owner Address:	Not reported
Owner Address2:	5190 Wilson St.
Owner City,St,Zip:	Riverside, CA 92509
Operational Status:	Active
Operator:	Chayo Rios
Operator Phone:	9513771363
Operator Address:	Not reported
Operator Address2:	P.O. Box 1463
Operator City,St,Zip:	Chino Hills, CA 91709
Permit Date:	03/20/2013
Permit Status:	Notification
Permitted Acreage:	$3.20
Activity:	Chipping and Grinding Activity Fac./ Op.
Regulation Status:	Notification
Landuse Name:	Not reported
GIS Source:	Map
Category:	Composting
Unit Number:	01
Inspection Frequency:	Quarterly
Accepted Waste:	Green Materials,Wood waste
Closure Date:	Not reported
Closure Type:	Not reported
Disposal Acreage:	Not reported
SWIS Num:	33-AA-0355
Waste Discharge Requirement Num:	Not reported
Program Type:	Not reported
Permitted Throughput with Units:	199
Actual Throughput with Units:	Tons/day
Permitted Capacity with Units:	62400
Remaining Capacity:	Not reported
Remaining Capacity with Units:	Tons/year
Lat/Long:	34.0205 / -117.3744

52
SSE
1/2-1
0.609 mi.
3216 ft.

SIERRA ALUMINUM
2345 FLEETWOOD DR
RIVERSIDE, CA 92509

ENVIROSTOR
CHMIRS
NPDES

S100220249
N/A

Relative:
Lower

Actual:
887 ft.

ENVIROSTOR:

Facility ID:	71002953
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress
Assembly:	60
Senate:	31
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.01506
Longitude:	-117.3787
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD982002503
Alias Type:	EPA Identification Number
Alias Name:	110000479633
Alias Type:	EPA (FRS #)
Alias Name:	71002953
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

CHMIRS:

OES Incident Number:	012197

SIERRA ALUMINUM (Continued) **S100220249**

OES notification:	Not reported
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**04-AUG-90**
Property Use:	700
Agency Id Number:	33100
Agency Incident Number:	9031826
Time Notified:	2100
Time Completed:	2400
Surrounding Area:	700
Estimated Temperature:	76
Property Management:	P
More Than Two Substances Involved?:	N
Resp Agncy Personel # Of Decontaminated:	0
Responding Agency Personel # Of Injuries:	0
Responding Agency Personel # Of Fatalities:	0
Others Number Of Decontaminated:	0
Others Number Of Injuries:	0
Others Number Of Fatalities:	0
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	JA TAYLOR FC 938
Report Date:	05-AUG-90
Facility Telephone:	714 247-0604
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Not reported
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	88-92
Agency:	Not reported
Incident Date:	04-AUG-90
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Not reported
Site Type:	Not reported
E Date:	30-MAY-91
Substance:	Not reported
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported

SIERRA ALUMINUM (Continued) **S100220249**

#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	N
Description:	Not reported
OES Incident Number:	12-0651
OES notification:	02/01/2012
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Yes
Waterway:	Drainage swale
Spill Site:	Industrial Plant
Cleanup By:	None
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	1200
Year:	2012
Agency:	Sierra Aluminium Company
Incident Date:	1/31/2012
Admin Agency:	Riverside City Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Drainage swale
E Date:	Not reported
Substance:	Cooling Tower Water
Quantity Released:	10,000

SIERRA ALUMINUM (Continued) **S100220249**

Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	RP states that a pump seal failed causing the release of cooling tower water to a drainage swale. The storm drain system would discharge into the Santa Ana River. However, the water has not been detected any further than 100' into the drainage swale. The estimated amount of the release is in excess of 10,000 gallons.

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	210705
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 33I002351
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	03/31/1992
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Sierra Aluminum Company
Discharge Address:	2345 Fleetwood Drive
Discharge City:	Riverside
Discharge State:	California
Discharge Zip:	92509
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported

SIERRA ALUMINUM (Continued) **S100220249**

OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	210705
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 33I002351
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported

SIERRA ALUMINUM (Continued) **S100220249**

Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	05/09/2008
PROCESSED DATE:	03/31/1992
STATUS CODE NAME:	Active
STATUS DATE:	03/31/1992
PLACE SIZE:	5
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Naro S Kuch
FACILITY CONTACT TITLE:	Environmental Manager
FACILITY CONTACT PHONE:	951-781-7800
FACILITY CONTACT PHONE EXT:	3115
FACILITY CONTACT EMAIL:	nkuch@sierraaluminum.com
OPERATOR NAME:	Sierra Aluminum Company
OPERATOR ADDRESS:	2345 Fleetwood Drive
OPERATOR CITY:	Riverside
OPERATOR STATE:	California
OPERATOR ZIP:	92509
OPERATOR CONTACT NAME:	Naro S Kuch
OPERATOR CONTACT TITLE:	Environmental Manager
OPERATOR CONTACT PHONE:	951-781-7800
OPERATOR CONTACT PHONE EXT:	3115
OPERATOR CONTACT EMAIL:	nkuch@sierraaluminium.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	951-934-4014
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	Naro Kuch

SIERRA ALUMINUM (Continued) **S100220249**

CERTIFIER TITLE:	Environmental Manager
CERTIFICATION DATE:	03-JUN-15
PRIMARY SIC:	3354-Aluminum Extruded Products
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 04/06/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 04/06/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 14

Source: EPA
Telephone: N/A
Last EDR Contact: 04/06/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/06/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 02/06/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 66

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/20/2018
Next Scheduled EDR Contact: 07/30/2018
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 02/06/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 66

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 04/20/2018
Next Scheduled EDR Contact: 07/30/2018
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/22/2017
Date Data Arrived at EDR: 06/13/2017
Date Made Active in Reports: 09/15/2017
Number of Days to Update: 94

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 02/09/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/13/2017
Date Data Arrived at EDR: 11/27/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 74

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 63

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/12/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 48

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)
Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/12/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/12/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/14/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 10/16/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/14/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 10/24/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 01/06/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 04/13/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/29/2018
Number of Days to Update: 15
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/14/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80
Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/24/2017
Date Data Arrived at EDR: 07/27/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 134
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 10/12/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80
Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 10/24/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80
Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/14/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80
Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 10/16/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 01/13/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 80

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/23/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/22/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 36
Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 21
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 36
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/09/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 39

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 02/09/2018
Next Scheduled EDR Contact: 02/26/2018
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 01/30/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 04/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 02/02/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 16

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 01/30/2018
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2017
Date Data Arrived at EDR: 08/18/2017
Date Made Active in Reports: 09/21/2017
Number of Days to Update: 34

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 04/18/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 16

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 02/27/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database
A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 02/28/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 27

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database
The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 01/28/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 04/16/2018
Number of Days to Update: 46

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/08/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 0

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 01/19/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 63

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 02/15/2018
Date Data Arrived at EDR: 02/20/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 42

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 04/24/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 03/12/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 7

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/12/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/26/2017
Date Made Active in Reports: 02/09/2018
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 04/13/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 04/11/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63
Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 02/16/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 01/11/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 42
Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88
Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6
Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198
Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/23/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 04/09/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/22/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 21

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/09/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/08/2017
Number of Days to Update: 21

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/20/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 02/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 126
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/13/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 04/09/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 03/09/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 01/26/2018
Next Scheduled EDR Contact: 05/07/2018
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/03/2018
Date Data Arrived at EDR: 01/04/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 99
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 79

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 04/06/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 04/11/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 12/23/2016
Date Data Arrived at EDR: 12/27/2016
Date Made Active in Reports: 02/17/2017
Number of Days to Update: 52

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 01/19/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 02/06/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 24

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 04/06/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 10/29/2017
Date Data Arrived at EDR: 11/28/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 45

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 92

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/21/2018
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 28

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 02/23/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 01/13/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 03/02/2018
Number of Days to Update: 42

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2016
Date Data Arrived at EDR: 10/31/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 73

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 04/13/2018
Next Scheduled EDR Contact: 07/30/2018
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 01/04/2018
Date Data Arrived at EDR: 01/19/2018
Date Made Active in Reports: 04/13/2018
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 03/02/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/21/2018
Date Made Active in Reports: 03/23/2018
Number of Days to Update: 30
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 02/08/2018
Date Data Arrived at EDR: 02/08/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 0
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 03/27/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 12/01/2017
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 42
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 03/21/2017
Date Made Active in Reports: 08/15/2017
Number of Days to Update: 147
Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 03/23/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 54

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 04/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 55

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 04/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/14/2018
Date Data Arrived at EDR: 02/16/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 46

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/12/2017
Date Made Active in Reports: 10/17/2017
Number of Days to Update: 97

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 04/12/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/21/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 41

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing
Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/21/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 41
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database
A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/08/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 02/06/2018
Number of Days to Update: 28
Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 04/11/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 31
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 02/27/2018
Date Data Arrived at EDR: 03/05/2018
Date Made Active in Reports: 04/16/2018
Number of Days to Update: 42
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 02/14/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 29
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 03/05/2018
Date Data Arrived at EDR: 03/05/2018
Date Made Active in Reports: 04/19/2018
Number of Days to Update: 45
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 03/05/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 35
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/14/2017
Date Data Arrived at EDR: 12/15/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 32
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 12/11/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 36
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 04/13/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 03/21/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2018
Date Data Arrived at EDR: 01/11/2018
Date Made Active in Reports: 02/22/2018
Number of Days to Update: 42

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 63

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 04/24/2047
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/05/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 10

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 01/25/2018
Date Data Arrived at EDR: 01/26/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 47

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 03/26/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 02/26/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 14

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 02/27/2018
Date Made Active in Reports: 04/16/2018
Number of Days to Update: 48

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 01/05/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 40

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 04/25/2018
Next Scheduled EDR Contact: 08/13/2018
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/05/2018
Date Data Arrived at EDR: 03/08/2018
Date Made Active in Reports: 04/16/2018
Number of Days to Update: 39

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 01/29/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/05/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 9

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 04/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 08/03/2017
Date Data Arrived at EDR: 08/08/2017
Date Made Active in Reports: 10/16/2017
Number of Days to Update: 69

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/26/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 47

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 04/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/08/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 08/04/2017
Number of Days to Update: 56

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 03/28/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 02/02/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 54

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/14/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 28

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 02/06/2018
Date Data Arrived at EDR: 02/09/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 33

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 04/16/2018
Next Scheduled EDR Contact: 07/30/2018
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 04/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206
Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 56
Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/16/2018
Date Data Arrived at EDR: 01/16/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 29
Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 04/17/2018
Next Scheduled EDR Contact: 07/30/2018
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 04/21/2017
Date Made Active in Reports: 10/09/2017
Number of Days to Update: 171
Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 04/11/2018
Next Scheduled EDR Contact: 07/30/2018
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/01/2018
Date Data Arrived at EDR: 01/17/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 28
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 04/17/2018
Next Scheduled EDR Contact: 07/30/2018
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 04/11/2018
Next Scheduled EDR Contact: 07/30/2018
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/09/2017
Date Data Arrived at EDR: 03/10/2017
Date Made Active in Reports: 05/03/2017
Number of Days to Update: 54
Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 04/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/04/2018
Date Data Arrived at EDR: 01/05/2018
Date Made Active in Reports: 01/18/2018
Number of Days to Update: 13

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 04/05/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/21/2018
Date Data Arrived at EDR: 02/22/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 40

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 01/05/2018
Date Made Active in Reports: 01/17/2018
Number of Days to Update: 12

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 03/29/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 01/11/2018
Date Data Arrived at EDR: 01/12/2018
Date Made Active in Reports: 02/08/2018
Number of Days to Update: 27

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 02/27/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 15

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 03/27/2018
Date Data Arrived at EDR: 03/29/2018
Date Made Active in Reports: 04/16/2018
Number of Days to Update: 18

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 02/20/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 02/22/2018
Date Data Arrived at EDR: 02/27/2018
Date Made Active in Reports: 03/29/2018
Number of Days to Update: 30

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 01/31/2018
Date Data Arrived at EDR: 02/01/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 41

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 04/25/2018
Next Scheduled EDR Contact: 08/13/2018
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 02/05/2018
Date Data Arrived at EDR: 02/13/2018
Date Made Active in Reports: 04/03/2018
Number of Days to Update: 49

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/05/2018
Date Data Arrived at EDR: 02/13/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 35

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/05/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 02/07/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 49
Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/07/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/08/2017
Date Data Arrived at EDR: 12/12/2017
Date Made Active in Reports: 01/31/2018
Number of Days to Update: 50
Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 03/15/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/15/2018
Number of Days to Update: 50
Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 04/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 01/18/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 56
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/19/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 01/18/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 03/28/2018
Number of Days to Update: 64
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 03/19/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 01/03/2018
Date Made Active in Reports: 02/05/2018
Number of Days to Update: 33

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/04/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 01/03/2018
Date Made Active in Reports: 02/14/2018
Number of Days to Update: 42

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 04/04/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 11/01/2017
Date Data Arrived at EDR: 11/03/2017
Date Made Active in Reports: 11/17/2017
Number of Days to Update: 14

Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 11/30/2017
Date Data Arrived at EDR: 12/01/2017
Date Made Active in Reports: 01/16/2018
Number of Days to Update: 46

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 04/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 03/05/2018
Date Data Arrived at EDR: 03/07/2018
Date Made Active in Reports: 04/16/2018
Number of Days to Update: 40

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

Solid Waste Facilities
San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58
Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 04/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

Environmental Case Listing
The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24
Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities
A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10
Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/02/2017
Date Data Arrived at EDR: 11/07/2017
Date Made Active in Reports: 12/19/2017
Number of Days to Update: 42
Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 04/02/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/20/2017
Date Data Arrived at EDR: 12/21/2017
Date Made Active in Reports: 02/01/2018
Number of Days to Update: 42
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 07/02/2018
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 11/16/2017
Date Data Arrived at EDR: 11/17/2017
Date Made Active in Reports: 12/18/2017
Number of Days to Update: 31
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 12/12/2017
Date Data Arrived at EDR: 12/14/2017
Date Made Active in Reports: 01/11/2018
Number of Days to Update: 28
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/23/2018
Date Made Active in Reports: 04/11/2018
Number of Days to Update: 78
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/07/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 02/20/2018
Date Data Arrived at EDR: 02/20/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 27
Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22
Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13
Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 02/22/2018
Next Scheduled EDR Contact: 06/11/2018
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 02/04/2018
Date Data Arrived at EDR: 02/06/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 42

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 02/15/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 12/14/2017
Date Data Arrived at EDR: 12/15/2017
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 28

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 03/08/2018
Date Data Arrived at EDR: 03/13/2018
Date Made Active in Reports: 03/29/2018
Number of Days to Update: 16

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 04/16/2018
Number of Days to Update: 20

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 03/22/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/04/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 02/06/2018
Number of Days to Update: 28

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 03/22/2018
Next Scheduled EDR Contact: 07/09/2018
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 02/06/2018
Date Data Arrived at EDR: 02/07/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 37

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 04/16/2018
Next Scheduled EDR Contact: 07/30/2018
Data Release Frequency: Varies

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 01/08/2018
Date Data Arrived at EDR: 03/01/2018
Date Made Active in Reports: 03/30/2018
Number of Days to Update: 29

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 02/28/2018
Next Scheduled EDR Contact: 06/18/2018
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA Facility List

Cupa facilities

Date of Government Version: 01/26/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 47

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 02/01/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA Facility List

Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/19/2018
Number of Days to Update: 53

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 04/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

TULARE COUNTY:

CUPA Facility List
Cupa program facilities

Date of Government Version: 03/19/2018
Date Data Arrived at EDR: 03/22/2018
Date Made Active in Reports: 04/17/2018
Number of Days to Update: 26

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 03/06/2018
Next Scheduled EDR Contact: 05/21/2018
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/16/2018
Number of Days to Update: 50

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 04/18/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 12/26/2017
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 48

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 04/23/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/29/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 02/08/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: Quarterly

Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 12/26/2017
Date Data Arrived at EDR: 01/25/2018
Date Made Active in Reports: 03/20/2018
Number of Days to Update: 54

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 04/23/2018
Next Scheduled EDR Contact: 08/06/2018
Data Release Frequency: Quarterly

Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 02/28/2018
Date Data Arrived at EDR: 03/14/2018
Date Made Active in Reports: 03/30/2018
Number of Days to Update: 16
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 03/14/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 01/02/2018
Date Data Arrived at EDR: 01/09/2018
Date Made Active in Reports: 01/19/2018
Number of Days to Update: 10
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 03/29/2018
Next Scheduled EDR Contact: 07/16/2018
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 02/01/2018
Date Data Arrived at EDR: 02/02/2018
Date Made Active in Reports: 03/21/2018
Number of Days to Update: 47
Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 04/25/2018
Next Scheduled EDR Contact: 08/13/2018
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 01/03/2018
Date Data Arrived at EDR: 02/14/2018
Date Made Active in Reports: 03/22/2018
Number of Days to Update: 36
Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 02/14/2018
Next Scheduled EDR Contact: 05/28/2018
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/11/2017
Date Made Active in Reports: 07/27/2017
Number of Days to Update: 107
Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 04/23/2018
Next Scheduled EDR Contact: 07/23/2018
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 01/31/2018
Date Made Active in Reports: 03/09/2018
Number of Days to Update: 37

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 01/31/2018
Next Scheduled EDR Contact: 05/14/2018
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 07/25/2017
Date Made Active in Reports: 09/25/2017
Number of Days to Update: 62

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 04/12/2018
Next Scheduled EDR Contact: 07/30/2018
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 02/23/2018
Date Made Active in Reports: 04/09/2018
Number of Days to Update: 45

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 02/21/2018
Next Scheduled EDR Contact: 06/04/2018
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 04/13/2017
Date Made Active in Reports: 07/14/2017
Number of Days to Update: 92

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/08/2018
Next Scheduled EDR Contact: 06/25/2018
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.
Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.
Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

AMCP - SOUTHERN PARCEL
1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

TARGET PROPERTY COORDINATES

Latitude (North):	34.024383 - 34° 1' 27.78''
Longitude (West):	117.384086 - 117° 23' 2.71''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	464539.7
UTM Y (Meters):	3764731.5
Elevation:	982 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5619058 FONTANA, CA
Version Date:	2012
Northeast Map:	5620416 SAN BERNARDINO SOUTH, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

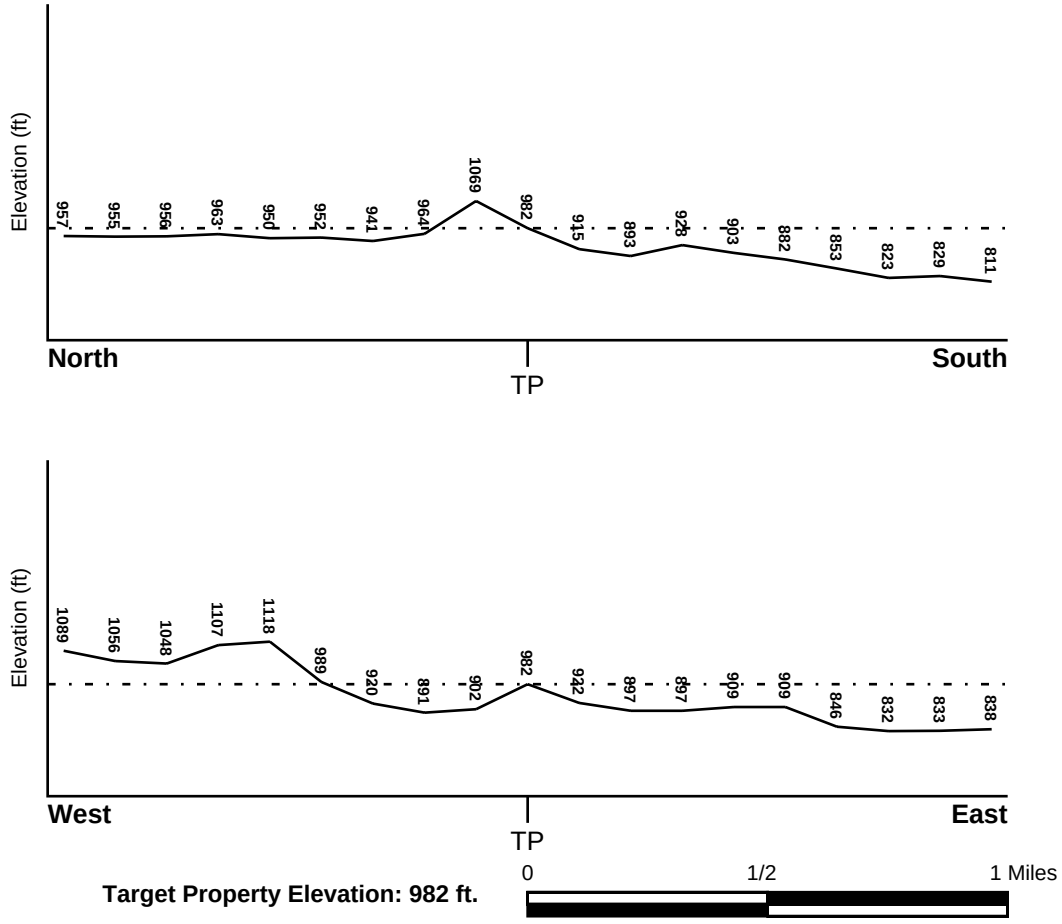
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06065C0045G	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06065C0065G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
FONTANA	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Location Relative to TP:	1/4 - 1/2 Mile WNW
Site Name:	Riverside Cement Co Crestmore Plt
Site EPA ID Number:	CAD063844443
Groundwater Flow Direction:	SW ON A REGIONAL BASIS.
Measured Depth to Water:	not available, but a well 2,000 feet east of the site had a water level of 800 feet above mean sea level.
Hydraulic Connection:	Information is not available about the hydraulic connection between aquifer(s) underlying the site.
Sole Source Aquifer:	No information about a sole source aquifer is available
Data Quality:	Information is inferred in the CERCLIS investigation report(s)

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW

* ©1996 Site--specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
1	1/4 - 1/2 Mile WNW	Varies
1G	1/4 - 1/2 Mile WNW	Varies

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

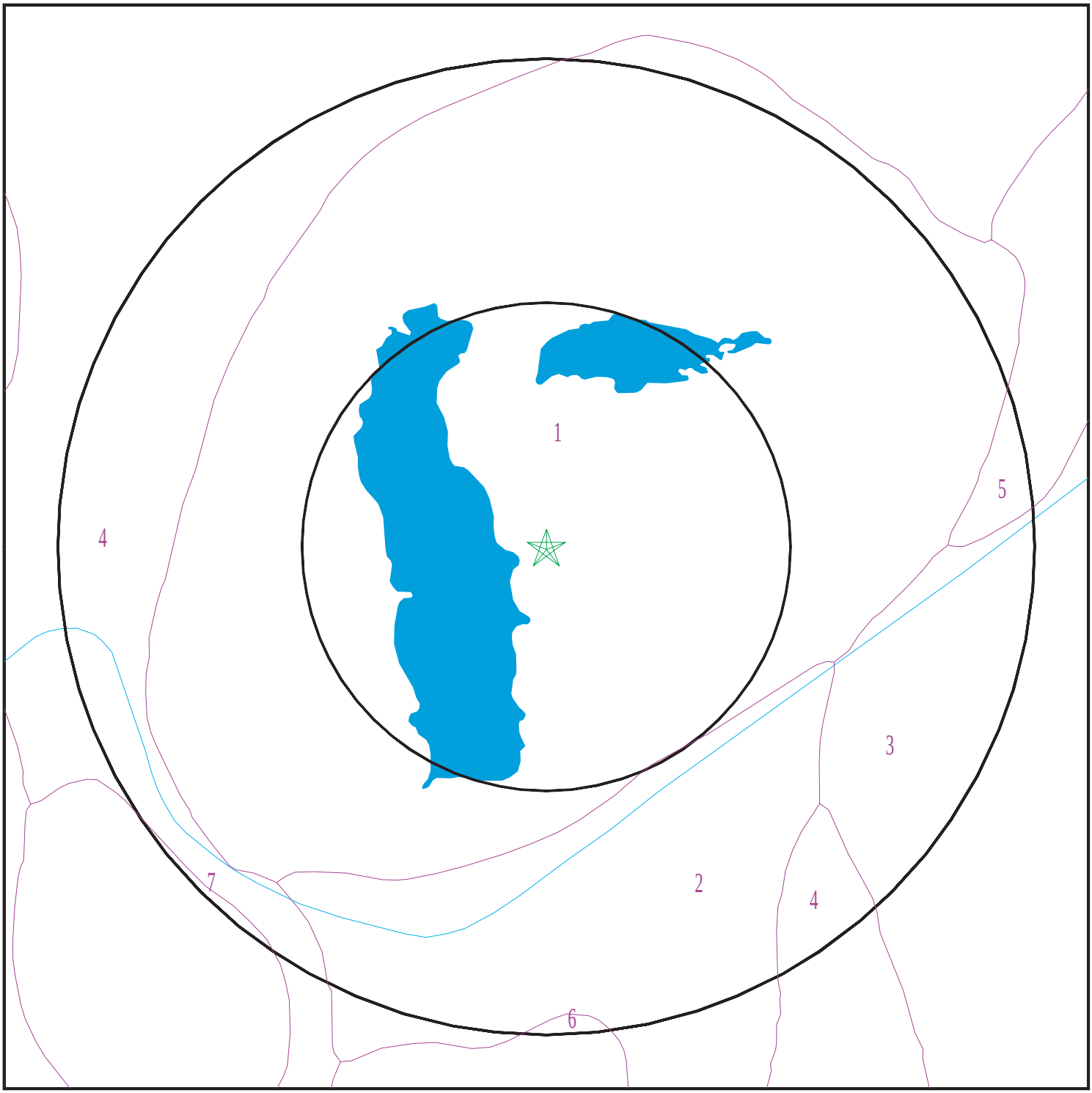
Era:	Paleozoic
System:	Pennsylvanian
Series:	Upper Paleozoic
Code:	uPze *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Eugeosynclinal Deposits

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5273221.2s



SITE NAME:	AMCP - Southern Parcel	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Rachel Prohoroff
LAT/LONG:	34.024383 / 117.384086	INQUIRY #:	5273221.2s
		DATE:	April 27, 2018 7:12 am

G-3888

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: QUARRIES

Soil Surface Texture:
Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

Soil Map ID: 2

Soil Component Name: GREENFIELD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
2	25 inches	42 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
3	42 inches	59 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
4	59 inches	72 inches	stratified loamy sand to sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.6

Soil Map ID: 3

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 5.6
2	14 inches	22 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	22 inches	68 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

Soil Map ID: 4

Soil Component Name: DELHI

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
2	9 inches	48 inches	sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
3	48 inches	59 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1

Soil Map ID: 5

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 5.6
2	14 inches	22 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	22 inches	68 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

Soil Map ID: 6

Soil Component Name: GREENFIELD

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	25 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
2	25 inches	42 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
3	42 inches	59 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1

Soil Map ID: 7

Soil Component Name: Gravel pits

Soil Surface Texture: very gravelly sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	5 inches	very gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILIS, Gravels, Clean Gravels, Well-graded gravel.	Max: 141 Min: 42	Max: Min:
2	5 inches	59 inches	very gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel.	Max: 141 Min: 42	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
3	USGS40000139843	1/2 - 1 Mile ESE
D11	USGS40000139838	1/2 - 1 Mile ESE
D13	USGS40000139841	1/2 - 1 Mile ESE
D14	USGS40000139840	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

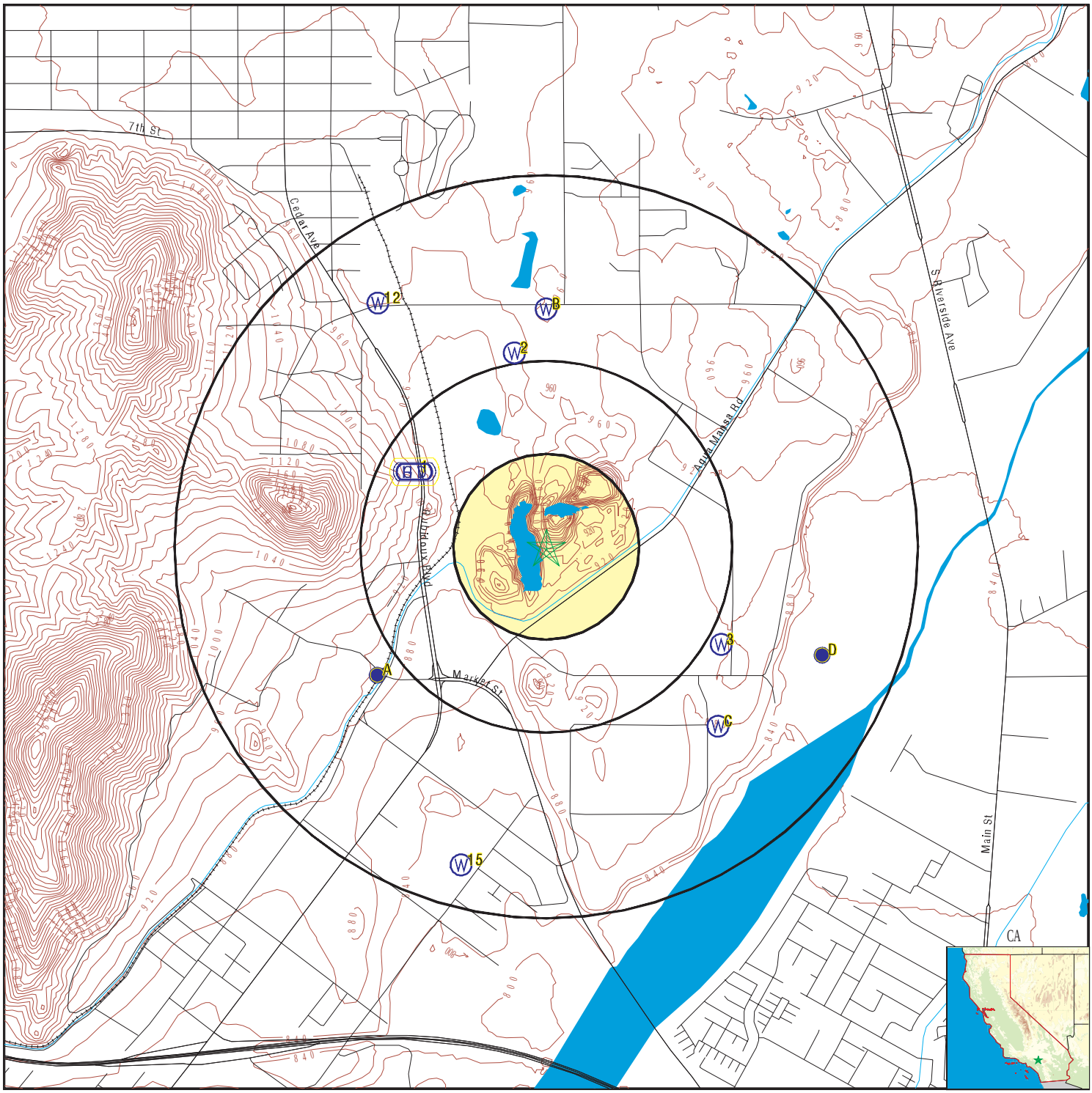
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
2	2492	1/2 - 1 Mile North
A5	2499	1/2 - 1 Mile SW
B6	18724	1/2 - 1 Mile North
B7	CADW60000003294	1/2 - 1 Mile North
C8	2504	1/2 - 1 Mile SE
C9	2503	1/2 - 1 Mile SE
D10	2487	1/2 - 1 Mile ESE
12	2493	1/2 - 1 Mile NW
15	2500	1/2 - 1 Mile SSW

PHYSICAL SETTING SOURCE MAP - 5273221.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	AMCP - Southern Parcel	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Rachel Prohoroff
LAT/LONG:	34.024383 / 117.384086	INQUIRY #:	5273221.2s
		DATE:	April 27, 2018 7:12 am

G-3897

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

			Database	EDR ID Number
1 **WNW** **1/4 - 1/2 Mile** **Lower**	Site ID:	083301366T	**AQUIFLOW**	**50768**
	Groundwater Flow:	Varies		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	80		
	Date:	07/07/1995		

2
North
1/2 - 1 Mile
Lower

CA WELLS **2492**

Water System Information:

Prime Station Code:	02S/05W-03B01 S	User ID:	33C
FRDS Number:	3301551001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340155.0 1172305.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01 DOMESTIC - MAIN		
System Number:	3301551		
System Name:	RIVERSIDE CEMENT CO		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		
Sample Collected:	16-SEP-09	Findings:	4.98 PCI/L
Chemical:	GROSS ALPHA		

3
ESE
1/2 - 1 Mile
Lower

FED USGS **USGS40000139843**

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340114117223001		
Monloc name:	002S005W02P001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0205696
Longitude:	-117.3758787	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	100
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

A4
SW
1/2 - 1 Mile
Lower

Site ID:	083300480T
Groundwater Flow:	Not Reported
Shallow Water Depth:	Not Reported
Deep Water Depth:	Not Reported
Average Water Depth:	50
Date:	09/18/1991

AQUIFLOW **67279**

A5
SW
1/2 - 1 Mile
Lower

CA WELLS **2499**

Water System Information:

Prime Station Code:	02S/05W-10C01 S	User ID:	33C
FRDS Number:	3301109001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340110.0 1172329.0	Precision:	100 Feet (one Second)
Source Name:	WELL 02 INDUSTRIAL		
System Number:	3301109		
System Name:	CERTAINTEED PRODUCTS		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

B6
North
1/2 - 1 Mile
Lower

CA WELLS **18724**

Water System Information:

Prime Station Code:	3610004-031	User ID:	TAN
FRDS Number:	3610004031	County:	San Beernardino
District Number:	13	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340200.0 1172300.0	Precision:	Undefined
Source Name:	WELL 41		
System Number:	3610004		
System Name:	WEST SAN BERNARDINO CWD		
Organization That Operates System:	PO BOX 920 RIALTO, CA 92376-0920		
Pop Served:	41454	Connections:	15052
Area Served:	RIALTO-BLOOMINGTON		

Sample Collected:	26-JAN-12	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-MAR-12	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-MAR-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	10-APR-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	23-MAY-12	Findings:	1.1 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-JUN-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-JUN-12	Findings:	14. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-JUL-12	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-SEP-12	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	26-SEP-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	30-OCT-12	Findings:	0.6 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	28-NOV-12	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	13-DEC-12	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	13-DEC-12	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	22-FEB-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	21-MAR-13	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-MAR-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-APR-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	05-JUN-13	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	31-JUL-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	15-AUG-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	23-SEP-13	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	23-SEP-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-OCT-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	26-NOV-13	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	13-DEC-13	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	13-DEC-13	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	15-JAN-14	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-FEB-14	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	20-MAR-14	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-MAR-14	Findings:	1. NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-APR-14	Findings:	280. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	24-APR-14	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-APR-14	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	21-MAY-14	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-MAY-14	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	04-JUN-14	Findings:	20. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	04-JUN-14	Findings:	410. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	04-JUN-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	04-JUN-14	Findings:	160. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	04-JUN-14	Findings:	190. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	04-JUN-14	Findings:	170. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	04-JUN-14	Findings:	51. MG/L
Chemical:	CALCIUM		
Sample Collected:	04-JUN-14	Findings:	11. MG/L
Chemical:	MAGNESIUM		

Sample Collected:	04-JUN-14	Findings:	15. MG/L
Chemical:	SODIUM		
Sample Collected:	04-JUN-14	Findings:	1.8 MG/L
Chemical:	POTASSIUM		
Sample Collected:	04-JUN-14	Findings:	11. MG/L
Chemical:	CHLORIDE		
Sample Collected:	04-JUN-14	Findings:	28. MG/L
Chemical:	SULFATE		
Sample Collected:	04-JUN-14	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	04-JUN-14	Findings:	2.1 UG/L
Chemical:	ARSENIC		
Sample Collected:	04-JUN-14	Findings:	6.2 UG/L
Chemical:	VANADIUM		
Sample Collected:	04-JUN-14	Findings:	250. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	04-JUN-14	Findings:	0.84
Chemical:	LANGELIER INDEX @ 60 C		
Sample Collected:	04-JUN-14	Findings:	0.23
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	04-JUN-14	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-JUN-14	Findings:	12.04
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	04-JUN-14	Findings:	3700. MG/L
Chemical:	NITRATE + NITRITE (AS N)		
Sample Collected:	17-JUL-14	Findings:	270. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	17-JUL-14	Findings:	19. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	17-JUL-14	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	08-AUG-14	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-AUG-14	Findings:	0.8 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	25-SEP-14	Findings:	2.7 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	25-SEP-14	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-DEC-14	Findings:	3.1 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	08-DEC-14	Findings:	19. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	08-DEC-14	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	29-JAN-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	29-JAN-15	Findings:	0.6 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	24-FEB-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-FEB-15	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	17-MAR-15	Findings:	2.6 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	17-MAR-15	Findings:	1.5 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	17-MAR-15	Findings:	1.4 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	17-MAR-15	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	17-MAR-15	Findings:	0.61 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	17-MAR-15	Findings:	1.4 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	17-MAR-15	Findings:	0.88 PCI/L
Chemical:	URANIUM MDA95		
Sample Collected:	17-MAR-15	Findings:	0.643 PCI/L
Chemical:	RADIUM 228 COUNTING ERROR		
Sample Collected:	17-MAR-15	Findings:	0.2 PCI/L
Chemical:	RADIUM 228 MDA95		
Sample Collected:	17-MAR-15	Findings:	9.2e-002 PCI/L
Chemical:	RA-226 OR TOTAL RA BY 903.0 C.E.		
Sample Collected:	17-MAR-15	Findings:	0.47 PCI/L
Chemical:	RADIUM, TOTAL, MDA95-NTNC ONLY, BY 903.0		
Sample Collected:	22-APR-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	22-APR-15	Findings:	0.5 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	20-MAY-15	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-MAY-15	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	22-JUN-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	22-JUN-15	Findings:	0.3 NTU
Chemical:	TURBIDITY, LABORATORY		

Sample Collected:	22-JUL-15	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-AUG-15	Findings:	18. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-AUG-15	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	16-SEP-15	Findings:	2.6 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	16-SEP-15	Findings:	15. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	20-OCT-15	Findings:	17. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-NOV-15	Findings:	16. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-NOV-15	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	06-JAN-16	Findings:	3.7 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	06-JAN-16	Findings:	2.7 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	03-FEB-16	Findings:	3.8 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	28-MAR-16	Findings:	4.6 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	28-MAR-16	Findings:	1.3 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	12-APR-16	Findings:	4.2 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-APR-16	Findings:	3. UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	12-APR-16	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	03-MAY-16	Findings:	3.9 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	22-JUN-16	Findings:	250. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	22-JUN-16	Findings:	4.1 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	20-JUL-16	Findings:	3.9 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	20-JUL-16	Findings:	3. UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	20-JUL-16	Findings:	250. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		

Sample Collected:	02-AUG-16	Findings:	4.3 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	02-AUG-16	Findings:	260. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06-SEP-16	Findings:	4.3 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	06-SEP-16	Findings:	270. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06-SEP-16	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	10-OCT-16	Findings:	4.4 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	10-OCT-16	Findings:	0.4 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	15-NOV-16	Findings:	4.3 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	15-NOV-16	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	12-DEC-16	Findings:	4.5 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	17-JAN-17	Findings:	4.6 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	21-FEB-17	Findings:	4.8 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	22-MAR-17	Findings:	4.8 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	22-MAR-17	Findings:	0.2 NTU
Chemical:	TURBIDITY, LABORATORY		
Sample Collected:	19-APR-17	Findings:	4.4 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	16-MAY-17	Findings:	4.3 MG/L
Chemical:	NITRATE (AS N)		

B7
North
1/2 - 1 Mile
Lower

CA WELLS **CADW60000003294**

Objectid:	3294
Latitude:	34.034
Longitude:	-117.384
Site code:	340340N1173840W001
State well numbe:	03S03W03A001S
Local well name:	'El Rivino'
Well use id:	1
Well use descrip:	Observation
County id:	33
County name:	Riverside

Basin code: '8-2.03'
Basin desc: Riverside-Arlington
Dwr region id: 80238
Dwr region: Southern Region Office
Site id: CADW60000003294

C8
SE **CA WELLS** **2504**
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	02S/05W-11C03 S	User ID:	WAT
FRDS Number:	3310044006	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340103.0 1172230.0	Precision:	100 Feet (one Second)
Source Name:	WELL 06 - NEW SKOTTY		
System Number:	3310044		
System Name:	Rubidoux Community SD		
Organization That Operates System:			
	P.O. Box 3098		
	Rubidoux, CA 92519		
Pop Served:	25000	Connections:	6554
Area Served:	RUBIDOUX		
Sample Collected:	16-MAY-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	16-MAY-12	Findings:	59. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	16-MAY-12	Findings:	8.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	07-JUN-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	07-JUN-12	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-JUN-12	Findings:	6.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	13-JUN-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	13-JUN-12	Findings:	61. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	13-JUN-12	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-JUL-12	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	11-JUL-12	Findings:	59. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	11-JUL-12	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	07-AUG-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	07-AUG-12	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-AUG-12	Findings:	5.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	21-AUG-12	Findings:	720. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	21-AUG-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	21-AUG-12	Findings:	210. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	21-AUG-12	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	21-AUG-12	Findings:	290. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	21-AUG-12	Findings:	90. MG/L
Chemical:	CALCIUM		
Sample Collected:	21-AUG-12	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	21-AUG-12	Findings:	32. MG/L
Chemical:	SODIUM		
Sample Collected:	21-AUG-12	Findings:	3.2 MG/L
Chemical:	POTASSIUM		
Sample Collected:	21-AUG-12	Findings:	25. MG/L
Chemical:	CHLORIDE		
Sample Collected:	21-AUG-12	Findings:	78. MG/L
Chemical:	SULFATE		
Sample Collected:	21-AUG-12	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	21-AUG-12	Findings:	460. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	21-AUG-12	Findings:	0.5
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	21-AUG-12	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-AUG-12	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	21-AUG-12	Findings:	7.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	24-SEP-12	Findings:	7.5
Chemical:	PH, LABORATORY		

Sample Collected:	24-SEP-12	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	24-SEP-12	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-DEC-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	11-DEC-12	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11-DEC-12	Findings:	6.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	23-MAY-13	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	23-MAY-13	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-MAY-13	Findings:	6. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	21-JUN-13	Findings:	7.8
Chemical:	PH, LABORATORY		
Sample Collected:	21-JUN-13	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-JUN-13	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	17-JUL-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	17-JUL-13	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	17-JUL-13	Findings:	5.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	06-AUG-13	Findings:	740. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	06-AUG-13	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	06-AUG-13	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	06-AUG-13	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	06-AUG-13	Findings:	310. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	06-AUG-13	Findings:	97. MG/L
Chemical:	CALCIUM		
Sample Collected:	06-AUG-13	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	06-AUG-13	Findings:	34. MG/L
Chemical:	SODIUM		

Sample Collected:	06-AUG-13	Findings:	3.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	06-AUG-13	Findings:	29. MG/L
Chemical:	CHLORIDE		
Sample Collected:	06-AUG-13	Findings:	91. MG/L
Chemical:	SULFATE		
Sample Collected:	06-AUG-13	Findings:	0.4 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	06-AUG-13	Findings:	510. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	06-AUG-13	Findings:	0.4
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	06-AUG-13	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-AUG-13	Findings:	12.2
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	06-AUG-13	Findings:	6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	13-MAY-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	13-MAY-14	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	15-MAY-14	Findings:	7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	18-JUN-14	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	18-JUN-14	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-JUN-14	Findings:	6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-JUL-14	Findings:	7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-AUG-14	Findings:	720. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	05-AUG-14	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	05-AUG-14	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	05-AUG-14	Findings:	240. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	05-AUG-14	Findings:	310. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	05-AUG-14	Findings:	95. MG/L
Chemical:	CALCIUM		

Sample Collected:	05-AUG-14	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	05-AUG-14	Findings:	32. MG/L
Chemical:	SODIUM		
Sample Collected:	05-AUG-14	Findings:	3. MG/L
Chemical:	POTASSIUM		
Sample Collected:	05-AUG-14	Findings:	25. MG/L
Chemical:	CHLORIDE		
Sample Collected:	05-AUG-14	Findings:	86. MG/L
Chemical:	SULFATE		
Sample Collected:	05-AUG-14	Findings:	0.2 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	05-AUG-14	Findings:	4.7 UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	05-AUG-14	Findings:	470. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	05-AUG-14	Findings:	0.2
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	05-AUG-14	Findings:	49. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-AUG-14	Findings:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	05-AUG-14	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-SEP-14	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	12-SEP-14	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-SEP-14	Findings:	6.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-OCT-14	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-OCT-14	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-14	Findings:	6.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	09-OCT-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	09-OCT-14	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09-OCT-14	Findings:	6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	29-DEC-14	Findings:	7.9
Chemical:	PH, LABORATORY		

Sample Collected:	29-DEC-14	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-JAN-15	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	06-JAN-15	Findings:	53. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-JAN-15	Findings:	6.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-FEB-15	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	02-FEB-15	Findings:	53. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02-FEB-15	Findings:	7. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-MAR-15	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	05-MAR-15	Findings:	52. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-MAR-15	Findings:	6.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	24-MAR-15	Findings:	5.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-APR-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	01-APR-15	Findings:	48. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-APR-15	Findings:	4.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	23-JUN-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	23-JUN-15	Findings:	50. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-JUN-15	Findings:	5. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	08-JUL-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	08-JUL-15	Findings:	49. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-JUL-15	Findings:	6.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	19-AUG-15	Findings:	25. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	19-AUG-15	Findings:	760. US
Chemical:	SPECIFIC CONDUCTANCE		

Sample Collected:	19-AUG-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	19-AUG-15	Findings:	210. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	19-AUG-15	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	19-AUG-15	Findings:	310. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	19-AUG-15	Findings:	96. MG/L
Chemical:	CALCIUM		
Sample Collected:	19-AUG-15	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	19-AUG-15	Findings:	33. MG/L
Chemical:	SODIUM		
Sample Collected:	19-AUG-15	Findings:	3.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	19-AUG-15	Findings:	25. MG/L
Chemical:	CHLORIDE		
Sample Collected:	19-AUG-15	Findings:	78. MG/L
Chemical:	SULFATE		
Sample Collected:	19-AUG-15	Findings:	0.2 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	19-AUG-15	Findings:	490. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	19-AUG-15	Findings:	0.52
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	19-AUG-15	Findings:	48. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	19-AUG-15	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	19-AUG-15	Findings:	5. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	23-DEC-15	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	23-DEC-15	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-JAN-16	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	12-JAN-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-JAN-16	Findings:	5.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	18-MAR-16	Findings:	7.4
Chemical:	PH, LABORATORY		

Sample Collected:	18-MAR-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	18-MAR-16	Findings:	5.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-APR-16	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	05-APR-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	05-APR-16	Findings:	5.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	10-MAY-16	Findings:	7.3
Chemical:	PH, LABORATORY		
Sample Collected:	10-MAY-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	10-MAY-16	Findings:	5.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-JUN-16	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUN-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-JUN-16	Findings:	5. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	22-JUN-16	Findings:	4.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-JUL-16	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	12-JUL-16	Findings:	10. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-JUL-16	Findings:	4.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-AUG-16	Findings:	8.4
Chemical:	PH, LABORATORY		
Sample Collected:	02-AUG-16	Findings:	9.9 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	09-AUG-16	Findings:	800. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09-AUG-16	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	09-AUG-16	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	09-AUG-16	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09-AUG-16	Findings:	9.8 MG/L
Chemical:	NITRATE (AS N)		

Sample Collected:	09-AUG-16	Findings:	310. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	09-AUG-16	Findings:	97. MG/L
Chemical:	CALCIUM		
Sample Collected:	09-AUG-16	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09-AUG-16	Findings:	35. MG/L
Chemical:	SODIUM		
Sample Collected:	09-AUG-16	Findings:	3.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09-AUG-16	Findings:	39. MG/L
Chemical:	CHLORIDE		
Sample Collected:	09-AUG-16	Findings:	87. MG/L
Chemical:	SULFATE		
Sample Collected:	09-AUG-16	Findings:	0.2 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09-AUG-16	Findings:	500. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09-AUG-16	Findings:	0.5
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	09-AUG-16	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	09-AUG-16	Findings:	4.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	16-AUG-16	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	16-AUG-16	Findings:	9.6 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-SEP-16	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-SEP-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-SEP-16	Findings:	500. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	13-SEP-16	Findings:	6.e-003 UG/L
Chemical:	1,2,3-TRICHLOROPROPANE		
Sample Collected:	03-NOV-16	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	03-NOV-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	14-MAR-17	Findings:	780. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	14-MAR-17	Findings:	7.6
Chemical:	PH, LABORATORY		

Sample Collected:	14-MAR-17	Findings:	10. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	29-MAR-17	Findings:	5.01 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	29-MAR-17	Findings:	1.82 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	29-MAR-17	Findings:	6.85 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	29-MAR-17	Findings:	2.5 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	29-MAR-17	Findings:	1.6 PCI/L
Chemical:	GROSS ALPHA MDA95		
Sample Collected:	29-MAR-17	Findings:	0.627 PCI/L
Chemical:	URANIUM MDA95		
Sample Collected:	27-APR-17	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	27-APR-17	Findings:	9.3 MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	02-MAY-17	Findings:	8.
Chemical:	PH, LABORATORY		
Sample Collected:	02-MAY-17	Findings:	10. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-JUN-17	Findings:	8.1
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUN-17	Findings:	9.8 MG/L
Chemical:	NITRATE (AS N)		

C9
SE **CA WELLS** **2503**
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	02S/05W-11C02 S	User ID:	WAT
FRDS Number:	3310044004	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340102.0 1172231.0	Precision:	100 Feet (one Second)
Source Name:	WELL 04 - OLD SKOTTY		
System Number:	3310044		
System Name:	Rubidoux Community SD		
Organization That Operates System:			
	P.O. Box 3098		
	Rubidoux, CA 92519		
Pop Served:	25000	Connections:	6554
Area Served:	RUBIDOUX		
Sample Collected:	01-JUN-17	Findings:	8.1
Chemical:	PH, LABORATORY		

Sample Collected:	01-JUN-17	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-JUN-17	Findings:	5.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	04-APR-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	04-APR-12	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	08-MAY-12	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	08-MAY-12	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-JUN-12	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUN-12	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	06-JUN-12	Findings:	8.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-JUL-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03-JUL-12	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-JUL-12	Findings:	7.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-AUG-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-AUG-12	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-AUG-12	Findings:	8.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	21-AUG-12	Findings:	690. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	21-AUG-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	21-AUG-12	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	21-AUG-12	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	21-AUG-12	Findings:	280. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	21-AUG-12	Findings:	87. MG/L
Chemical:	CALCIUM		
Sample Collected:	21-AUG-12	Findings:	15. MG/L
Chemical:	MAGNESIUM		

Sample Collected:	21-AUG-12	Findings:	31. MG/L
Chemical:	SODIUM		
Sample Collected:	21-AUG-12	Findings:	2.9 MG/L
Chemical:	POTASSIUM		
Sample Collected:	21-AUG-12	Findings:	18. MG/L
Chemical:	CHLORIDE		
Sample Collected:	21-AUG-12	Findings:	72. MG/L
Chemical:	SULFATE		
Sample Collected:	21-AUG-12	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	21-AUG-12	Findings:	430. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	21-AUG-12	Findings:	0.47
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	21-AUG-12	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	21-AUG-12	Findings:	12.2
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	21-AUG-12	Findings:	8.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	04-SEP-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	04-SEP-12	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-SEP-12	Findings:	7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-OCT-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-OCT-12	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-12	Findings:	6. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-DEC-12	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	11-DEC-12	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	11-DEC-12	Findings:	6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	25-APR-13	Findings:	8.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-MAY-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-MAY-13	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	23-MAY-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	23-MAY-13	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	23-MAY-13	Findings:	6.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-JUN-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	05-JUN-13	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	12-JUN-13	Findings:	7.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	03-JUL-13	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	03-JUL-13	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-JUL-13	Findings:	5. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-AUG-13	Findings:	730. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	01-AUG-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-AUG-13	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	01-AUG-13	Findings:	240. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	01-AUG-13	Findings:	300. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	01-AUG-13	Findings:	94. MG/L
Chemical:	CALCIUM		
Sample Collected:	01-AUG-13	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	01-AUG-13	Findings:	33. MG/L
Chemical:	SODIUM		
Sample Collected:	01-AUG-13	Findings:	3.1 MG/L
Chemical:	POTASSIUM		
Sample Collected:	01-AUG-13	Findings:	23. MG/L
Chemical:	CHLORIDE		
Sample Collected:	01-AUG-13	Findings:	77. MG/L
Chemical:	SULFATE		
Sample Collected:	01-AUG-13	Findings:	0.4 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	01-AUG-13	Findings:	460. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		

Sample Collected:	01-AUG-13	Findings:	0.24
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	01-AUG-13	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-AUG-13	Findings:	12.
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	01-AUG-13	Findings:	7.3 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	06-AUG-13	Findings:	7.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	20-AUG-13	Findings:	7.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	04-SEP-13	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	04-SEP-13	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	04-SEP-13	Findings:	7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-OCT-13	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-OCT-13	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-13	Findings:	8.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	14-MAY-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	14-MAY-14	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	15-MAY-14	Findings:	7.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	11-JUN-14	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	11-JUN-14	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-JUN-14	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	18-JUN-14	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	18-JUN-14	Findings:	7.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-JUL-14	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	02-JUL-14	Findings:	450. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		

Sample Collected:	02-JUL-14	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-JUL-14	Findings:	8. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-AUG-14	Findings:	700. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	05-AUG-14	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	05-AUG-14	Findings:	200. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	05-AUG-14	Findings:	240. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	05-AUG-14	Findings:	300. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	05-AUG-14	Findings:	92. MG/L
Chemical:	CALCIUM		
Sample Collected:	05-AUG-14	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	05-AUG-14	Findings:	31. MG/L
Chemical:	SODIUM		
Sample Collected:	05-AUG-14	Findings:	3. MG/L
Chemical:	POTASSIUM		
Sample Collected:	05-AUG-14	Findings:	23. MG/L
Chemical:	CHLORIDE		
Sample Collected:	05-AUG-14	Findings:	81. MG/L
Chemical:	SULFATE		
Sample Collected:	05-AUG-14	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	05-AUG-14	Findings:	4. UG/L
Chemical:	CHROMIUM, HEXAVALENT		
Sample Collected:	05-AUG-14	Findings:	500. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	05-AUG-14	Findings:	0.48
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	05-AUG-14	Findings:	50. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-AUG-14	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	05-AUG-14	Findings:	6.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-SEP-14	Findings:	7.8
Chemical:	PH, LABORATORY		
Sample Collected:	12-SEP-14	Findings:	57. MG/L
Chemical:	NITRATE (AS NO3)		

Sample Collected:	12-SEP-14	Findings:	6.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	09-OCT-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	09-OCT-14	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	09-OCT-14	Findings:	7.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	29-DEC-14	Findings:	7.7
Chemical:	PH, LABORATORY		
Sample Collected:	29-DEC-14	Findings:	59. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-JAN-15	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	07-JAN-15	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	07-JAN-15	Findings:	8.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-FEB-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	02-FEB-15	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02-FEB-15	Findings:	4.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-MAR-15	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	02-MAR-15	Findings:	56. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	02-MAR-15	Findings:	6.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	24-MAR-15	Findings:	5. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-APR-15	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-APR-15	Findings:	53. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-APR-15	Findings:	6. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-MAY-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	01-MAY-15	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-MAY-15	Findings:	5.9 UG/L
Chemical:	PERCHLORATE		

Sample Collected:	03-JUN-15	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03-JUN-15	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	03-JUN-15	Findings:	6.1 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-JUL-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUL-15	Findings:	50. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-JUL-15	Findings:	4.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-AUG-15	Findings:	7.2
Chemical:	PH, LABORATORY		
Sample Collected:	05-AUG-15	Findings:	54. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	05-AUG-15	Findings:	4.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	19-AUG-15	Findings:	25. C
Chemical:	SOURCE TEMPERATURE C		
Sample Collected:	19-AUG-15	Findings:	730. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	19-AUG-15	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	19-AUG-15	Findings:	210. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	19-AUG-15	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	19-AUG-15	Findings:	300. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		
Sample Collected:	19-AUG-15	Findings:	230. MG/L
Chemical:	CALCIUM		
Sample Collected:	19-AUG-15	Findings:	16. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	19-AUG-15	Findings:	31. MG/L
Chemical:	SODIUM		
Sample Collected:	19-AUG-15	Findings:	2.9 MG/L
Chemical:	POTASSIUM		
Sample Collected:	19-AUG-15	Findings:	32. MG/L
Chemical:	CHLORIDE		
Sample Collected:	19-AUG-15	Findings:	87. MG/L
Chemical:	SULFATE		
Sample Collected:	19-AUG-15	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		

Sample Collected:	19-AUG-15	Findings:	460. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	19-AUG-15	Findings:	0.41
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	19-AUG-15	Findings:	50. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	19-AUG-15	Findings:	12.2
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	19-AUG-15	Findings:	5.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-SEP-15	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	01-SEP-15	Findings:	55. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-SEP-15	Findings:	5.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-OCT-15	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	01-OCT-15	Findings:	58. MG/L
Chemical:	NITRATE (AS NO3)		
Sample Collected:	01-OCT-15	Findings:	5.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	23-DEC-15	Findings:	7.3
Chemical:	PH, LABORATORY		
Sample Collected:	23-DEC-15	Findings:	13. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-JAN-16	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	12-JAN-16	Findings:	13. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	12-JAN-16	Findings:	6.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-MAR-16	Findings:	7.3
Chemical:	PH, LABORATORY		
Sample Collected:	02-MAR-16	Findings:	15. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	02-MAR-16	Findings:	5.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	05-APR-16	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	05-APR-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	05-APR-16	Findings:	5.8 UG/L
Chemical:	PERCHLORATE		

Sample Collected:	04-MAY-16	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	04-MAY-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	04-MAY-16	Findings:	4.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	01-JUN-16	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	01-JUN-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-JUN-16	Findings:	7.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	08-JUN-16	Findings:	6. UG/L
Chemical:	PERCHLORATE		
Sample Collected:	15-JUN-16	Findings:	6.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	22-JUN-16	Findings:	5.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	06-JUL-16	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	06-JUL-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	06-JUL-16	Findings:	5.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	12-JUL-16	Findings:	5.4 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-AUG-16	Findings:	8.5
Chemical:	PH, LABORATORY		
Sample Collected:	02-AUG-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	02-AUG-16	Findings:	5.7 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	09-AUG-16	Findings:	740. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	09-AUG-16	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	09-AUG-16	Findings:	210. MG/L
Chemical:	ALKALINITY (TOTAL) AS CACO3		
Sample Collected:	09-AUG-16	Findings:	250. MG/L
Chemical:	BICARBONATE ALKALINITY		
Sample Collected:	09-AUG-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	09-AUG-16	Findings:	290. MG/L
Chemical:	HARDNESS (TOTAL) AS CACO3		

Sample Collected:	09-AUG-16	Findings:	91. MG/L
Chemical:	CALCIUM		
Sample Collected:	09-AUG-16	Findings:	15. MG/L
Chemical:	MAGNESIUM		
Sample Collected:	09-AUG-16	Findings:	31. MG/L
Chemical:	SODIUM		
Sample Collected:	09-AUG-16	Findings:	2.9 MG/L
Chemical:	POTASSIUM		
Sample Collected:	09-AUG-16	Findings:	24. MG/L
Chemical:	CHLORIDE		
Sample Collected:	09-AUG-16	Findings:	75. MG/L
Chemical:	SULFATE		
Sample Collected:	09-AUG-16	Findings:	0.3 MG/L
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)		
Sample Collected:	09-AUG-16	Findings:	470. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	09-AUG-16	Findings:	0.5
Chemical:	LANGELIER INDEX AT SOURCE TEMP.		
Sample Collected:	09-AUG-16	Findings:	12.3
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)		
Sample Collected:	09-AUG-16	Findings:	6.6 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	16-AUG-16	Findings:	7.8
Chemical:	PH, LABORATORY		
Sample Collected:	16-AUG-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-SEP-16	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	01-SEP-16	Findings:	13. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	01-SEP-16	Findings:	460. MG/L
Chemical:	TOTAL DISSOLVED SOLIDS		
Sample Collected:	01-SEP-16	Findings:	6.3 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	13-SEP-16	Findings:	3.e-002 UG/L
Chemical:	1,2,3-TRICHLOROPROPANE		
Sample Collected:	28-SEP-16	Findings:	3.e-002 UG/L
Chemical:	1,2,3-TRICHLOROPROPANE		
Sample Collected:	03-OCT-16	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	03-OCT-16	Findings:	11. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	03-OCT-16	Findings:	4.8 UG/L
Chemical:	PERCHLORATE		

Sample Collected:	03-NOV-16	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	03-NOV-16	Findings:	13. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	03-NOV-16	Findings:	5.5 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	15-DEC-16	Findings:	6.3 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	15-DEC-16	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	15-DEC-16	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	02-FEB-17	Findings:	7.3
Chemical:	PH, LABORATORY		
Sample Collected:	02-FEB-17	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	02-FEB-17	Findings:	5.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	07-MAR-17	Findings:	780. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	07-MAR-17	Findings:	7.6
Chemical:	PH, LABORATORY		
Sample Collected:	07-MAR-17	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	07-MAR-17	Findings:	4.9 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	14-MAR-17	Findings:	780. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	14-MAR-17	Findings:	7.5
Chemical:	PH, LABORATORY		
Sample Collected:	14-MAR-17	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	14-MAR-17	Findings:	4.8 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	29-MAR-17	Findings:	7.14 PCI/L
Chemical:	GROSS ALPHA		
Sample Collected:	29-MAR-17	Findings:	2.15 PCI/L
Chemical:	GROSS ALPHA COUNTING ERROR		
Sample Collected:	29-MAR-17	Findings:	6.11 PCI/L
Chemical:	URANIUM (PCI/L)		
Sample Collected:	29-MAR-17	Findings:	2.13 PCI/L
Chemical:	URANIUM COUNTING ERROR		
Sample Collected:	29-MAR-17	Findings:	1.56 PCI/L
Chemical:	GROSS ALPHA MDA95		

Sample Collected:	29-MAR-17	Findings:	0.519 PCI/L
Chemical:	URANIUM MDA95		
Sample Collected:	04-APR-17	Findings:	760. US
Chemical:	SPECIFIC CONDUCTANCE		
Sample Collected:	04-APR-17	Findings:	7.4
Chemical:	PH, LABORATORY		
Sample Collected:	04-APR-17	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	04-APR-17	Findings:	5.2 UG/L
Chemical:	PERCHLORATE		
Sample Collected:	02-MAY-17	Findings:	8.1
Chemical:	PH, LABORATORY		
Sample Collected:	02-MAY-17	Findings:	12. MG/L
Chemical:	NITRATE (AS N)		
Sample Collected:	02-MAY-17	Findings:	5.6 UG/L
Chemical:	PERCHLORATE		

D10
ESE **CA WELLS** **2487**
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	02S/05W-02Q07 S	User ID:	WAT
FRDS Number:	3310031062	County:	Riverside
District Number:	14	Station Type:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Water Type:	Well/Groundwater	Well Status:	Agricultural/Irrigation Well
Source Lat/Long:	340113.6 1172215.3	Precision:	10 Feet (1/10 Second)
Source Name:	JURUPA WELL 06 - AGRICULTURAL		
System Number:	3310031		
System Name:	Riverside, City of		
Organization That Operates System:			
	3900 MAIN STREET		
	RIVERSIDE, CA 92522		
Pop Served:	245000	Connections:	58586
Area Served:	RIVERSIDE		

D11
ESE **FED USGS** **USGS40000139838**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340111117221501		
Monloc name:	002S005W02Q007S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0197364
Longitude:	-117.3717119	Sourcemap scale:	24000

Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	482
Welldepth units:	ft	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

12
NW **CA WELLS** **2493**
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	02S/05W-03B02 S	User ID:	33C
FRDS Number:	3301173001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340202.0 1172328.0	Precision:	100 Feet (one Second)
Source Name:	WELL 01		
System Number:	3301173		
System Name:	CRESTMORE HEIGHTS MWC		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

D13
ESE **FED USGS** **USGS40000139841**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340113117221102		
Monloc name:	002S005W02R002S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0202919
Longitude:	-117.3706007	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		

Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

D14
ESE **FED USGS** **USGS40000139840**
1/2 - 1 Mile
Lower

Org. Identifier:	USGS-CA		
Formal name:	USGS California Water Science Center		
Monloc Identifier:	USGS-340113117221101		
Monloc name:	002S005W02R001S		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	18070203	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	34.0202919
Longitude:	-117.3706007	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	Not Reported
Vert measure units:	Not Reported	Vertacc measure val:	Not Reported
Vert accmeasure units:	Not Reported		
Vertcollection method:	Not Reported		
Vert coord refsys:	Not Reported	Countrycode:	US
Aquifername:	California Coastal Basin aquifers		
Formation type:	Not Reported		
Aquifer type:	Not Reported		
Construction date:	Not Reported	Welldepth:	Not Reported
Welldepth units:	Not Reported	Wellholedepth:	Not Reported
Wellholedepth units:	Not Reported		

Ground-water levels, Number of Measurements: 0

15
SSW **CA WELLS** **2500**
1/2 - 1 Mile
Lower

Water System Information:

Prime Station Code:	02S/05W-10K06 S	User ID:	33C
FRDS Number:	3301740001	County:	Riverside
District Number:	63	Station Type:	WELL/AMBNT/MUN/INTAKE
Water Type:	Well/Groundwater	Well Status:	Active Raw
Source Lat/Long:	340043.0 1172314.0	Precision:	1,000 Feet (10 Seconds)
Source Name:	WELL 01		
System Number:	3301740		
System Name:	WEST RIVERSIDE MWC		
Organization That Operates System:	Not Reported		
Pop Served:	Unknown, Small System	Connections:	Unknown, Small System
Area Served:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation			Database	EDR ID Number
1G **WNW** **1/4 - 1/2 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083301366T Varies Not Reported Not Reported 80 07/07/1995	**AQUIFLOW**	**50768**
2G **SW** **1/2 - 1 Mile** **Lower**	Site ID: Groundwater Flow: Shallow Water Depth: Deep Water Depth: Average Water Depth: Date:	083300480T Not Reported Not Reported Not Reported 50 09/18/1991	**AQUIFLOW**	**67279**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92509	12	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 92509

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.900 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX D

VAPOR ENCROACHMENT SCREEN

AMCP - Southern Parcel
1500 Rubidoux Blvd
Riverside, CA 92509

Inquiry Number: 5273221.2s
May 3, 2018

EDR Vapor Encroachment Screen

Prepared using EDR's Vapor Encroachment Worksheet

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	**ES1**
Primary Map	**2**
Secondary Map	**3**
Map Findings	**4**
Record Sources and Currency	**GR-1**

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by EDR. The report was designed to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E 2600).

STANDARD ENVIRONMENTAL RECORDS	Default Area of Concern (Miles)*	property	1/10	> 1/10
Federal NPL site list	1.0	0	0	0
Federal Delisted NPL site list	1.0	0	0	0
Federal CERCLIS list	0.5	1	0	0
Federal CERCLIS NFRAP site list	0.5	0	0	0
Federal RCRA CORRACTS facilities list	1.0	0	0	0
Federal RCRA non-CORRACTS TSD facilities list	0.5	0	0	0
Federal RCRA generators list	0.25	0	0	0
Federal institutional controls / engineering controls registries	0.5	0	0	0
Federal ERNS list	0.001	0	0	-
State- and tribal - equivalent NPL	1.0	0	0	0
State- and tribal - equivalent CERCLIS	1.0	2	0	0
State and tribal landfill and/or solid waste disposal site lists	0.5	0	0	0
State and tribal leaking storage tank lists	0.5	1	0	0
State and tribal registered storage tank lists	0.25	2	0	0
State and tribal institutional control / engineering control registries	not searched	-	-	-
State and tribal voluntary cleanup sites	0.5	1	0	0
State and tribal Brownfields sites	0.5	0	0	0

ADDITIONAL ENVIRONMENTAL RECORDS				
Local Brownfield lists	0.5	0	0	0
Local Lists of Landfill / Solid Waste Disposal Sites	0.5	1	0	0
Local Lists of Hazardous waste / Contaminated Sites	1.0	0	0	0
Local Lists of Registered Storage Tanks	0.25	2	0	0
Local Land Records	0.5	0	0	0
Records of Emergency Release Reports	0.5	1	0	0
Other Ascertainable Records	1.0	12	0	0

EDR HIGH RISK HISTORICAL RECORDS				
EDR Exclusive Records	1.0	0	0	0
Exclusive Recovered Govt. Archives	0.001	2	0	-

EXECUTIVE SUMMARY

EDR RECOVERED GOVERNMENT ARCHIVES

EDR Exclusive Records	1.0	0	0	0
Exclusive Recovered Govt. Archives	0.001	2	0	-

*The Default Area of Concern may be adjusted by the environmental professional using experience and professional judgement. Each category may include several databases, and each database may have a different distance. A list of individual databases is provided at the back of this report.

EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

AMCP - SOUTHERN PARCEL
1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

COORDINATES

Latitude (North):	34.024383 - 34° 1′ 27.780762″
Longitude (West):	117.384086 - 117° 23′ 2.711792″
Elevation:	982 ft. above sea level

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records.

Site	Database(s)
TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 1500 RUBIDOUX BOULEVARD RIVERSIDE, CA 92509-1840	ECHO Registry ID: 110001199587 FINDS Registry ID:: 110001199587
RIVERSIDE CEMENT 1500 RUBIDOUX BLVD RIVERSIDE, CA	RGA LUST Facility ID:
RIVERSIDE CEMENT 1500 RUBIDOUX BOULEVARD RIVERSIDE, CA	RGA LUST Facility ID:
RIVERSIDE CEMENT CO A CA GEN PARTNERSHIP 1500 RUBIDOUX BLVD RIVERSIDE, CA 925020000	HAZNET GEPAID: CAD063844443
RIVERSIDE CEMENT CO (EIS USE) 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	FINDS Registry ID:: 110041108565
RIVERSIDE CEMENT/TXI RIVERSIDE CEMENT 1500 RUBEDOUX BLVD RIVERSIDE, CA 925020000	HAZNET GEPAID: CAC001472088
PANTHER IRON COMPANY INC 1500 RUBIDOUX BLVD RIVERSIDE, CA 925091840	HAZNET GEPAID: CAC002584294
RIVERSIDE CEMENT COMPANY 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	SWEEPS UST Status: A Comp Number: 65436 Tank Status: A CA FID UST Status: A Facility Id: 33003042

EXECUTIVE SUMMARY

Site	Database(s)
RIVERSIDE CEMENT PLANT REDEVELOPMENT 1500 RUBIDOUX BOULEVARD RIVERSIDE, CA 92508	EMI Facility Id: 800182 HIST UST Facility Id: 00000065436 ENVIROSTOR Status: Active Facility Id: 60002561 VCP Facility Id: 60002561 Status: Active
BRINE FAC AND STP, RIVERSIDE CEMENT CO. 1500 RUBIDOUX RIVERSIDE, CA	LDS Global Id: L10003541579 Status: Completed - Case Closed
TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	US AIRS EPA plant ID:: 110001199587 ICIS FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 FRS ID:: 110001199587 SEMS EPA Id: CAD063844443 Site ID: 0901505
RIVERSIDE CEMENT COMPANY- CRESTMORE FACILITY 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	AST
RIVERSIDE CEMENT COMPANY - CRESTMORE PLANT 1500 RUBIDOUX BLVD. RIVERSIDE, CA 92509	TSCA
RIVERSIDE CEMENT CRESTMORE PLANT 1500 RUBIDOUX BLVD. RIVERSIDE, CA	AST
BRINE FAC AND STP 1500 RUBIDOUX RIVERSIDE, CA 92509	FINDS Registry ID:: 110065419862

EXECUTIVE SUMMARY

Site	Database(s)
RIVERSIDE CEMENT CO (EIS USE) 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	WMUDS/SWAT EMI Facility Id: 800182 LUST Status: Completed - Case Closed Facility Status: Case Closed Facility Id: 89210 Global Id: T0606500166 Facility Status: 9 Global ID: T0606500166 HIST CORTESE Reg Id: 083301366T WDS Facility Id: 8 33I002053 Facility Status: A NPDES Facility Status: Terminated Facility Status: ENVIROSTOR Status: Refer: RWQCB Facility Id: 33140002
CRESTMORE QUARRY 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	ABANDONED MINES
RIVERSIDE CEMENT COMPANY- CRESTMORE FACILITY 1500 RUBIDOUX BLVD RIVERSIDE, CA 92509	FINDS Registry ID:: 110065974994

EXECUTIVE SUMMARY

SEARCH RESULTS

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Name	Address	Dist/Dir	Map ID	Page
RIVERSIDE CEMENT PLANT REDEVELOPMENT EMI: EMI HIST UST: HIST UST ENVIROSTOR: ENVIROSTOR VCP: VCP	1500 RUBIDOUX BOULEVARD	Property	▲ A9	18
TXI RIVERSIDE CEMENT CO - CRESTMORE PLT US AIRS: US AIRS (AFS) ICIS: ICIS SEMS: SEMS	1500 RUBIDOUX BLVD	Property	▲ A11	29
RIVERSIDE CEMENT COMPANY- CRESTMORE FACILITY AST: AST	1500 RUBIDOUX BLVD	Property	▲ A12	78
RIVERSIDE CEMENT CRESTMORE PLANT AST: AST	1500 RUBIDOUX BLVD.	Property	▲ A14	79
RIVERSIDE CEMENT CO (EIS USE) WMUDS/SWAT: WMUDS/SWAT EMI: EMI LUST: LUST HIST CORTESE: HIST CORTESE WDS: WDS NPDES: NPDES ENVIROSTOR: ENVIROSTOR	1500 RUBIDOUX BLVD	Property	▲ A16	80

ADDITIONAL ENVIRONMENTAL RECORDS

Name	Address	Dist/Dir	Map ID	Page
TXI RIVERSIDE CEMENT CO - CRESTMORE PLT ECHO: ECHO FINDS: FINDS	1500 RUBIDOUX BOULEVARD	Property	▲ A1	11
RIVERSIDE CEMENT CO A CA GEN PARTNERSHIP HAZNET: HAZNET	1500 RUBIDOUX BLVD	Property	▲ A4	12
RIVERSIDE CEMENT CO (EIS USE) FINDS: FINDS	1500 RUBIDOUX BLVD	Property	▲ A5	14
RIVERSIDE CEMENT/TXI RIVERSIDE CEMENT HAZNET: HAZNET	1500 RUBEDOUX BLVD	Property	▲ A6	15
PANTHER IRON COMPANY INC HAZNET: HAZNET	1500 RUBIDOUX BLVD	Property	▲ A7	15
RIVERSIDE CEMENT COMPANY	1500 RUBIDOUX BLVD	Property	▲ A8	17

EXECUTIVE SUMMARY

Name	Address	Dist/Dir	Map ID	Page
SWEEPS UST: SWEEPS UST CA FID UST: CA FID UST				
RIVERSIDE CEMENT PLANT REDEVELOPMENT EMI: EMI HIST UST: HIST UST ENVIROSTOR: ENVIROSTOR VCP: VCP	1500 RUBIDOUX BOULEVARD	Property	▲ A9	18
BRINE FAC AND STP, RIVERSIDE CEMENT CO. LDS: LDS	1500 RUBIDOUX	Property	▲ A10	29
TXI RIVERSIDE CEMENT CO - CRESTMORE PLT US AIRS: US AIRS (AFS) ICIS: ICIS SEMS: SEMS	1500 RUBIDOUX BLVD	Property	▲ A11	29
RIVERSIDE CEMENT COMPANY - CRESTMORE PLANT TSCA: TSCA	1500 RUBIDOUX BLVD.	Property	▲ A13	79
BRINE FAC AND STP FINDS: FINDS	1500 RUBIDOUX	Property	▲ A15	80
RIVERSIDE CEMENT CO (EIS USE) WMUDS/SWAT: WMUDS/SWAT EMI: EMI LUST: LUST HIST CORTESE: HIST CORTESE WDS: WDS NPDES: NPDES ENVIROSTOR: ENVIROSTOR	1500 RUBIDOUX BLVD	Property	▲ A16	80
CRESTMORE QUARRY ABANDONED MINES: ABANDONED MINES	1500 RUBIDOUX BLVD	Property	▲ A17	93
RIVERSIDE CEMENT COMPANY- CRESTMORE FACILITY FINDS: FINDS	1500 RUBIDOUX BLVD	Property	▲ A18	94

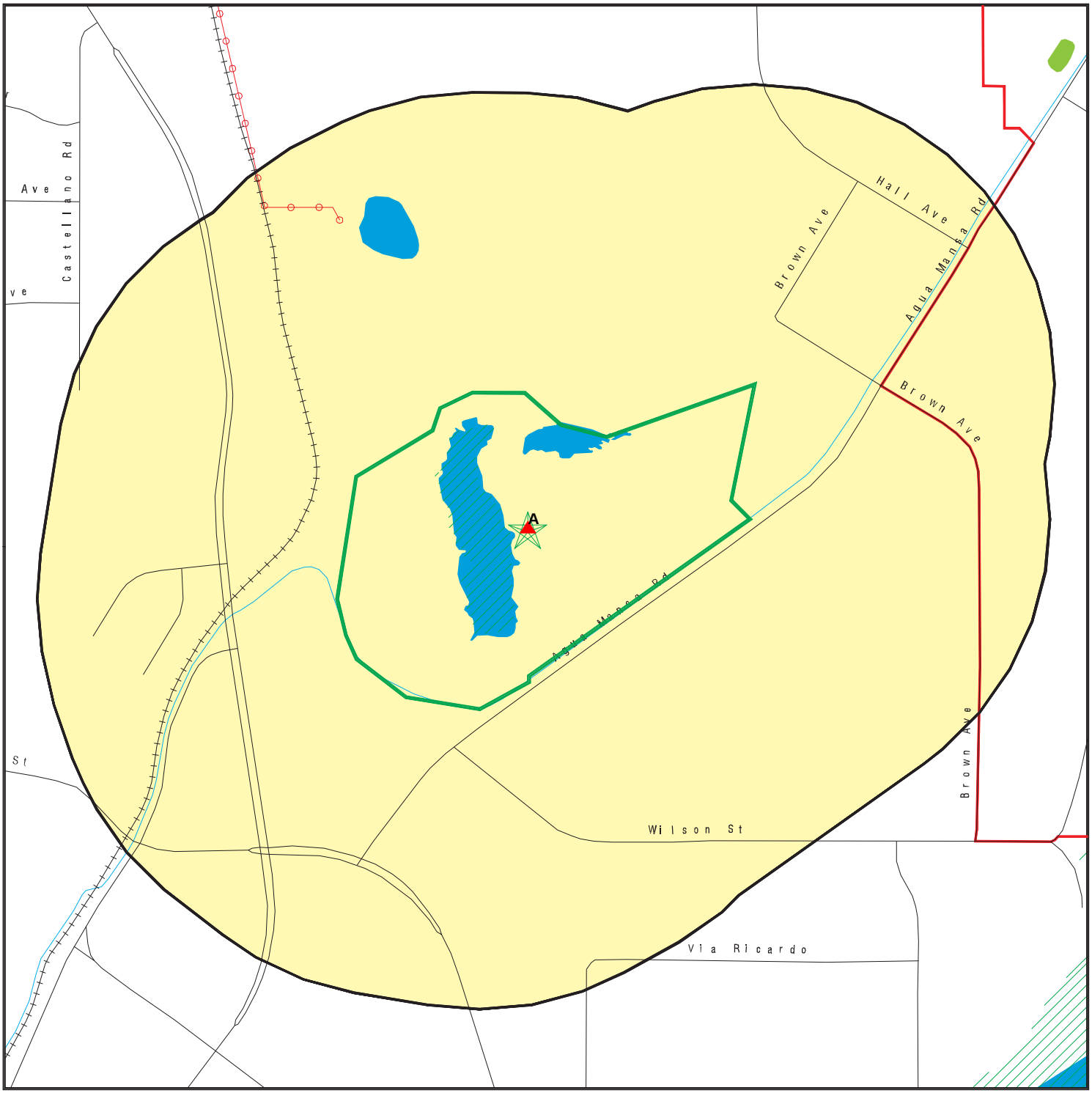
EDR HIGH RISK HISTORICAL RECORDS

Name	Address	Dist/Dir	Map ID	Page
Not Reported				

EDR RECOVERED GOVERNMENT ARCHIVES

Name	Address	Dist/Dir	Map ID	Page
RIVERSIDE CEMENT RGA LUST: RGA LUST	1500 RUBIDOUX BLVD	Property	▲ A2	12
RIVERSIDE CEMENT RGA LUST: RGA LUST	1500 RUBIDOUX BOULEVARD	Property	▲ A3	12

PRIMARY MAP - 5273221.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

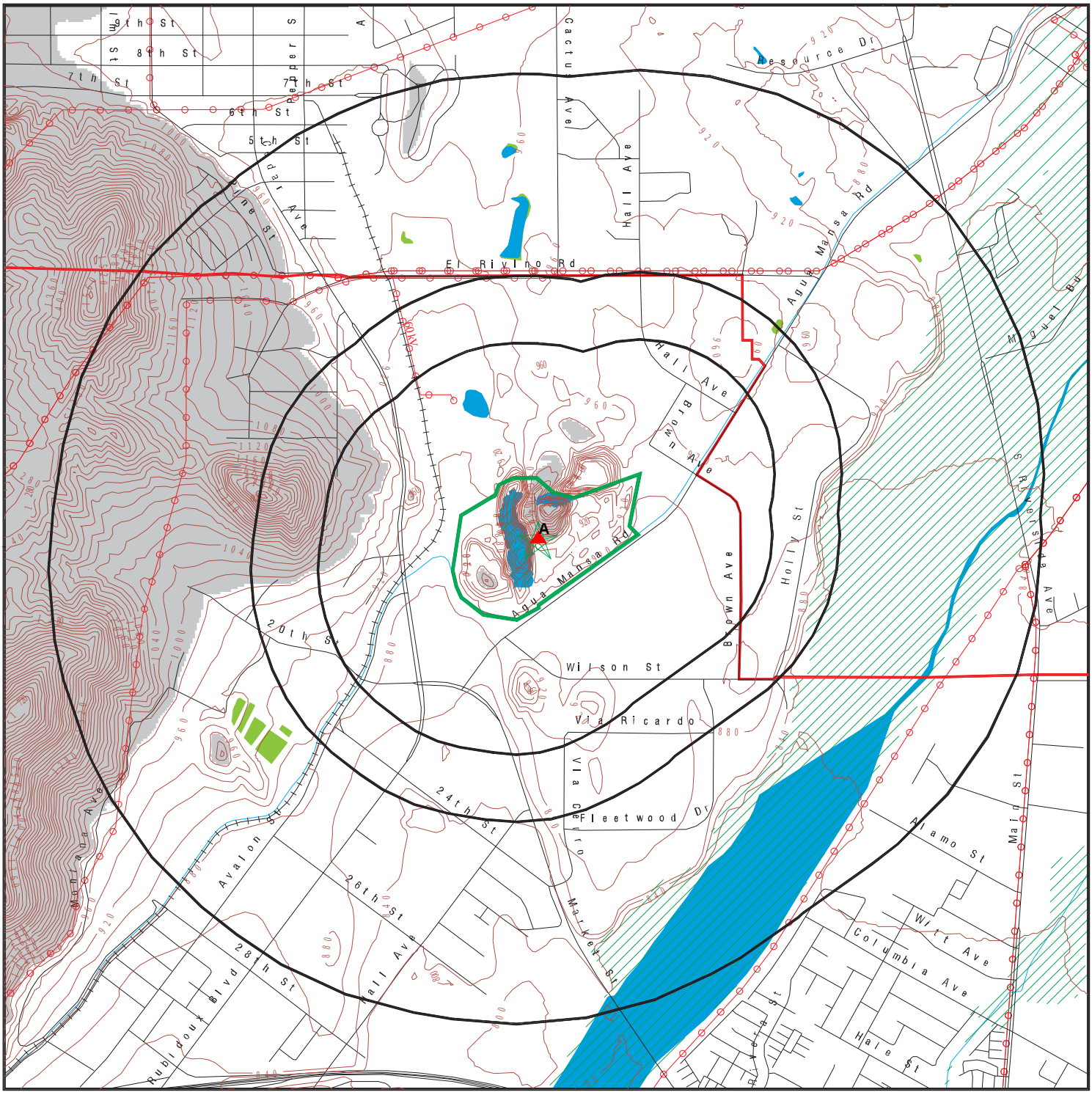
This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	AMCP - Southern Parcel	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Rachel Prohoroff
LAT/LONG:	34.024383 / 117.384086	INQUIRY #:	5273221.2s
		DATE:	April 27, 2018 7:11 am

G-3945

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SECONDARY MAP - 5273221.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Upgradient Area
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME:	AMCP - Southern Parcel	CLIENT:	Langan Engineering
ADDRESS:	1500 Rubidoux Blvd Riverside CA 92509	CONTACT:	Rachel Prohoroff
LAT/LONG:	34.024383 / 117.384086	INQUIRY #:	5273221.2s
	G-3946	DATE:	April 27, 2018 7:10 am

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MAP FINDINGS

LEGEND

FACILITY NAME **FACILITY ADDRESS, CITY, ST, ZIP**		EDR SITE ID NUMBER
◆ **MAP ID#**	Direction Distance Range (Distance feet / miles) Relative Elevation Feet Above Sea Level	ASTM 2600 Record Sources found in this report. Each database searched has been assigned to one or more categories. For detailed information about categorization, see the section of the report Records Searched and Currency.

Worksheet:

Comments:
Comments may be added on the online Vapor Encroachment Worksheet.

DATABASE ACRONYM: Applicable categories (A hoverbox with database description).

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA, 92509-1840		1016068533
▲ A1	Target Property 982 ft. Above Sea Level	Other Ascertainable Records

Worksheet:

FINDS: Other Ascertainable Records

Registry ID: 110001199587

Environmental Interest/Information System:

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

SUPERFUND (NON-NPL)

AIR MAJOR

The FINDS: database contains 0 additional records for this site. Please contact your EDR Account Executive for more information.

ECHO: Other Ascertainable Records

Envid: 1016068533
Registry ID: 110001199587
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110001199587

MAP FINDINGS

RIVERSIDE CEMENT 1500 RUBIDOUX BLVD, RIVERSIDE, CA,		S114677341
▲ A2	Target Property 982 ft. Above Sea Level	Exclusive Recovered Govt. Archives

Worksheet:

RGA LUST: Exclusive Recovered Govt. Archives

2012	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2011	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2010	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2009	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2008	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2007	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2006	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2005	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2004	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2003	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2002	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD
2001	RIVERSIDE CEMENT	1500 RUBIDOUX BLVD

RIVERSIDE CEMENT 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA,		S114677342
▲ A3	Target Property 982 ft. Above Sea Level	Exclusive Recovered Govt. Archives

Worksheet:

RGA LUST: Exclusive Recovered Govt. Archives

1998	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1997	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1996	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1995	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1994	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1993	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD
1992	RIVERSIDE CEMENT	1500 RUBIDOUX BOULEVARD

RIVERSIDE CEMENT CO A CA GEN PARTNERSHIP 1500 RUBIDOUX BLVD, RIVERSIDE, CA, 925020000	S113001343

MAP FINDINGS

▲ A4	Target Property	Other Ascertainable Records
	982 ft. Above Sea Level	

Worksheet:

HAZNET: Other Ascertainable Records

envid:	S113001343
Year:	2016
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not Reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	TXD055141378
TSD County:	99
Waste Category:	Liquids with polychloronated biphenyls >= 50 Mg./L
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	1.0425
Cat Decode:	Liquids with polychloronated biphenyls >= 50 Mg./L
Method Decode:	Incineration--Thermal Destruction Other Than Use As A Fuel
Facility County:	Riverside

envid:	S113001343
Year:	2016
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not Reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	CAD982444481
TSD County:	San Bernardino
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.063
Cat Decode:	Aqueous solution with total organic residues less than 10 percent
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside

envid:	S113001343
Year:	2016
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not Reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside

RIVERSIDE CEMENT CO A CA GEN PARTNERSHIP, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 925020000 (Continued)

TSD EPA ID:	CAD982444481
TSD County:	San Bernardino
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	3.5025
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Riverside
envid:	S113001343
Year:	2016
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not Reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Polychlorinated biphenyls and material containing PCBs
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	2.59411
Cat Decode:	Polychlorinated biphenyls and material containing PCBs
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Facility County:	Riverside
envid:	S113001343
Year:	2015
GEPAID:	CAD063844443
Contact:	MICHAEL MEINEN
Telephone:	7606178141
Mailing Name:	Not Reported
Mailing Address:	245 WARD RD
Mailing City,St,Zip:	MIDLOTHIAN, TX 76065
Gen County:	Riverside
TSD EPA ID:	TXD055141378
TSD County:	99
Waste Category:	Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method:	Incineration--Thermal Destruction Other Than Use As A Fuel
Tons:	0.066
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	Riverside

The CA_HAZNET: database contains 126 additional records for this site. Please contact your EDR Account Executive for more information.

RIVERSIDE CEMENT CO (EIS USE)
1500 RUBIDOUX BLVD, RIVERSIDE, CA, 92509 **1014675933**

▲ A5	Target Property 982 ft. Above Sea Level	Other Ascertainable Records

Worksheet:

FINDS: Other Ascertainable Records

Registry ID: 110041108565

Environmental Interest/Information System:

HAZARDOUS AIR POLLUTANT MAJOR

STATE MASTER

The FINDS: database contains 0 additional records for this site. Please contact your EDR Account Executive for more information.

RIVERSIDE CEMENT/TXI RIVERSIDE CEMENT
1500 RUBEDOUX BLVD, RIVERSIDE, CA, 925020000 S112893771

▲ A6	Target Property 982 ft. Above Sea Level	Other Ascertainable Records

Worksheet:

HAZNET: Other Ascertainable Records

envid:	S112893771
Year:	1999
GEPAID:	CAC001472088
Contact:	TXI RIVERSIDE CEMENT
Telephone:	9096836458
Mailing Name:	Not Reported
Mailing Address:	PO BOX 56040
Mailing City,St,Zip:	RIVERSIDE, CA 925170000
Gen County:	Not Reported
TSD EPA ID:	CAT080013352
TSD County:	Not Reported
Waste Category:	Waste oil and mixed oil
Disposal Method:	Recycler
Tons:	12.9270
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	Riverside

PANTHER IRON COMPANY INC
1500 RUBIDOUX BLVD, RIVERSIDE, CA, 925091840 S112941758

▲ A7	Target Property 982 ft. Above Sea Level	Other Ascertainable Records

MAP FINDINGS

Worksheet:

HAZNET: Other Ascertainable Records

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not Reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not Reported
TSD EPA ID:	NVT330010000
TSD County:	Not Reported
Waste Category:	D006
Disposal Method:	Disposal, Land Fill
Tons:	32.02
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	Riverside

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not Reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not Reported
TSD EPA ID:	NVT330010000
TSD County:	Not Reported
Waste Category:	D008
Disposal Method:	Disposal, Land Fill
Tons:	15.17
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	Riverside

envid:	S112941758
Year:	2004
GEPAID:	CAC002584294
Contact:	JAMES JOHNSON
Telephone:	3052853136
Mailing Name:	Not Reported
Mailing Address:	3001 JOSIE BILLIE AVE
Mailing City,St,Zip:	HOLLYWOOD, FL 33024
Gen County:	Not Reported
TSD EPA ID:	NVT330010000
TSD County:	Not Reported
Waste Category:	D006

PANTHER IRON COMPANY INC, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 925091840 (Continued)

Disposal Method:	Disposal, Other
Tons:	94.39
Cat Decode:	Not Reported
Method Decode:	Not Reported
Facility County:	Riverside

RIVERSIDE CEMENT COMPANY 1500 RUBIDOUX BLVD, RIVERSIDE, CA, 92509		S101619622
▲ A8	Target Property 982 ft. Above Sea Level	Local Lists of Registered Storage Tanks

Worksheet:

SWEEPS UST: Local Lists of Registered Storage Tanks

Status:	Active
Comp Number:	65436
Number:	1
Board Of Equalization:	44-018479
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	Not Reported
SWRCB Tank Id:	33-000-065436-000008
Tank Status:	A
Capacity:	12000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	2

Status:	Active
Comp Number:	65436
Number:	1
Board Of Equalization:	44-018479
Referral Date:	11-18-92
Action Date:	11-18-92
Created Date:	02-29-88
Owner Tank Id:	Not Reported
SWRCB Tank Id:	33-000-065436-000009
Tank Status:	A
Capacity:	10000
Active Date:	11-18-92
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not Reported

RIVERSIDE CEMENT COMPANY, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

CA FID UST: Local Lists of Registered Storage Tanks

Facility ID:	33003042
Regulated By:	UTNKA
Regulated ID:	00065436
Cortese Code:	Not Reported
SIC Code:	Not Reported
Facility Phone:	7146833660
Mail To:	Not Reported
Mailing Address:	P O BOX 832
Mailing Address 2:	Not Reported
Mailing City,St,Zip:	RIVERSIDE 92509
Contact:	Not Reported
Contact Phone:	Not Reported
DUNs Number:	Not Reported
NPDES Number:	Not Reported
EPA ID:	Not Reported
Comments:	Not Reported
Status:	Active

RIVERSIDE CEMENT PLANT REDEVELOPMENT 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA, 92508		U001576600
▲ A9	Target Property 982 ft. Above Sea Level	State- and tribal - equivalent CERCLIS State and tribal voluntary cleanup sites Local Lists of Registered Storage Tanks Other Ascertainable Records

Worksheet:

ENVIROSTOR: State- and tribal - equivalent CERCLIS

Facility ID:	60002561
Status:	Active
Status Date:	09/20/2017
Site Code:	401799
Site Type:	Voluntary Cleanup
Site Type Detailed:	Voluntary Cleanup
Acres:	207
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Xihong (Scarlett) Zhai
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	, 60
Senate:	, 31
Special Program:	Not Reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Responsible Party

RIVERSIDE CEMENT PLANT REDEVELOPMENT, 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA 92508 (Continued)

Latitude:	34.02863
Longitude:	-117.3855
APN:	175-170-035 through -036, 175-170-040, 175-170-041, 175-180-001, 175-200-001, 175-200-002 through -005, 175-200-007 through -009
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	175-170-035 through -036
Alias Type:	APN
Alias Name:	175-170-040
Alias Type:	APN
Alias Name:	175-170-041
Alias Type:	APN
Alias Name:	175-180-001
Alias Type:	APN
Alias Name:	175-200-001
Alias Type:	APN
Alias Name:	175-200-002 through -005
Alias Type:	APN
Alias Name:	175-200-007 through -009
Alias Type:	APN
Alias Name:	401799
Alias Type:	Project Code (Site Code)
Alias Name:	60002561
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Lot 1
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 4
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 9
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 2
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported

RIVERSIDE CEMENT PLANT REDEVELOPMENT, 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA 92508 (Continued)

Completed Area Name:	Lot 6
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 7
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 5
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 3
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 8
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Application
Completed Date:	10/04/2017
Comments:	Not Reported
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not Reported
Future Document Type:	Site Characterization Report
Future Due Date:	2019
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not Reported
Schedule Document Type:	Preliminary Endangerment Assessment Report
Schedule Due Date:	04/06/2018
Schedule Revised Date:	Not Reported

VCP: State and tribal voluntary cleanup sites

Facility ID:	60002561
Site Type:	Voluntary Cleanup
Site Type Detail:	Voluntary Cleanup
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	207

RIVERSIDE CEMENT PLANT REDEVELOPMENT, 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA 92508 (Continued)

National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Xihong (Scarlett) Zhai
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	401799
Assembly:	, 60
Senate:	, 31
Special Programs Code:	Not Reported
Status:	Active
Status Date:	09/20/2017
Restricted Use:	NO
Funding:	Responsible Party
Lat/Long:	34.02863 / -117.3855
APN:	175-170-035 through -036, 175-170-040, 175-170-041, 175-180-001, 175-200-001, 175-200-002 through -005, 175-200-007 through -009
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	175-170-035 through -036
Alias Type:	APN
Alias Name:	175-170-040
Alias Type:	APN
Alias Name:	175-170-041
Alias Type:	APN
Alias Name:	175-180-001
Alias Type:	APN
Alias Name:	175-200-001
Alias Type:	APN
Alias Name:	175-200-002 through -005
Alias Type:	APN
Alias Name:	175-200-007 through -009
Alias Type:	APN
Alias Name:	401799
Alias Type:	Project Code (Site Code)
Alias Name:	60002561
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Lot 1
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 4
Completed Sub Area Name:	Not Reported

RIVERSIDE CEMENT PLANT REDEVELOPMENT, 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA 92508 (Continued)

Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 9
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 2
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 6
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 7
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 5
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 3
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	Lot 8
Completed Sub Area Name:	Not Reported
Completed Document Type:	California Land Reuse and Revitalization Agreement
Completed Date:	01/16/2018
Comments:	Not Reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Application
Completed Date:	10/04/2017
Comments:	Not Reported
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not Reported

RIVERSIDE CEMENT PLANT REDEVELOPMENT, 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA 92508 (Continued)

Future Document Type:	Site Characterization Report
Future Due Date:	2019
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not Reported
Schedule Document Type:	Preliminary Endangerment Assessment Report
Schedule Due Date:	04/06/2018
Schedule Revised Date:	Not Reported

HIST UST: Local Lists of Registered Storage Tanks

File Number:	0001F6CC
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F6CC.pdf
Region:	STATE
Facility ID:	00000065436
Facility Type:	Other
Other Type:	CEMENT
Contact Name:	Not Reported
Telephone:	7146833660
Owner Name:	GIFFORD-HILL INC.
Owner Address:	300 EAST JOHN CARPENTER FREEWA
Owner City,St,Zip:	IRVING, TX 75062
Total Tanks:	0007
Tank Num:	001
Container Num:	DIESEL #1
Year Installed:	Not Reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not Reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	GASOLINE#1
Year Installed:	Not Reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not Reported
Leak Detection:	Stock Inventor
Tank Num:	003
Container Num:	AB #1
Year Installed:	Not Reported
Tank Capacity:	00002000
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not Reported
Leak Detection:	None
Tank Num:	004
Container Num:	AB #2

RIVERSIDE CEMENT PLANT REDEVELOPMENT, 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA 92508 (Continued)

Year Installed:	Not Reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not Reported
Leak Detection:	None
Tank Num:	005
Container Num:	AB #3
Year Installed:	Not Reported
Tank Capacity:	00000000
Tank Used for:	PRODUCT
Type of Fuel:	06
Container Construction Thickness:	Not Reported
Leak Detection:	Visual
Tank Num:	006
Container Num:	DIESEL 2A
Year Installed:	Not Reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not Reported
Leak Detection:	Stock Inventor
Tank Num:	007
Container Num:	DISEL #2B
Year Installed:	Not Reported
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not Reported
Leak Detection:	Stock Inventor
Click here for Geo Tracker PDF:	http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_CA_HISTUST_PDF&img_id=0001F6CC

EMI: Other Ascertainable Records

Year:	1987
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3255
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	4
Carbon Monoxide Emissions Tons/Yr:	233

RIVERSIDE CEMENT PLANT REDEVELOPMENT, 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA 92508 (Continued)

NOX - Oxides of Nitrogen Tons/Yr:	555
SOX - Oxides of Sulphur Tons/Yr:	68
Particulate Matter Tons/Yr:	110
Part. Matter 10 Micrometers and Smllr Tons/Yr:	98
Year:	1990
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3255
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	21
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	107
NOX - Oxides of Nitrogen Tons/Yr:	59
SOX - Oxides of Sulphur Tons/Yr:	61
Particulate Matter Tons/Yr:	97
Part. Matter 10 Micrometers and Smllr Tons/Yr:	89
Year:	1995
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3255
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	12
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	84
NOX - Oxides of Nitrogen Tons/Yr:	51
SOX - Oxides of Sulphur Tons/Yr:	12
Particulate Matter Tons/Yr:	47
Part. Matter 10 Micrometers and Smllr Tons/Yr:	43
Year:	1997
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241

RIVERSIDE CEMENT PLANT REDEVELOPMENT, 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA 92508 (Continued)

Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	46
Year:	1998
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	7
Reactive Organic Gases Tons/Yr:	6
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	44
Year:	1999
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50

RIVERSIDE CEMENT PLANT REDEVELOPMENT, 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA 92508 (Continued)

Part. Matter 10 Micrometers and Smllr Tons/Yr:	46
Year:	2000
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	7
Carbon Monoxide Emissions Tons/Yr:	36
NOX - Oxides of Nitrogen Tons/Yr:	139
SOX - Oxides of Sulphur Tons/Yr:	58
Particulate Matter Tons/Yr:	50
Part. Matter 10 Micrometers and Smllr Tons/Yr:	46
Year:	2001
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	46
NOX - Oxides of Nitrogen Tons/Yr:	59
SOX - Oxides of Sulphur Tons/Yr:	17
Particulate Matter Tons/Yr:	41
Part. Matter 10 Micrometers and Smllr Tons/Yr:	38
Year:	2009
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported

RIVERSIDE CEMENT PLANT REDEVELOPMENT, 1500 RUBIDOUX BOULEVARD, RIVERSIDE, CA 92508 (Continued)

Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	3.1786142691247098E-2
Reactive Organic Gases Tons/Yr:	0.0179197
Carbon Monoxide Emissions Tons/Yr:	0.15273999999999999
NOX - Oxides of Nitrogen Tons/Yr:	0.26882
SOX - Oxides of Sulphur Tons/Yr:	0.0011255
Particulate Matter Tons/Yr:	3.7936100000000001
Part. Matter 10 Micrometers and Smllr Tons/Yr:	3.49106344

Year:	2011
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.023880149034
Reactive Organic Gases Tons/Yr:	0.01282
Carbon Monoxide Emissions Tons/Yr:	0.12405
NOX - Oxides of Nitrogen Tons/Yr:	0.21599
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2.30864
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2.12480328

Year:	2015
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.091183547074
Reactive Organic Gases Tons/Yr:	0.090377524
Carbon Monoxide Emissions Tons/Yr:	0.010587099
NOX - Oxides of Nitrogen Tons/Yr:	0.02105819
SOX - Oxides of Sulphur Tons/Yr:	6.3007e-005
Particulate Matter Tons/Yr:	4.650935804
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1.8672431973

MAP FINDINGS

BRINE FAC AND STP, RIVERSIDE CEMENT CO. 1500 RUBIDOUX, RIVERSIDE, CA,	S121132484	
▲ A10	Target Property 982 ft. Above Sea Level	Records of Emergency Release Reports

Worksheet:

LDS: Records of Emergency Release Reports

Global Id:	L10003541579
Latitude:	34.02892
Longitude:	-117.3865
Case Type:	Land Disposal Site
Status:	Completed - Case Closed
Status Date:	11/02/2009
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Caseworker:	KDP
Local Agency:	Not Reported
RB Case Number:	8 332000001
LOC Case Number:	Not Reported
File Location:	Not Reported
Potential Media Affect:	Not Reported
EDR Link ID:	L10003541579
Potential Contaminants of Concern:	Not Reported
Site History:	Not Reported
Click here to access the California GeoTracker records for this facility:	http://www.web.edrnet.com/ordering/switchboard/redirect.aspx?s=GRR_CA_LDS&global_id=L10003541579

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 1500 RUBIDOUX BLVD, RIVERSIDE, CA, 92509	1000218306	
▲ A11	Target Property 982 ft. Above Sea Level	Federal CERCLIS list Other Ascertainable Records

Worksheet:

SEMS: Federal CERCLIS list

Site ID:	901505
EPA ID:	CAD063844443
Cong District:	36
FIPS Code:	6065
Latitude:	Not Reported
Longitude:	Not Reported
FF:	N
NPL:	Not on the NPL
Non NPL Status:	Other Cleanup Activity: State-Lead Cleanup

SEMS Detail:

Region:	9

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Site ID:	901505
EPA ID:	CAD063844443
Site Name:	RIVERSIDE CEMENT CO CRESTMORE PLT
NPL:	N
FF:	N
OU:	0
Action Code:	SI
Action Name:	SI
SEQ:	1
Start Date:	Not Reported
Finish Date:	12/1/1990
Qual:	L
Current Action Lead:	EPA Perf
Region:	9
Site ID:	901505
EPA ID:	CAD063844443
Site Name:	RIVERSIDE CEMENT CO CRESTMORE PLT
NPL:	N
FF:	N
OU:	0
Action Code:	DS
Action Name:	DISCVRY
SEQ:	1
Start Date:	1980-08-01 00:00:00
Finish Date:	8/1/1980
Qual:	Not Reported
Current Action Lead:	EPA Perf
Region:	9
Site ID:	901505
EPA ID:	CAD063844443
Site Name:	RIVERSIDE CEMENT CO CRESTMORE PLT
NPL:	N
FF:	N
OU:	0
Action Code:	PA
Action Name:	PA
SEQ:	1
Start Date:	Not Reported
Finish Date:	9/1/1988
Qual:	H
Current Action Lead:	EPA Perf
Region:	9
Site ID:	901505
EPA ID:	CAD063844443
Site Name:	RIVERSIDE CEMENT CO CRESTMORE PLT
NPL:	N
FF:	N
OU:	0

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Action Code:	VA
Action Name:	OTHR CLEANUP
SEQ:	1
Start Date:	2007-06-06 00:00:00
Finish Date:	Not Reported
Qual:	Not Reported
Current Action Lead:	St Perf
Region:	9
Site ID:	901505
EPA ID:	CAD063844443
Site Name:	RIVERSIDE CEMENT CO CRESTMORE PLT
NPL:	N
FF:	N
OU:	0
Action Code:	OO
Action Name:	SITE REASS
SEQ:	2
Start Date:	Not Reported
Finish Date:	6/6/2007
Qual:	Not Reported
Current Action Lead:	St Perf
Region:	9
Site ID:	901505
EPA ID:	CAD063844443
Site Name:	RIVERSIDE CEMENT CO CRESTMORE PLT
NPL:	N
FF:	N
OU:	0
Action Code:	OO
Action Name:	SITE REASS
SEQ:	1
Start Date:	2002-07-01 00:00:00
Finish Date:	6/30/2003
Qual:	L
Current Action Lead:	St Perf
Region:	9
Site ID:	901505
EPA ID:	CAD063844443
Site Name:	RIVERSIDE CEMENT CO CRESTMORE PLT
NPL:	N
FF:	N
OU:	0
Action Code:	PA
Action Name:	PA
SEQ:	2
Start Date:	1984-10-01 00:00:00
Finish Date:	1/1/1985
Qual:	L

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Current Action Lead: St Perf

ICIS: Other Ascertainable Records

Enforcement Action ID: CASCAA0000060650000300120
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300120
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Administrative Order
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Formal
EA Type Code: SCAAAO
Facility SIC Code: 3255
Federal Facility ID: Not Reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not Reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not Reported

Enforcement Action ID: CASCAA0000060650000300119
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300119
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509
Enforcement Action Type: Notice of Violation
Facility County: RIVERSIDE
Program System Acronym: AIR
Enforcement Action Forum Desc: Administrative - Informal
EA Type Code: NOV
Facility SIC Code: 3255
Federal Facility ID: Not Reported
Latitude in Decimal Degrees: 34.02729
Longitude in Decimal Degrees: -117.38995
Permit Type Desc: Not Reported
Program System Acronym: CASCA0000606500003
Facility NAICS Code: 327124
Tribal Land Code: Not Reported

Enforcement Action ID: CASCAA0000060650000300107
FRS ID: 110001199587
Action Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300107
Facility Name: TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address: 1500 RUBIDOUX BLVD
RIVERSIDE, CA 92509

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300106
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300106
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300096
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300096
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300095
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300095
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300077
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300077
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300076
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300076
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300066
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300066
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300065
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300065
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300061
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300061
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300060
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300060
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300043
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300043
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300042
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300042
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300037
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300037
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Administrative Order
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Formal
EA Type Code:	SCAAAO
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported
Enforcement Action ID:	CASCAA0000060650000300036
FRS ID:	110001199587
Action Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT 060650000300036
Facility Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Facility Address:	1500 RUBIDOUX BLVD RIVERSIDE, CA 92509
Enforcement Action Type:	Notice of Violation
Facility County:	RIVERSIDE
Program System Acronym:	AIR
Enforcement Action Forum Desc:	Administrative - Informal
EA Type Code:	NOV
Facility SIC Code:	3255
Federal Facility ID:	Not Reported
Latitude in Decimal Degrees:	34.02729
Longitude in Decimal Degrees:	-117.38995
Permit Type Desc:	Not Reported
Program System Acronym:	CASCA0000606500003
Facility NAICS Code:	327124
Tribal Land Code:	Not Reported

US AIRS (AFS): Other Ascertainable Records

Envid:	1000218306
Region Code:	09
County Code:	CA065
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
D and B Number:	Not Reported
Facility Site Name:	TXI RIVERSIDE CEMENT CO - CRESTMORE PLT
Primary SIC Code:	3255
NAICS Code:	327124
Default Air Classification Code:	MAJ
Facility Type of Ownership Code:	POF
Air CMS Category Code:	TVM
HPV Status:	Not Reported

US AIRS (AFS):

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	MACT Standards (40 CFR Part 63)
Activity Date:	2008-03-05 00:00:00
Activity Status Date:	2008-04-03 17:10:01
Activity Group:	Compliance Monitoring

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	MACT Standards (40 CFR Part 63)
Activity Date:	2008-03-05 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	1984-08-21 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	1985-01-11 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	1986-03-21 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	1987-05-22 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	1987-11-03 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	1988-11-03 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	1989-11-20 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	New Source Review Permit Requirements
Activity Date:	1990-11-19 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	1991-12-12 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	1993-11-30 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	2012-02-28 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	2012-07-05 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	2012-07-06 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	2013-03-12 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	2013-10-08 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	2014-02-27 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	2014-03-07 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	2014-05-13 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	2014-05-14 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	New Source Review Permit Requirements
Activity Date:	2014-05-15 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	Not Reported
Activity Status Date:	1999-03-05 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	Not Reported
Activity Status Date:	2008-09-24 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	Not Reported
Activity Status Date:	2009-09-02 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	Not Reported
Activity Status Date:	2009-12-17 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	Not Reported
Activity Status Date:	2013-01-31 00:00:00
Activity Group:	Case File

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	Not Reported
Activity Status Date:	2013-12-17 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	Not Reported
Activity Status Date:	2014-08-28 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2015-02-10 00:00:00
Activity Status Date:	2015-03-03 17:58:17
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2015-05-27 00:00:00
Activity Status Date:	2015-06-03 16:08:29
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2015-05-27 00:00:00
Activity Status Date:	2015-06-03 16:15:03
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2016-02-11 00:00:00
Activity Status Date:	2016-05-06 12:08:28
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2016-02-27 00:00:00
Activity Status Date:	2016-05-06 12:07:30
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2016-05-18 00:00:00
Activity Status Date:	2016-05-24 16:14:33
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2016-05-18 00:00:00
Activity Status Date:	2016-05-24 16:15:49
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1978-12-15 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1979-06-27 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1980-05-21 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1980-06-17 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1981-05-21 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1981-06-26 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1982-06-13 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1983-03-30 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1983-12-12 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1984-08-21 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1985-01-11 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1986-03-21 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1987-01-16 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1987-05-22 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1987-11-03 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1988-11-03 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1989-11-20 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1990-11-19 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1991-12-12 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1992-12-30 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1993-11-30 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1995-11-06 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1997-08-14 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2007-02-24 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2007-08-21 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2007-09-21 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2008-02-18 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2008-07-07 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2009-02-27 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2009-07-23 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2009-08-25 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2009-09-30 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2009-12-16 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2010-05-15 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2010-05-26 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2010-06-03 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-02-15 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-03-01 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-05-25 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-05-26 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2012-02-28 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2012-07-05 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2012-07-06 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2012-09-11 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2012-12-03 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2013-03-01 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2013-03-12 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2013-04-02 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2013-06-26 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2013-10-08 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2014-02-27 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2014-03-07 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2014-05-13 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2014-05-14 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2014-05-15 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1998-10-09 00:00:00
Activity Status Date:	1998-10-09 00:00:00
Activity Group:	Enforcement Action

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2008-07-08 00:00:00
Activity Status Date:	2008-07-08 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2008-07-15 00:00:00
Activity Status Date:	2008-07-15 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2009-06-26 00:00:00
Activity Status Date:	2009-06-26 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-09-15 00:00:00
Activity Status Date:	2011-09-15 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2013-09-15 00:00:00
Activity Status Date:	2013-09-15 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2014-02-06 00:00:00
Activity Status Date:	2014-02-06 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1998-09-18 00:00:00
Activity Status Date:	1998-09-18 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2008-04-25 00:00:00
Activity Status Date:	2008-04-25 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2008-05-07 00:00:00
Activity Status Date:	2008-05-07 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2008-11-13 00:00:00
Activity Status Date:	2008-11-13 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-06-01 00:00:00
Activity Status Date:	2011-06-01 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2013-05-10 00:00:00
Activity Status Date:	2013-05-10 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2013-09-18 00:00:00
Activity Status Date:	2013-09-18 00:00:00
Activity Group:	Enforcement Action

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	Not Reported
Activity Status Date:	2001-03-07 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	Not Reported
Activity Status Date:	2008-09-24 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	Not Reported
Activity Status Date:	2009-09-02 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	Not Reported
Activity Status Date:	2009-12-17 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	Not Reported
Activity Status Date:	2013-01-31 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	Not Reported
Activity Status Date:	2013-12-17 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	Not Reported
Activity Status Date:	2014-08-28 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-10-08 00:00:00
Activity Status Date:	2015-06-03 16:12:48
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	Title V Permits
Activity Date:	2014-11-17 00:00:00
Activity Status Date:	2015-06-03 16:14:08
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2015-02-10 00:00:00
Activity Status Date:	2015-03-03 17:58:17
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2015-02-27 00:00:00
Activity Status Date:	2015-06-03 16:10:43
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2015-05-27 00:00:00
Activity Status Date:	2015-06-03 16:08:29
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2015-05-27 00:00:00
Activity Status Date:	2015-06-03 16:15:03
Activity Group:	Compliance Monitoring

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2016-02-11 00:00:00
Activity Status Date:	2016-05-06 12:08:28
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2016-02-27 00:00:00
Activity Status Date:	2016-05-06 12:07:30
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2016-05-18 00:00:00
Activity Status Date:	2016-05-24 16:14:33
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2016-05-18 00:00:00
Activity Status Date:	2016-05-24 16:15:49
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	1997-08-14 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	1999-12-21 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2001-04-17 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2005-03-01 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	Title V Permits
Activity Date:	2006-03-01 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2007-02-24 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2007-08-21 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2007-09-21 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2008-02-18 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2008-07-07 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2009-02-27 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2009-07-23 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2009-08-25 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2009-09-30 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2009-12-16 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2010-05-15 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2010-05-26 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	Title V Permits
Activity Date:	2010-06-03 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2011-02-15 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2011-03-01 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2011-05-25 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2011-05-26 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2012-02-28 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2012-07-05 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2012-07-06 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2012-09-11 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2012-12-03 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-03-01 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-03-12 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-04-02 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported

Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	Title V Permits
Activity Date:	2013-06-26 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-10-08 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-02-27 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-03-07 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-05-13 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-05-14 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-05-15 00:00:00
Activity Status Date:	Not Reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not Reported
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2000-04-15 00:00:00
Activity Status Date:	2000-04-15 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2008-07-08 00:00:00
Activity Status Date:	2008-07-08 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2008-07-15 00:00:00
Activity Status Date:	2008-07-15 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2009-06-26 00:00:00
Activity Status Date:	2009-06-26 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2011-09-15 00:00:00
Activity Status Date:	2011-09-15 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-09-15 00:00:00
Activity Status Date:	2013-09-15 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Air Program:	Title V Permits
Activity Date:	2014-02-06 00:00:00
Activity Status Date:	2014-02-06 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2000-02-01 00:00:00
Activity Status Date:	2000-02-01 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2008-04-25 00:00:00
Activity Status Date:	2008-04-25 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2008-05-07 00:00:00
Activity Status Date:	2008-05-07 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2008-11-13 00:00:00
Activity Status Date:	2008-11-13 00:00:00
Activity Group:	Enforcement Action

TXI RIVERSIDE CEMENT CO - CRESTMORE PLT, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2011-06-01 00:00:00
Activity Status Date:	2011-06-01 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-05-10 00:00:00
Activity Status Date:	2013-05-10 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved
Region Code:	09
Programmatic ID:	AIR CASCA0000606500003
Facility Registry ID:	110001199587
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-09-18 00:00:00
Activity Status Date:	2013-09-18 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved

RIVERSIDE CEMENT COMPANY- CRESTMORE FACILITY 1500 RUBIDOUX BLVD, RIVERSIDE, CA, 92509		A100423904
▲ A12	Target Property 982 ft. Above Sea Level	State and tribal registered storage tank lists

Worksheet:

AST: State and tribal registered storage tank lists

Certified Unified Program Agencies:	Not Reported
Owner:	Riverside Cement Company

RIVERSIDE CEMENT COMPANY- CRESTMORE FACILITY, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Total Gallons:	Not Reported
CERSID:	10470340
Facility ID:	Not Reported
Business Name:	RIVERSIDE CEMENT COMPANY
Phone:	951-774-2500
Fax:	Not Reported
Mailing Address:	245 Ward Road
Mailing Address City:	Midlothian
Mailing Address State:	TX
Mailing Address Zip Code:	76065
Operator Name:	Riverside Cement Company
Operator Phone:	951-774-2500
Owner Phone:	760-617-8141
Owner Mail Address:	245 Ward Road
Owner State:	TX
Owner Zip Code:	76065
Owner Country:	United States
Property Owner Name:	Not Reported
Property Owner Phone:	Not Reported
Property Owner Mailing Address:	Not Reported
Property Owner City:	Not Reported
Property Owner Stat :	Not Reported
Property Owner Zip Code:	Not Reported
Property Owner Country:	Not Reported
EPAID:	CAD063844443

RIVERSIDE CEMENT COMPANY - CRESTMORE PLANT 1500 RUBIDOUX BLVD., RIVERSIDE, CA, 92509		1014200494
▲ A13	Target Property 982 ft. Above Sea Level	Other Ascertainable Records

Worksheet:

RIVERSIDE CEMENT CRESTMORE PLANT 1500 RUBIDOUX BLVD., RIVERSIDE, CA,		A100108116
▲ A14	Target Property 982 ft. Above Sea Level	State and tribal registered storage tank lists

Worksheet:

AST: State and tribal registered storage tank lists

Certified Unified Program Agencies:	Riverside
Owner:	RIVERSIDE CEMENT COMPANY
Total Gallons:	5,000
CERSID:	Not Reported
Facility ID:	Not Reported
Business Name:	Not Reported

RIVERSIDE CEMENT CRESTMORE PLANT, 1500 RUBIDOUX BLVD., RIVERSIDE, CA (Continued)

Phone:	Not Reported
Fax:	Not Reported
Mailing Address:	Not Reported
Mailing Address City:	Not Reported
Mailing Address State:	Not Reported
Mailing Address Zip Code:	Not Reported
Operator Name:	Not Reported
Operator Phone:	Not Reported
Owner Phone:	Not Reported
Owner Mail Address:	Not Reported
Owner State:	Not Reported
Owner Zip Code:	Not Reported
Owner Country:	Not Reported
Property Owner Name:	Not Reported
Property Owner Phone:	Not Reported
Property Owner Mailing Address:	Not Reported
Property Owner City:	Not Reported
Property Owner Stat :	Not Reported
Property Owner Zip Code:	Not Reported
Property Owner Country:	Not Reported
EPAID:	Not Reported

BRINE FAC AND STP 1500 RUBIDOUX, RIVERSIDE, CA, 92509		1023253185
▲ A15	Target Property 982 ft. Above Sea Level	Other Ascertainable Records

Worksheet:

FINDS: Other Ascertainable Records

Registry ID: 110065419862

Environmental Interest/Information System:

STATE MASTER

The FINDS: database contains 0 additional records for this site. Please contact your EDR Account Executive for more information.

RIVERSIDE CEMENT CO (EIS USE) 1500 RUBIDOUX BLVD, RIVERSIDE, CA, 92509		S103443287
▲ A16	Target Property 982 ft. Above Sea Level	State- and tribal - equivalent CERCLIS State and tribal leaking storage tank lists Local Lists of Landfill / Solid Waste Disposal Sites Other Ascertainable Records

Worksheet:

ENVIROSTOR: State- and tribal - equivalent CERCLIS

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Facility ID:	33140002
Status:	Refer: RWQCB
Status Date:	01/11/2011
Site Code:	401056
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	10
NPL:	NO
Regulatory Agencies:	US EPA
Lead Agency:	US EPA
Program Manager:	Not Reported
Supervisor:	Eileen Mananian
Division Branch:	Cleanup Cypress
Assembly:	60
Senate:	31
Special Program:	EPA - PASI
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not Reported
Latitude:	34.03354
Longitude:	-117.3898
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	Polychlorinated biphenyls (PCBs Chromium VI
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD063844443
Alias Type:	EPA Identification Number
Alias Name:	401056
Alias Type:	Project Code (Site Code)
Alias Name:	33140002
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	* Discovery
Completed Date:	10/12/1983
Comments:	FACILITY IDENTIFIED ID FROM ERRIS
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	* Discovery
Completed Date:	04/25/1983
Comments:	FACILITY IDENTIFIED ID FROM REGION 9 EMS DATABASE
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Site Screening
Completed Date:	04/11/1995
Comments:	NFA FOR DTSC.

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Site Screening
Completed Date:	05/19/1989
Comments:	SITE SCREENING DONE FIT PA REASSESSMENT COMPLETED 8/2/88 RECOMMENDED HIGH PRIORITY SSI UNDER CERCLA; DHS CONCURS WITH RECOMMENDATION
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Preliminary Assessment Report
Completed Date:	06/01/1984
Comments:	T/C W/ MALLORY S.MAY,GIFFORD HILL CO,214 -258-7175, 7/16/84 -1)SOURCE ACT: KLIN FIRED, CEMENT MFG 2)YR OF OPER: 1914 TO PRESENT. WASTE: CR CONTMN KILN BRICK. USED KILN BRICK WAS DISP IN A LDFL FROM 1955 TO 1979. SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	Site Screening
Completed Date:	06/06/2007
Comments:	Site Screening approved by EPA. "OCA Start".
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not Reported
Completed Document Type:	PA/SI Reassessment
Completed Date:	05/18/2009
Comments:	Not Reported
Future Area Name:	Not Reported
Future Sub Area Name:	Not Reported
Future Document Type:	Not Reported
Future Due Date:	Not Reported
Schedule Area Name:	Not Reported
Schedule Sub Area Name:	Not Reported
Schedule Document Type:	Not Reported
Schedule Due Date:	Not Reported
Schedule Revised Date:	Not Reported

LUST: State and tribal leaking storage tank lists

Lead Agency:	RIVERSIDE COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500166
Global Id:	T0606500166
Latitude:	34.0308386890794
Longitude:	-117.388611886578
Status:	Completed - Case Closed
Status Date:	11/05/1991
Case Worker:	SCB
RB Case Number:	083301366T
Local Agency:	RIVERSIDE COUNTY LOP

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

File Location:	Local Agency Warehouse
Local Case Number:	89210
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Heating Oil / Fuel Oil
Site History:	Not Reported

LUST:

Global Id:	T0606500166
Contact Type:	Local Agency Caseworker
Contact Name:	SHARON BOLTINGHOUSE
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	sbolting@rivco.org
Phone Number:	9519558980

LUST:

Global Id:	T0606500166
Action Type:	ENFORCEMENT
Date:	11/04/1991
Action:	File review - #RCDEH Upload Site File 10/15/2015
Global Id:	T0606500166
Action Type:	Other
Date:	11/01/1987
Action:	Leak Reported
Global Id:	T0606500166
Action Type:	ENFORCEMENT
Date:	11/05/1991
Action:	Closure/No Further Action Letter - #RCDEH1105
Global Id:	T0606500166
Action Type:	REMEDIATION
Date:	03/01/1989
Action:	Excavation

LUST:

Global Id:	T0606500166
Status:	Open - Case Begin Date
Status Date:	11/01/1987
Global Id:	T0606500166
Status:	Open - Site Assessment
Status Date:	11/01/1987
Global Id:	T0606500166
Status:	Open - Site Assessment
Status Date:	02/29/1988
Global Id:	T0606500166
Status:	Open - Remediation

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Status Date:	03/01/1989
Global Id:	T0606500166
Status:	Completed - Case Closed
Status Date:	11/05/1991

WMUDS/SWAT: Local Lists of Landfill / Solid Waste Disposal Sites

Edit Date:	Not Reported
Complexity:	Not Reported
Primary Waste:	DOMIND
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste:	Not Reported
Secondary Waste Type:	Not Reported
Base Meridian:	Not Reported
NPID:	Not Reported
Tonnage:	0
Regional Board ID:	Not Reported
Municipal Solid Waste:	False
Superorder:	False
Open To Public:	False
Waste List:	False
Agency Type:	Private
Agency Name:	RIVERSIDE CEMENT COMPANY
Agency Department:	Not Reported
Agency Address:	PO BOX 832
Agency City,St,Zip:	RIVERSIDE CA 92502
Agency Contact:	Not Reported
Agency Telephone:	9096833660
Land Owner Name:	Not Reported
Land Owner Address:	Not Reported
Land Owner City,St,Zip:	Not Reported
Land Owner Contact:	Not Reported
Land Owner Phone:	Not Reported
Region:	8
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Description:	Not Reported
Facility Telephone:	Not Reported
SWAT Facility Name:	Not Reported
Primary SIC:	3241
Secondary SIC:	Not Reported
Comments:	Not Reported
Last Facility Editors:	Not Reported
Waste Discharge System:	True
Solid Waste Assessment Test Program:	False
Toxic Pits Cleanup Act Program:	False

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Resource Conservation Recovery Act:	False
Department of Defence:	False
Solid Waste Assessment Test Program:	Not Reported
Threat to Water Quality:	Not Reported
Sub Chapter 15:	True
Regional Board Project Officer:	Not Reported
Number of WMUDS at Facility:	0
Section Range:	Not Reported
RCRA Facility:	No
Waste Discharge Requirements:	H
Self-Monitoring Rept. Frequency:	Quarterly Submittal
Waste Discharge System ID:	8 332000001
Solid Waste Information ID:	Not Reported

EMI: Other Ascertainable Records

Year:	1996
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3255
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	39
NOX - Oxides of Nitrogen Tons/Yr:	149
SOX - Oxides of Sulphur Tons/Yr:	66
Particulate Matter Tons/Yr:	54
Part. Matter 10 Micrometers and Smllr Tons/Yr:	50

Year:	2002
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	73

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	2003
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	73
SOX - Oxides of Sulphur Tons/Yr:	1
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0
Year:	2004
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.289508
Reactive Organic Gases Tons/Yr:	0.26
Carbon Monoxide Emissions Tons/Yr:	0.75097
NOX - Oxides of Nitrogen Tons/Yr:	72.6925
SOX - Oxides of Sulphur Tons/Yr:	1.208824
Particulate Matter Tons/Yr:	0.05006
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.05
Year:	2005
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.57899
Reactive Organic Gases Tons/Yr:	1.256253035
Carbon Monoxide Emissions Tons/Yr:	11.3
NOX - Oxides of Nitrogen Tons/Yr:	73.2
SOX - Oxides of Sulphur Tons/Yr:	4.86
Particulate Matter Tons/Yr:	62.3104
Part. Matter 10 Micrometers and Smllr Tons/Yr:	33.9260864
Year:	2006
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.049977653408348326
Reactive Organic Gases Tons/Yr:	.83
Carbon Monoxide Emissions Tons/Yr:	2.323
NOX - Oxides of Nitrogen Tons/Yr:	61.961
SOX - Oxides of Sulphur Tons/Yr:	2.599
Particulate Matter Tons/Yr:	106.956
Part. Matter 10 Micrometers and Smllr Tons/Yr:	97.99428
Year:	2007
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.043561845063478607
Reactive Organic Gases Tons/Yr:	.83
Carbon Monoxide Emissions Tons/Yr:	2.323
NOX - Oxides of Nitrogen Tons/Yr:	61.961
SOX - Oxides of Sulphur Tons/Yr:	2.599
Particulate Matter Tons/Yr:	106.956
Part. Matter 10 Micrometers and Smllr Tons/Yr:	97.99428

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Year:	2008
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	.7269285903408251728
Reactive Organic Gases Tons/Yr:	.326309126
Carbon Monoxide Emissions Tons/Yr:	.4
NOX - Oxides of Nitrogen Tons/Yr:	10.94
SOX - Oxides of Sulphur Tons/Yr:	2.52
Particulate Matter Tons/Yr:	17.768865875
Part. Matter 10 Micrometers and Smllr Tons/Yr:	16.365356605

Year:	2012
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.042662419163
Reactive Organic Gases Tons/Yr:	0.02969
Carbon Monoxide Emissions Tons/Yr:	0.11428
NOX - Oxides of Nitrogen Tons/Yr:	0.37817
SOX - Oxides of Sulphur Tons/Yr:	0.00194
Particulate Matter Tons/Yr:	4.11788
Part. Matter 10 Micrometers and Smllr Tons/Yr:	3.78922912

Year:	2013
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Total Organic Hydrocarbon Gases Tons/Yr:	4.1434347314e-005
Reactive Organic Gases Tons/Yr:	2.8523e-005
Carbon Monoxide Emissions Tons/Yr:	7.3451e-005
NOX - Oxides of Nitrogen Tons/Yr:	0.00019883
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0.003042273
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0.001221835008

Year:	2014
County Code:	33
Air Basin:	SC
Facility ID:	800182
Air District Name:	SC
SIC Code:	3241
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not Reported
Consolidated Emission Reporting Rule:	Not Reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.026101689543
Reactive Organic Gases Tons/Yr:	0.02511
Carbon Monoxide Emissions Tons/Yr:	0.03163
NOX - Oxides of Nitrogen Tons/Yr:	0.02527
SOX - Oxides of Sulphur Tons/Yr:	9e-005
Particulate Matter Tons/Yr:	6.626795
Part. Matter 10 Micrometers and Smllr Tons/Yr:	2.660097

HIST CORTESE: Other Ascertainable Records

Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	083301366T

NPDES: Other Ascertainable Records

Npdes Number:	CAS000001
Facility Status:	Terminated
Agency Id:	0
Region:	8
Regulatory Measure Id:	210701
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not Reported
WDID:	8 33I002053
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not Reported
Effective Date Of Regulatory Measure:	03/30/1992

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Expiration Date Of Regulatory Measure:	Not Reported
Termination Date Of Regulatory Measure:	06/24/2016
Discharge Name:	TXI Riverside Cement Company
Discharge Address:	PO Box 146
Discharge City:	Oro Grande
Discharge State:	California
Discharge Zip:	92368
RECEIVED DATE:	Not Reported
PROCESSED DATE:	Not Reported
STATUS CODE NAME:	Not Reported
STATUS DATE:	Not Reported
PLACE SIZE:	Not Reported
PLACE SIZE UNIT:	Not Reported
FACILITY CONTACT NAME:	Not Reported
FACILITY CONTACT TITLE:	Not Reported
FACILITY CONTACT PHONE:	Not Reported
FACILITY CONTACT PHONE EXT:	Not Reported
FACILITY CONTACT EMAIL:	Not Reported
OPERATOR NAME:	Not Reported
OPERATOR ADDRESS:	Not Reported
OPERATOR CITY:	Not Reported
OPERATOR STATE:	Not Reported
OPERATOR ZIP:	Not Reported
OPERATOR CONTACT NAME:	Not Reported
OPERATOR CONTACT TITLE:	Not Reported
OPERATOR CONTACT PHONE:	Not Reported
OPERATOR CONTACT PHONE EXT:	Not Reported
OPERATOR CONTACT EMAIL:	Not Reported
OPERATOR TYPE:	Not Reported
DEVELOPER NAME:	Not Reported
DEVELOPER ADDRESS:	Not Reported
DEVELOPER CITY:	Not Reported
DEVELOPER STATE:	Not Reported
DEVELOPER ZIP:	Not Reported
DEVELOPER CONTACT NAME:	Not Reported
DEVELOPER CONTACT TITLE:	Not Reported
CONSTYPE LINEAR UTILITY IND:	Not Reported
EMERGENCY PHONE NO:	Not Reported
EMERGENCY PHONE EXT:	Not Reported
CONSTYPE ABOVE GROUND IND:	Not Reported
CONSTYPE BELOW GROUND IND:	Not Reported
CONSTYPE CABLE LINE IND:	Not Reported
CONSTYPE COMM LINE IND:	Not Reported
CONSTYPE COMMERTIAL IND:	Not Reported
CONSTYPE ELECTRICAL LINE IND:	Not Reported
CONSTYPE GAS LINE IND:	Not Reported
CONSTYPE INDUSTRIAL IND:	Not Reported
CONSTYPE OTHER DESRIPTION:	Not Reported

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

CONSTYPE OTHER IND:	Not Reported
CONSTYPE RECONS IND:	Not Reported
CONSTYPE RESIDENTIAL IND:	Not Reported
CONSTYPE TRANSPORT IND:	Not Reported
CONSTYPE UTILITY DESCRIPTION:	Not Reported
CONSTYPE UTILITY IND:	Not Reported
CONSTYPE WATER SEWER IND:	Not Reported
DIR DISCHARGE USWATER IND:	Not Reported
RECEIVING WATER NAME:	Not Reported
CERTIFIER NAME:	Not Reported
CERTIFIER TITLE:	Not Reported
CERTIFICATION DATE:	Not Reported
PRIMARY SIC:	Not Reported
SECONDARY SIC:	Not Reported
TERTIARY SIC:	Not Reported
Npdes Number:	Not Reported
Facility Status:	Not Reported
Agency Id:	Not Reported
Region:	8
Regulatory Measure Id:	210701
Order No:	Not Reported
Regulatory Measure Type:	Industrial
Place Id:	Not Reported
WDID:	8 33I002053
Program Type:	Not Reported
Adoption Date Of Regulatory Measure:	Not Reported
Effective Date Of Regulatory Measure:	Not Reported
Expiration Date Of Regulatory Measure:	Not Reported
Termination Date Of Regulatory Measure:	06/24/2016
Discharge Name:	Not Reported
Discharge Address:	Not Reported
Discharge City:	Not Reported
Discharge State:	Not Reported
Discharge Zip:	Not Reported
RECEIVED DATE:	05/09/2008
PROCESSED DATE:	03/30/1992
STATUS CODE NAME:	Terminated
STATUS DATE:	08/03/2016
PLACE SIZE:	294
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Stewart Minter
FACILITY CONTACT TITLE:	Operations Manager
FACILITY CONTACT PHONE:	951-774-2519
FACILITY CONTACT PHONE EXT:	Not Reported
FACILITY CONTACT EMAIL:	stewart.minter@martinmarietta.com
OPERATOR NAME:	TXI Riverside Cement Company
OPERATOR ADDRESS:	PO Box 146

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

OPERATOR CITY:	Oro Grande
OPERATOR STATE:	California
OPERATOR ZIP:	92368
OPERATOR CONTACT NAME:	Kevin Grogan
OPERATOR CONTACT TITLE:	General Manager
OPERATOR CONTACT PHONE:	760-245-5321
OPERATOR CONTACT PHONE EXT:	5283
OPERATOR CONTACT EMAIL:	kevin.grogan@martinmarietta.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not Reported
DEVELOPER ADDRESS:	Not Reported
DEVELOPER CITY:	Not Reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not Reported
DEVELOPER CONTACT NAME:	Not Reported
DEVELOPER CONTACT TITLE:	Not Reported
CONSTYPE LINEAR UTILITY IND:	Not Reported
EMERGENCY PHONE NO:	951-201-5238
EMERGENCY PHONE EXT:	Not Reported
CONSTYPE ABOVE GROUND IND:	Not Reported
CONSTYPE BELOW GROUND IND:	Not Reported
CONSTYPE CABLE LINE IND:	Not Reported
CONSTYPE COMM LINE IND:	Not Reported
CONSTYPE COMMERTIAL IND:	Not Reported
CONSTYPE ELECTRICAL LINE IND:	Not Reported
CONSTYPE GAS LINE IND:	Not Reported
CONSTYPE INDUSTRIAL IND:	Not Reported
CONSTYPE OTHER DESRIPTION:	Not Reported
CONSTYPE OTHER IND:	Not Reported
CONSTYPE RECONS IND:	Not Reported
CONSTYPE RESIDENTIAL IND:	Not Reported
CONSTYPE TRANSPORT IND:	Not Reported
CONSTYPE UTILITY DESCRIPTION:	Not Reported
CONSTYPE UTILITY IND:	Not Reported
CONSTYPE WATER SEWER IND:	Not Reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Santa Ana River
CERTIFIER NAME:	David Perkins
CERTIFIER TITLE:	General Manager
CERTIFICATION DATE:	24-JUN-16
PRIMARY SIC:	3241-Cement, Hydraulic
SECONDARY SIC:	Not Reported
TERTIARY SIC:	Not Reported

WDS: Other Ascertainable Records

Facility ID:	Santa Ana River 33I002053
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.

RIVERSIDE CEMENT CO (EIS USE), 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not Reported
Facility Contact:	Not Reported
Agency Name:	RIVERSIDE CEMENT COMPANY
Agency Address:	PO BOX 832
Agency City,St,Zip:	RIVERSIDE 92502
Agency Contact:	RICHARD BALL
Agency Telephone:	9096833660
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not Reported
Primary Waste Type:	Not Reported
Primary Waste:	Not Reported
Waste Type2:	Not Reported
Waste2:	Not Reported
Primary Waste Type:	Not Reported
Secondary Waste:	Not Reported
Secondary Waste Type:	Not Reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not Reported
POTW:	Not Reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CRESTMORE QUARRY 1500 RUBIDOUX BLVD, RIVERSIDE, CA, 92509		1022836166
▲ A17	Target Property 982 ft. Above Sea Level	Other Ascertainable Records

Worksheet:

ABANDONED MINES: Other Ascertainable Records

Mine ID:	0400010
Mine Type:	Facility
Mine Status Description:	Abandoned
Mine Status Date:	2015-11-01 00:00:00
Coal (C) or Metal (M) Mine:	M
Controller ID:	M00174
Controller Name:	Martin Marietta Materials Inc
Operator ID:	L15861

CRESTMORE QUARRY, 1500 RUBIDOUX BLVD, RIVERSIDE, CA 92509 (Continued)

Operator name:	Riverside Cement Co
Address of Record Street:	1500 Rubidoux Blvd
Address of Record PO Box:	Not Reported
Address of Record City:	Riverside
Address of Record State:	CA
Address of Record Zip Code:	92509
Assessment Address Street:	Not Reported
Assessment Address PO Box:	832
Assessment Address City:	RIVERSIDE
Assessment Address State:	CA
Assessment Address Zip Code:	925020832
Mine Health and Safety Address Street:	Not Reported
Mine Health and Safety Address PO Box:	832
Mine Health and Safety Address City:	Riverside
Mine Health and Safety Address State:	CA
Mine Health and Safety Address Zip Code:	92502
Latitude:	34.033889
Longitude:	117.390278

RIVERSIDE CEMENT COMPANY- CRESTMORE FACILITY 1500 RUBIDOUX BLVD, RIVERSIDE, CA, 92509		1023305084
▲ A18	Target Property 982 ft. Above Sea Level	Other Ascertainable Records

Worksheet:

FINDS: Other Ascertainable Records

Registry ID: 110065974994

Environmental Interest/Information System:

STATE MASTER

The FINDS: database contains 0 additional records for this site. Please contact your EDR Account Executive for more information.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
ENVIRONMENTAL RECORDS						
Federal NPL site list						
US	NPL	National Priority List	EPA	12/11/2017	12/22/2017	01/05/2018
US	Proposed NPL	Proposed National Priority List Sites	EPA	12/11/2017	12/22/2017	01/05/2018
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
Federal CERCLIS list						
US	SEMS	Superfund Enterprise Management System	EPA	01/09/2018	02/06/2018	04/13/2018
Federal RCRA CORRACTS facilities list						
US	CORRACTS	Corrective Action Report	EPA	12/11/2017	12/26/2017	02/09/2018
Federal RCRA TSD facilities list						
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	12/11/2017	12/26/2017	02/09/2018
Federal RCRA generators list						
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	12/11/2017	12/26/2017	02/09/2018
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	12/11/2017	12/26/2017	02/09/2018
US	RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generators	Environmental Protection Agency	12/11/2017	12/26/2017	02/09/2018
Federal institutional controls / engineering controls registries						
US	LUCIS	Land Use Control Information System	Department of the Navy	05/22/2017	06/13/2017	09/15/2017
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	11/13/2017	11/27/2017	02/09/2018
US	US INST CONTROL	Sites with Institutional Controls	Environmental Protection Agency	11/13/2017	11/27/2017	02/09/2018
Federal ERNS list						
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	01/16/2018	01/19/2018	03/23/2018
State and tribal - equivalent NPL						
CA	RESPONSE	State Response Sites	Department of Toxic Substances Control	01/30/2018	01/31/2018	03/19/2018
State and tribal - equivalent CERCLIS						
CA	ENVIROSTOR	EnviroStor Database	Department of Toxic Substances Control	01/30/2018	01/31/2018	03/19/2018
State and tribal landfill / solid waste disposal						
CA	SWF/LF (SWIS)	Solid Waste Information System	Department of Resources Recycling and Recover	02/12/2018	02/14/2018	04/03/2018
State and tribal leaking storage tank lists						
CA	LUST REG 6L	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	09/09/2003	09/10/2003	10/07/2003
CA	LUST REG 6V	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	06/07/2005	06/07/2005	06/29/2005
CA	LUST REG 5	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	07/01/2008	07/22/2008	07/31/2008
CA	LUST REG 4	Underground Storage Tank Leak List	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	LUST REG 3	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	05/19/2003	05/19/2003	06/02/2003
CA	LUST REG 2	Fuel Leak List	California Regional Water Quality Control Boa	09/30/2004	10/20/2004	11/19/2004
CA	LUST REG 1	Active Toxic Site Investigation	California Regional Water Quality Control Boa	02/01/2001	02/28/2001	03/29/2001

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	LUST REG 7	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	02/26/2004	02/26/2004	03/24/2004
CA	LUST REG 8	Leaking Underground Storage Tanks	California Regional Water Quality Control Boa	02/14/2005	02/15/2005	03/28/2005
CA	LUST	Leaking Underground Fuel Tank Report (GEOTRACKER)	State Water Resources Control Board	03/12/2018	03/14/2018	03/21/2018
CA	LUST REG 9	Leaking Underground Storage Tank Report	California Regional Water Quality Control Boa	03/01/2001	04/23/2001	05/21/2001
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	01/06/2018	01/23/2018	04/13/2018
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	10/14/2017	01/23/2018	04/13/2018
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	10/14/2017	01/23/2018	04/13/2018
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	10/24/2017	01/23/2018	04/13/2018
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	10/16/2017	01/23/2018	04/13/2018
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	10/12/2017	01/23/2018	04/13/2018
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	10/12/2017	01/23/2018	04/13/2018
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	09/30/2017	01/23/2018	04/13/2018
CA	SLIC	Statewide SLIC Cases (GEOTRACKER)	State Water Resources Control Board	03/12/2018	03/14/2018	03/21/2018
CA	SLIC REG 1	Active Toxic Site Investigations	California Regional Water Quality Control Boa	04/03/2003	04/07/2003	04/25/2003
CA	SLIC REG 2	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board San Fran	09/30/2004	10/20/2004	11/19/2004
CA	SLIC REG 3	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	05/18/2006	05/18/2006	06/15/2006
CA	SLIC REG 4	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Region Water Quality Control Board Los Angele	11/17/2004	11/18/2004	01/04/2005
CA	SLIC REG 5	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board Central	04/01/2005	04/05/2005	04/21/2005
CA	SLIC REG 6V	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board, Victorv	05/24/2005	05/25/2005	06/16/2005
CA	SLIC REG 6L	SLIC Sites	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	SLIC REG 7	SLIC List	California Regional Quality Control Board, Co	11/24/2004	11/29/2004	01/04/2005
CA	SLIC REG 8	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Region Water Quality Control Board	04/03/2008	04/03/2008	04/14/2008
CA	SLIC REG 9	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	09/10/2007	09/11/2007	09/28/2007
State and tribal registered storage tank lists						
CA	UST	Active UST Facilities	SWRCB	03/12/2018	03/14/2018	03/29/2018
CA	UST MENDOCINO	Mendocino County UST Database	Department of Public Health	02/28/2018	03/01/2018	03/28/2018
CA	AST	Aboveground Petroleum Storage Tank Facilities	California Environmental Protection Agency	07/06/2016	07/12/2016	09/19/2016
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	01/13/2018	01/23/2018	04/13/2018
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	10/14/2017	01/23/2018	04/13/2018
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	10/16/2017	01/23/2018	04/13/2018
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	10/14/2017	01/23/2018	04/13/2018
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	04/24/2017	07/27/2017	12/08/2017
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	10/24/2017	01/23/2018	04/13/2018
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	09/30/2017	01/23/2018	04/13/2018
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	10/12/2017	01/23/2018	04/13/2018
US	FEMA UST	Underground Storage Tank Listing	FEMA	05/15/2017	05/30/2017	10/13/2017
State and tribal voluntary cleanup sites						
CA	VCP	Voluntary Cleanup Program Properties	Department of Toxic Substances Control	01/30/2018	01/31/2018	03/19/2018
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
State and tribal Brownfields sites						
CA	BROWNFIELDS	Considered Brownfieds Sites Listing	State Water Resources Control Board	12/22/2017	12/26/2017	01/31/2018
Other Records						
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	12/31/2017	01/24/2018	04/13/2018
US	ROD	Records Of Decision	EPA	12/11/2017	12/22/2017	01/12/2018
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	12/11/2017	12/22/2017	01/12/2018
CA	HIST CAL-SITES	Calsites Database	Department of Toxic Substance Control	08/08/2005	08/03/2006	08/24/2006
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
CA	SWRCY	Recycler Database	Department of Conservation	12/11/2017	12/12/2017	01/17/2018
CA	CA FID UST	Facility Inventory Database	California Environmental Protection Agency	10/31/1994	09/05/1995	09/29/1995
CA	HIST UST	Hazardous Substance Storage Container Database	State Water Resources Control Board	10/15/1990	01/25/1991	02/12/1991
CA	SWEEPS UST	SWEEPS UST Listing	State Water Resources Control Board	06/01/1994	07/07/2005	08/11/2005
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2005	08/07/2009	10/22/2009
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	07/01/2014	09/10/2014	10/20/2014
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	01/19/2018	01/24/2018	02/09/2018
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	01/09/2018	02/06/2018	03/02/2018
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	04/22/2013	03/03/2015	03/09/2015
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	05/24/2017	11/30/2017	12/15/2017
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	12/23/2016	12/27/2016	02/17/2017
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	01/11/2018	01/19/2018	03/02/2018
US	Delisted NPL	National Priority List Deletions	EPA	12/11/2017	12/22/2017	01/05/2018
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	01/09/2018	02/06/2018	04/13/2018
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	12/11/2017	12/26/2017	02/09/2018
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	01/19/2018	01/19/2018	03/23/2018
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	07/31/2012	08/07/2012	09/18/2012
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	01/09/2018	01/24/2018	02/09/2018
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	01/19/2018	01/19/2018	02/09/2018
US	DOD	Department of Defense Sites	USGS	12/31/2005	11/10/2006	01/11/2007
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	12/31/2005	02/06/2006	01/11/2007
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	01/31/2015	07/08/2015	10/13/2015
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	06/23/2017	10/11/2017	11/03/2017
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	10/29/2017	11/28/2017	01/12/2018
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	12/05/2005	02/29/2008	04/18/2008
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	PRP	Potentially Responsible Parties	EPA	10/25/2013	10/17/2014	10/20/2014
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2016	01/10/2018	01/12/2018
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/21/2017	01/05/2018
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	SSTS	Section 7 Tracking Systems	EPA	12/31/2009	12/10/2010	02/25/2011
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	PADS	PCB Activity Database System	EPA	06/01/2017	06/09/2017	10/13/2017
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	08/30/2016	09/08/2016	10/21/2016
US	RADINFO	Radiation Information Database	Environmental Protection Agency	01/03/2018	01/04/2018	04/13/2018
US	FINDS	Facility Index System/Facility Registry System	EPA	02/21/2018	02/23/2018	03/23/2018
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RMP	Risk Management Plans	Environmental Protection Agency	11/02/2017	11/17/2017	12/08/2017
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2015	02/22/2017	09/28/2017
US	PWS	Public Water System Data	EPA	12/17/2013	01/09/2014	10/15/2014
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
CA	CA BOND EXP. PLAN	Bond Expenditure Plan	Department of Health Services	01/01/1989	07/27/1994	08/02/1994
CA	CDL	Clandestine Drug Labs	Department of Toxic Substances Control	06/30/2017	08/18/2017	09/21/2017
CA	CHMIRS	California Hazardous Material Incident Report System	Office of Emergency Services	02/15/2018	02/20/2018	04/03/2018
CA	CORTESE	"Cortese" Hazardous Waste & Substances Sites List	CAL EPA/Office of Emergency Information	02/08/2018	02/08/2018	02/08/2018
CA	DEED	Deed Restriction Listing	DTSC and SWRCB	02/08/2018	02/08/2018	02/08/2018
CA	DRYCLEANERS	Cleaner Facilities	Department of Toxic Substance Control	12/01/2017	02/02/2018	03/16/2018
CA	EMI	Emissions Inventory Data	California Air Resources Board	12/31/2015	03/21/2017	08/15/2017
CA	ENF	Enforcement Action Listing	State Water Resoruces Control Board	01/22/2018	01/24/2018	03/19/2018
CA	Financial Assurance 1	Financial Assurance Information Listing	Department of Toxic Substances Control	01/22/2018	01/24/2018	03/20/2018
CA	Financial Assurance 2	Financial Assurance Information Listing	California Integrated Waste Management Board	02/14/2018	02/16/2018	04/03/2018
CA	HAULERS	Registered Waste Tire Haulers Listing	Integrated Waste Management Board	02/08/2018	02/09/2018	03/20/2018
CA	HAZNET	Facility and Manifest Data	California Environmental Protection Agency	12/31/2016	07/12/2017	10/17/2017
CA	HIST CORTESE	Hazardous Waste & Substance Site List	Department of Toxic Substances Control	04/01/2001	01/22/2009	04/08/2009
CA	HWP	EnviroStor Permitted Facilities Listing	Department of Toxic Substances Control	02/20/2018	02/21/2018	04/03/2018
CA	HWT	Registered Hazardous Waste Transporter Database	Department of Toxic Substances Control	01/08/2018	01/09/2018	02/06/2018
CA	ICE	ICE	Department of Toxic Subsances Control	02/20/2018	02/21/2018	04/03/2018
CA	LDS	Land Disposal Sites Listing (GEOTRACKER)	State Water Qualilty Control Board	03/12/2018	03/14/2018	03/21/2018
CA	LIENS	Environmental Liens Listing	Department of Toxic Substances Control	01/28/2018	03/01/2018	04/16/2018
CA	MCS	Military Cleanup Sites Listing (GEOTRACKER)	State Water Resources Control Board	03/12/2018	03/14/2018	03/21/2018
CA	MINES	Mines Site Location Listing	Department of Conservation	12/11/2017	12/12/2017	01/12/2018
CA	MWMP	Medical Waste Management Program Listing	Department of Public Health	02/27/2018	03/05/2018	04/16/2018
CA	NPDES	NPDES Permits Listing	State Water Resources Control Board	02/14/2018	02/14/2018	03/15/2018
CA	PEST LIC	Pesticide Regulation Licenses Listing	Department of Pesticide Regulation	03/05/2018	03/05/2018	04/19/2018
CA	PROC	Certified Processors Database	Department of Conservation	12/11/2017	12/12/2017	01/16/2018
CA	NOTIFY 65	Proposition 65 Records	State Water Resources Control Board	12/14/2017	12/15/2017	01/16/2018
CA	SCH	School Property Evaluation Program	Department of Toxic Substances Control	01/30/2018	01/31/2018	03/19/2018
CA	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	06/06/2012	01/03/2013	02/22/2013
CA	TOXIC PITS	Toxic Pits Cleanup Act Sites	State Water Resources Control Board	07/01/1995	08/30/1995	09/26/1995
CA	UIC	UIC Listing	Deaprtment of Conservation	12/11/2017	12/12/2017	01/17/2018
CA	WASTEWATER PITS	Oil Wastewater Pits Listing	RWQCB, Central Valley Region	04/15/2015	04/17/2015	06/23/2015
CA	WDS	Waste Discharge System	State Water Resources Control Board	06/19/2007	06/20/2007	06/29/2007
CA	WIP	Well Investigation Program Case List	Los Angeles Water Quality Control Board	07/03/2009	07/21/2009	08/03/2009
CA	WMUDS/SWAT	Waste Management Unit Database	State Water Resources Control Board	04/01/2000	04/10/2000	05/10/2000

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	02/20/2018	02/21/2018	03/23/2018
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	01/13/2018	01/19/2018	03/02/2018
US	ABANDONED MINES	Abandoned Mines	Department of Interior	12/20/2017	12/21/2017	03/23/2018
US	UXO	Unexploded Ordnance Sites	Department of Defense	09/30/2016	10/31/2017	01/12/2018
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	01/04/2018	01/19/2018	04/13/2018
HISTORICAL USE RECORDS						
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
CA	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Resources Recycling and Recover		07/01/2013	01/13/2014
CA	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	State Water Resources Control Board		07/01/2013	12/30/2013
COUNTY RECORDS						
CA	CS ALAMEDA	Contaminated Sites	Alameda County Environmental Health Services	01/09/2018	01/11/2018	02/22/2018
CA	UST ALAMEDA	Underground Tanks	Alameda County Environmental Health Services	01/22/2018	01/24/2018	03/28/2018
CA	CUPA AMADOR	CUPA Facility List	Amador County Environmental Health	03/01/2018	03/05/2018	03/15/2018
CA	CUPA BUTTE	CUPA Facility Listing	Public Health Department	04/21/2017	04/25/2017	08/09/2017
CA	CUPA CALVERAS	CUPA Facility Listing	Calveras County Environmental Health	01/25/2018	01/26/2018	03/14/2018
CA	CUPA COLUSA	CUPA Facility List	Health & Human Services	02/26/2018	03/01/2018	03/15/2018
CA	SL CONTRA COSTA	Site List	Contra Costa Health Services Department	02/22/2018	02/27/2018	04/16/2018
CA	CUPA DEL NORTE	CUPA Facility List	Del Norte County Environmental Health Divisio	01/05/2018	02/02/2018	03/14/2018
CA	CUPA EL DORADO	CUPA Facility List	El Dorado County Environmental Management Dep	03/05/2018	03/08/2018	04/16/2018
CA	CUPA FRESNO	CUPA Resources List	Dept. of Community Health	03/01/2018	03/05/2018	03/14/2018
CA	CUPA GLENN	CUPA Facility List	Glenn County Air Pollution Control District	01/22/2018	01/24/2018	03/14/2018
CA	CUPA HUMBOLDT	CUPA Facility List	Humboldt County Environmental Health	08/03/2017	08/08/2017	10/16/2017
CA	CUPA IMPERIAL	CUPA Facility List	San Diego Border Field Office	01/22/2018	01/26/2018	03/14/2018
CA	CUPA INYO	CUPA Facility List	Inyo County Environmental Health Services	06/08/2017	06/09/2017	08/04/2017
CA	UST KERN	Underground Storage Tank Sites & Tank Listing	Kern County Environment Health Services Depar	02/02/2018	02/02/2018	03/28/2018
CA	CUPA KINGS	CUPA Facility List	Kings County Department of Public Health	11/14/2017	11/17/2017	12/15/2017
CA	CUPA LAKE	CUPA Facility List	Lake County Environmental Health	02/06/2018	02/09/2018	03/14/2018
CA	CUPA LASSEN	CUPA Facility List	Lassen County Environmental Health	01/22/2018	01/24/2018	03/14/2018
CA	AOCONCERN	San Gabriel Valley Areas of Concern	EPA Region 9	03/30/2009	03/31/2009	10/23/2009
CA	HMS LOS ANGELES	HMS: Street Number List	Department of Public Works	01/16/2018	01/23/2018	03/20/2018
CA	LF LOS ANGELES	List of Solid Waste Facilities	La County Department of Public Works	01/16/2018	01/16/2018	02/14/2018
CA	LF LOS ANGELES CITY	City of Los Angeles Landfills	Engineering & Construction Division	01/01/2017	04/21/2017	10/09/2017
CA	SITE MIT LOS ANGELES	Site Mitigation List	Community Health Services	01/01/2018	01/17/2018	02/14/2018
CA	UST EL SEGUNDO	City of El Segundo Underground Storage Tank	City of El Segundo Fire Department	01/21/2017	04/19/2017	05/10/2017
CA	UST LONG BEACH	City of Long Beach Underground Storage Tank	City of Long Beach Fire Department	03/09/2017	03/10/2017	05/03/2017
CA	UST TORRANCE	City of Torrance Underground Storage Tank	City of Torrance Fire Department	01/04/2018	01/05/2018	01/18/2018
CA	CUPA MADERA	CUPA Facility List	Madera County Environmental Health	02/21/2018	02/22/2018	04/03/2018
CA	UST MARIN	Underground Storage Tank Sites	Public Works Department Waste Management	01/02/2018	01/05/2018	01/17/2018
CA	CUPA MERCED	CUPA Facility List	Merced County Environmental Health	01/11/2018	01/12/2018	02/08/2018
CA	CUPA MONO	CUPA Facility List	Mono County Health Department	02/22/2018	02/27/2018	03/14/2018
CA	CUPA MONTEREY	CUPA Facility Listing	Monterey County Health Department	03/27/2018	03/29/2018	04/16/2018
CA	LUST NAPA	Sites With Reported Contamination	Napa County Department of Environmental Manag	01/09/2017	01/11/2017	03/02/2017

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	UST NAPA	Closed and Operating Underground Storage Tank Sites	Napa County Department of Environmental Manag	02/22/2018	02/27/2018	03/29/2018
CA	CUPA NEVADA	CUPA Facility List	Community Development Agency	01/31/2018	02/01/2018	03/14/2018
CA	IND_SITE ORANGE	List of Industrial Site Cleanups	Health Care Agency	02/05/2018	02/13/2018	04/03/2018
CA	LUST ORANGE	List of Underground Storage Tank Cleanups	Health Care Agency	02/05/2018	02/13/2018	03/20/2018
CA	UST ORANGE	List of Underground Storage Tank Facilities	Health Care Agency	01/02/2018	02/07/2018	03/28/2018
CA	MS PLACER	Master List of Facilities	Placer County Health and Human Services	12/08/2017	12/12/2017	01/31/2018
CA	CUPA PLUMAS	CUPA Facility List	Plumas County Environmental Health	01/22/2018	01/24/2018	03/15/2018
CA	LUST RIVERSIDE	Listing of Underground Tank Cleanup Sites	Department of Environmental Health	01/18/2018	01/23/2018	03/20/2018
CA	UST RIVERSIDE	Underground Storage Tank Tank List	Department of Environmental Health	01/18/2018	01/23/2018	03/28/2018
CA	CS SACRAMENTO	Toxic Site Clean-Up List	Sacramento County Environmental Management	11/02/2017	01/03/2018	02/05/2018
CA	ML SACRAMENTO	Master Hazardous Materials Facility List	Sacramento County Environmental Management	11/02/2017	01/03/2018	02/14/2018
CA	CUPA SAN BENITO	CUPA Facility List	San Benito County Environmental Health	11/01/2017	11/03/2017	11/17/2017
CA	PERMITS SAN BERNARDINO	Hazardous Material Permits	San Bernardino County Fire Department Hazardo	11/30/2017	12/01/2017	01/16/2018
CA	HMMD SAN DIEGO	Hazardous Materials Management Division Database	Hazardous Materials Management Division	03/05/2018	03/07/2018	04/16/2018
CA	LF SAN DIEGO	Solid Waste Facilities	Department of Health Services	10/31/2015	11/07/2015	01/04/2016
CA	SAN DIEGO CO. SAM	Environmental Case Listing	San Diego County Department of Environmental	03/23/2010	06/15/2010	07/09/2010
CA	LUST SAN FRANCISCO	Local Oversite Facilities	Department Of Public Health San Francisco Cou	09/19/2008	09/19/2008	09/29/2008
CA	UST SAN FRANCISCO	Underground Storage Tank Information	Department of Public Health	11/02/2017	11/07/2017	12/19/2017
CA	UST SAN JOAQUIN	San Joaquin Co. UST	Environmental Health Department	12/20/2017	12/21/2017	02/01/2018
CA	CUPA SAN LUIS OBISPO	CUPA Facility List	San Luis Obispo County Public Health Departme	11/16/2017	11/17/2017	12/18/2017
CA	BI SAN MATEO	Business Inventory	San Mateo County Environmental Health Service	12/12/2017	12/14/2017	01/11/2018
CA	LUST SAN MATEO	Fuel Leak List	San Mateo County Environmental Health Service	01/22/2018	01/23/2018	04/11/2018
CA	CUPA SANTA BARBARA	CUPA Facility Listing	Santa Barbara County Public Health Department	09/08/2011	09/09/2011	10/07/2011
CA	CUPA SANTA CLARA	Cupa Facility List	Department of Environmental Health	02/20/2018	02/20/2018	03/19/2018
CA	HIST LUST SANTA CLARA	HIST LUST - Fuel Leak Site Activity Report	Santa Clara Valley Water District	03/29/2005	03/30/2005	04/21/2005
CA	LUST SANTA CLARA	LOP Listing	Department of Environmental Health	03/03/2014	03/05/2014	03/18/2014
CA	SAN JOSE HAZMAT	Hazardous Material Facilities	City of San Jose Fire Department	02/04/2018	02/06/2018	03/20/2018
CA	CUPA SANTA CRUZ	CUPA Facility List	Santa Cruz County Environmental Health	01/21/2017	02/22/2017	05/23/2017
CA	CUPA SHASTA	CUPA Facility List	Shasta County Department of Resource Manageme	06/15/2017	06/19/2017	08/09/2017
CA	LUST SOLANO	Leaking Underground Storage Tanks	Solano County Department of Environmental Man	12/14/2017	12/15/2017	01/12/2018
CA	UST SOLANO	Underground Storage Tanks	Solano County Department of Environmental Man	03/08/2018	03/13/2018	03/29/2018
CA	CUPA SONOMA	Cupa Facility List	County of Sonoma Fire & Emergency Services De	03/01/2018	03/27/2018	04/16/2018
CA	LUST SONOMA	Leaking Underground Storage Tank Sites	Department of Health Services	01/04/2018	01/09/2018	02/06/2018
CA	CUPA STANISLAUS	CUPA Facility List	Stanislaus County Department of Ennvironmenta	02/06/2018	02/07/2018	03/16/2018
CA	UST SUTTER	Underground Storage Tanks	Sutter County Department of Agriculture	01/08/2018	03/01/2018	03/30/2018
CA	CUPA TEHAMA	CUPA Facility List	Tehama County Department of Environmental Hea	01/26/2018	02/02/2018	03/21/2018
CA	CUPA TRINITY	CUPA Facility List	Department of Toxic Substances Control	01/22/2018	01/25/2018	03/19/2018
CA	CUPA TULARE	CUPA Facility List	Tulare County Environmental Health Services D	03/19/2018	03/22/2018	04/17/2018
CA	CUPA TUOLUMNE	CUPA Facility List	Divison of Environmental Health	01/22/2018	01/25/2018	03/16/2018
CA	BWT VENTURA	Business Plan, Hazardous Waste Producers, and Operating Unde	Ventura County Environmental Health Division	12/26/2017	01/25/2018	03/14/2018
CA	LF VENTURA	Inventory of Illegal Abandoned and Inactive Sites	Environmental Health Division	12/01/2011	12/01/2011	01/19/2012
CA	LUST VENTURA	Listing of Underground Tank Cleanup Sites	Environmental Health Division	05/29/2008	06/24/2008	07/31/2008
CA	MED WASTE VENTURA	Medical Waste Program List	Ventura County Resource Management Agency	12/26/2017	01/25/2018	03/20/2018
CA	UST VENTURA	Underground Tank Closed Sites List	Environmental Health Division	02/28/2018	03/14/2018	03/30/2018
CA	UST YOLO	Underground Storage Tank Comprehensive Facility Report	Yolo County Department of Health	01/02/2018	01/09/2018	01/19/2018
CA	CUPA YUBA	CUPA Facility List	Yuba County Environmental Health Department	02/01/2018	02/02/2018	03/21/2018

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date

STREET AND ADDRESS INFORMATION

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APPENDIX E

FREEDOM OF INFORMATION ACT REQUESTS

Kathleen Lo

From: Kathleen Lo
Sent: Tuesday, May 01, 2018 4:59 PM
To: 'FileReview8@waterboards.ca.gov'
Cc: Neil Shukla; Brad Mccardell
Subject: Public Records Request - Riverside Cement Plant

Hello,

I would like to review any environmental records you have pertaining to the following address for the purposes of a Phase I Site Assessment:

1500 Rubidoux Boulevard
Riverside, CA 92509

Thank you,

We moved our office. Please note our new address and contact information.

Kathleen Lo
Staff Scientist
Direct: 949.255.8678
File Sharing Link

LANGAN
Phone: 213.943.1310
515 S Flower Street, Suite 2860
Los Angeles, CA 90071
www.langan.com

CALIFORNIA NEW JERSEY NEW YORK CONNECTICUT PENNSYLVANIA WASHINGTON, DC
VIRGINIA WEST VIRGINIA OHIO FLORIDA TEXAS ARIZONA
ABU DHABI ATHENS DOHA DUBAI ISTANBUL LONDON PANAMA

Langan's goal is to be SAFE (Stay Accident Free Everyday)

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

Information Management
Public Records Unit

Direct Dial: (909) 396-3700
FAX: (909) 396-3330

PUBLIC RECORDS REQUEST FORM

PRU Office Use Only
CONTROL NUMBER

ATTENTION REQUESTOR: To expedite your request for District records, please fill out this form completely, and identify specifically the type of records you are requesting. Please limit your request to one facility or one site address for each request form filed, and three requested items per form. Additional forms or pages can be used if requesting information for more than one facility or for records not identified on this form. Requests should reasonably describe identifiable records prepared, owned, used, or retained by the District. Public Records Unit staff is available to assist you in identifying those records in the District's possession. The District is not required by law to create a new record or list from an existing record.

REQUESTOR INFORMATION

NAME: Kathleen Lo		DATE: 5/1/2018
COMPANY: Langan Engineering & Environmental Services		
MAILING ADDRESS: 515 South Flower Street, Suite 2860		
CITY: Los Angeles	STATE: CA	ZIP CODE: 90071
PHONE NUMBER: 213-314-8136	FAX NUMBER: 949-255-8641	
EMAIL ADDRESS: klo@langan.com		

REQUESTED RECORDS (*3 items per form*)

☐ Applications (APPLS)	☐ Complaints	☐ Asbestos Notifications/Records
☐ Permits to Operate (P/O)	☒ Site Inspection Reports (I/R)	☐ Facility Potential to Emit (PTE)
☐ Equipment List Report (EQL)	☐ Emissions Summary	☐ Facility Positive Balance (NSR)
☒ Notices of Violation (NOV)	☐ Source Test Reports (S/T RPTS)	☐ Toxic-Health Risk Assessment (HRA)
☒ Notices to Comply (N/C)	☐ Air Monitoring Data	☐ Other (describe below or on additional pages):

TIME PERIOD OF DOCUMENTS REQUESTED From: 1800s To: Present

REQUESTED FACILITY INFORMATION (If Applicable)

FACILITY NAME: Riverside Cement Plant		
FACILITY ADDRESS: 1500 Rubidoux Boulevard		
CITY: Jurupa Valley	STATE: CA	ZIP CODE: 92509
FACILITY I.D. NO. (if known):	APPL. AND/OR PERMIT NO. (if known):	

***Direct cost of duplication**: $.15 per page for paper copies (first 10 pages free) and $5.00 per copied audio tape. No charge for copied Diskettes or CDs. Transfer of gathered electronic records onto CD or Diskette typically costs $10.00 each, but costs will vary (see Instructions for Requesting Records).*

X I wish to inspect the requested records, where applicable, or receive the requested records electronically at no charge. I do not want copies produced at this time.

☐ I request that the SCAQMD contact me prior to copying the requested records if the cost exceeds $20.00.

☐ I would like copies of the requested records and I hereby agree to reimburse the SCAQMD for the direct cost of duplication in accordance with Gov. Code Sec. 6253(b).

Signature of Requestor

Note: After a preliminary estimate, advance payment may be required.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

INSTRUCTIONS FOR REQUESTING RECORDS

(California Public Records Act, Govt. Code Sections 6250-6276.48)

1. In order to expedite your request, requests for records should be in writing. Requests will be processed in the order in which they are received. A Public Records Request Form can be faxed to you by calling (909) 396-3700 and following the menu options. A form is also available on the A.Q.M.D.'s web page at *http://*www.aqmd.gov. Select the "Contact Us" menu, followed by the "Public Records" menu. Requests may be submitted by facsimile to (909) 396-3330, or by email to PublicRecordsRequests@aqmd.gov.

2. Requests must be for records prepared, owned, used, or retained by the District (Gov. Code Sec. 6252(e)). Requests should be for clearly identifiable records. If necessary, the District will assist the requestor in making a request that describes reasonably identifiable records (Gov. Code Sec. 6253.1). Copies will not be provided if disclosure would infringe upon a copyright, trade secret, or is otherwise exempt in accordance with state law.

3. A search for facility records can only be conducted by one or all of the following:

   Facility Name, Address, or Identification Number;

   Facility Application Number, or Permit to Operate Number; or

   Facility Notice of Violation/Notice to Comply Number.

4. You will be notified by mail within ten (10) days whether your request seeks copies of disclosable public records prepared, owned, used, or retained by this agency. In most cases, your request will be completed within 3-4 weeks.

5. If the search for records finds the records voluminous, you will be notified of the approximate number of pages and/or length of time it will take to process your request.

6. If the records you requested have been marked confidential by the source of the record, you will be notified and given the option of continuing with the District's trade secret process.

7. If your request is to review records, rather than receive copies, the District will notify you once the records are gathered, and arrangements will be made for your review.

8. The charge for the direct cost of duplication is as follows: Paper Copies, $0.15/page each over 10 pages (first 10 pages are free); Copied CD's or Copied Diskettes, no charge; and Copied Audio Tapes, $5.00 each. When records are requested in electronic format, the requestor shall bear the cost of producing a copy of the record, including the cost to construct the record and the cost of programming and computer services necessary to produce a copy of the record when either of the following applies: (1) the District would be required to produce a copy of an electronic record and the record is one that is produced only at otherwise regularly scheduled intervals, or (2) the request would require data compilation, extraction, or programming to produce the record. (Gov. Code Sec. 6253.9(b)). The transfer of gathered electronic records onto CD or Diskette typically cost $10.00 each. An invoice will accompany your records when completed.

9. For further clarification please refer to the California Public Records Act (California Gov. Code Sec. 6250 et seq.) and/or the District's Guidelines for Implementing the California Public Records Act. The Guidelines are available in the lobby of the District Headquarters or on the District's web site at www.aqmd.gov.

If you have questions pertaining to the submittal of a Public Records Act request, you may contact the Public Records Unit, **(909) 396-3700, Tuesday through Friday, 7:00 a.m. to 5:30 p.m. Our Fax number is (909) 396-3330. Our email address is PublicRecordsRequests@aqmd.gov.**

LANGAN

FAX Transmittal

32 Executive Park, Suite 130 Irvine, CA 92614 T: 949.255.8640 F: 949.255.8641

To:	Company:	Fax:
Regional Records Coordinator	DTSC – Cypress Regional Office	714-484-5318

From:	Date:	Page(s): (with cover)
Kathleen Lo	5/1/2018	1

Re: Records Request

Project No:

Hard Copy to Follow: ☐ Yes ☒ No

☐ First Class Mail
☐ Federal Express: ☐ Priority ☐ Standard ☐ 2nd Day

☐ For Your Information ☐ Urgent ☐ For Review and Comment ☐ As Requested ☒ Please Reply

COMMENTS:

I would like to review any files you may have pertaining to the following addresses:

1500 Rubidoux Boulevard,
Riverside, CA 92509

If any files are available, I would like to make copies. Please contact me to discuss the costs and procedures for copying potential files.

Thank you,

Kathleen Lo
Staff Scientist
(213) 314-8136
klo@langan.com

PRIVATE and CONFIDENTIAL. This Fax transmission contains confidential information which is legally privileged and intended only for the use of the recipient name above. If you have received this fax in error, please notify us by telephone at 949.255.8640.

County of Riverside

DEPARTMENT OF ENVIRONMENTAL HEALTH

www.rivcoeh.org

Environmental Protection & Oversight Division
Hazardous Materials Management Branch

REQUEST FOR RECORDS

Requests for review of records are processed on a first come, first serve basis and the processing time is approximately 2-4 weeks. As required by California Public Records Act Section 6250 et seq., a response will be given within ten (10) business days to confirm receipt of your request.

Pursuant to California Government Code, Section 6254 (f), records of pending investigations and informant's names, addresses, and telephone numbers, will not be released.

For access to electronic records available online, visit the Public Information section at www.rivcoeh.org for more details.

REQUESTOR INFORMATION		
NAME: Kathleen Lo	DATE OF REQUEST: 5/1/2018	
BUSINESS NAME (IF ANY): Langan Engineering and Environmental Services		
RETURN LEGAL MAILING ADDRESS: 515 South Flower Street, Suite 2860		
CITY: Los Angeles	STATE: CA	ZIP: 90071
PHONE: 213-314-8136		

The following information is required. **List each street address separately.**

	SITE STREET ADDRESS (NO APNs)	CITY
1.	1500 Rubidoux Boulevard	Riverside
2.		
3.		
4.		
5.		
6.		
7.		

Requests must be made in writing and submitted by mail, email, or in person to the following office:

4065 County Circle Drive, Room 104, Riverside, CA 92503
Phone: (951) 358-5055
Email: DEHRecordsMgmt@rivco.org
Mailing Address: P.O. Box 7909, Riverside, CA 92513-7909

Kathleen Lo

From: WB-RB8-FileReview8 <FileReview8@waterboards.ca.gov>
Sent: Monday, May 07, 2018 3:01 PM
To: Kathleen Lo
Subject: RE: Public Records Request - Riverside Cement Plant

Good afternoon,

After careful review of our records, we show we have files available for review for the following sites:

1500 Rubidoux Boulevard Riverside, CA 92509

Please contact us through this inbox if you would like to schedule an appointment to review files M-F 8:30-4:30.

File Review Desk
3737 Main St. Suite 500
Riverside, CA 92501

From: Kathleen Lo [mailto:klo@langan.com]
Sent: Tuesday, May 1, 2018 4:59 PM
To: WB-RB8-FileReview8 <FileReview8@waterboards.ca.gov>
Cc: Neil Shukla <nshukla@langan.com>; Brad Mccardell <bmccardell@langan.com>
Subject: Public Records Request - Riverside Cement Plant

Hello,

I would like to review any environmental records you have pertaining to the following address for the purposes of a Phase I Site Assessment:

1500 Rubidoux Boulevard
Riverside, CA 92509

Thank you,

We moved our office. Please note our new address and contact information.

Kathleen Lo
Staff Scientist
Direct: 949.255.8678
File Sharing Link

LANGAN
Phone: 213.943.1310
515 S Flower Street, Suite 2860
Los Angeles, CA 90071
www.langan.com

Langan's goal is to be SAFE (Stay Accident Free Everyday)

This message may contain confidential, proprietary, or privileged information. Confidentiality or privilege is not intended to be waived or lost by erroneous transmission of this message. If you receive this message in error, please notify the sender immediately by return email and delete this message from your system. Disclosure, use, distribution, or copying of a message or any of its attachments by anyone other than the intended recipient is strictly prohibited.

Kathleen Lo

From: Colleen Paine <CPaine@aqmd.gov>
Sent: Tuesday, May 08, 2018 3:11 PM
To: Kathleen Lo
Subject: Request for Records from the South Coast Air Quality Management District

KATHLEEN LO
515 S FLOWER ST
LOS ANGELES, CA 90071-

RE: Request for Records
Control #: 94766
Request: NOV'S, N/C'S, & I/R'S FOR RIVERSIDE CEMENT PLANT, 1500 RUBIDOUX BLVD, JURUPA VALLEY, CA.

Your request for records has been received by the Public Records Unit and has been assigned for processing.

Your request in whole or in part,seeks disclosable public records that are in the possession of this agency.
Your requested records will be provided within 30 days.
When your requested records are ready, they will be sent electronically to your email address unless other arrangements are made or necessary.

Should you have any questions or need additional information, please do not hesitate to contact me at (909) 396-3700, Tuesday through Friday, between the hours of 8:00 a.m. 4:30 p.m. Please reference your Control Number listed above in all communications and correspondence.

Sincerely,

COLLEEN PAINE

For COLLEEN PAINE
Public Records Coordinator

Matthew Rodriquez
Secretary for
Environmental

Department of Toxic Substances Control

Barbara A. Lee, Director
5796 Corporate Ave
Cypress, California 90630

Edmund G. Brown Jr.
Governor

May 3, 2018

Ms. Kathleen Lo
Langan
32 Executive Park, Ste. 130
Irvine, CA 92614

1500 Rubidoux Blvd.
PR4-050318-14

Dear. Ms. Lo:

We have received your Public Records Act Request for records from the Department of Toxic Substances Control.

After a, thorough review of our files we have found that records exist at this office pertaining to some of the site/facilities referenced below.

- Yes: Riverside Cement Co-Crestmore, 1500 Rubidoux Blvd., Riverside
  ½ shelve, 1960 – 2018. Check EnviroStor (60002561)

We would also like to inform you about Envirostor, a database that provides information and documents on over 5,000 DTSC cleanup sites. EnviroStor can be accessed at: http://www.envirostor.dtsc.ca.gov/public.

If you have any questions, would like further information regarding your request or would like to set an appointment, please contact our Regional Records Coordinator at (714)484-5336.

Sincerely,

Jone Barrio

Jone Barrio
Regional Records Coordinator
DTSC-Cypress

future request please: fax: 714.484.5318 or
email both: Jone.Barrio@dtsc.ca.gov & Julie.Johnson@dtsc.ca.gov

APPENDIX F

AERIAL PHOTOGRAPHS

AMCP - Southern Parcel

1500 Rubidoux Blvd

Riverside, CA 92509

Inquiry Number: 5273221.9

April 27, 2018

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

04/27/18

Site Name:

AMCP - Southern Parcel
1500 Rubidoux Blvd
Riverside, CA 92509
EDR Inquiry # 5273221.9

Client Name:

Langan Engineering
515 S Flower Street, Suite 2860
LOS ANGELES, CA 90071
Contact: Rachel Prohoroff

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	*Scale*	*Details*	*Source*
2014	1"=500'	Flight Year: 2014	USDA/NAIP
2010	1"=500'	Flight Year: 2010	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
1994	1"=500'	Acquisition Date: January 01, 1994	USGS/DOQQ
1990	1"=500'	Flight Date: August 29, 1990	USDA
1989	1"=500'	Flight Date: August 15, 1989	USDA
1985	1"=500'	Flight Date: September 13, 1985	USDA
1975	1"=500'	Flight Date: August 01, 1975	USGS
1968	1"=500'	Flight Date: August 21, 1968	USDA
1966	1"=500'	Flight Date: April 16, 1966	USGS
1959	1"=500'	Flight Date: October 15, 1959	USGS
1953	1"=500'	Flight Date: January 23, 1953	USDA
1948	1"=500'	Flight Date: July 10, 1948	USGS
1938	1"=500'	Flight Date: June 14, 1938	USDA
1931	1"=500'	Flight Date: September 18, 1931	USGS

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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INQUIRY #: 5273221.9
YEAR: 2014
= 500'
N
EDR
G-4051


INQUIRY #: 5273221.9
YEAR: 2010
= 500'
N
EDR
G-4052


INQUIRY #: 5273221.9
YEAR: 2005
= 500'
N
EDR
G-4053



INQUIRY #: 5273221.9

YEAR: 1994

= 500'

N

EDR

G-4054



INQUIRY #: 5273221.9

YEAR: 1990

= 500'

N

EDR

G-4055



INQUIRY #: 5273221.9

YEAR: 1989

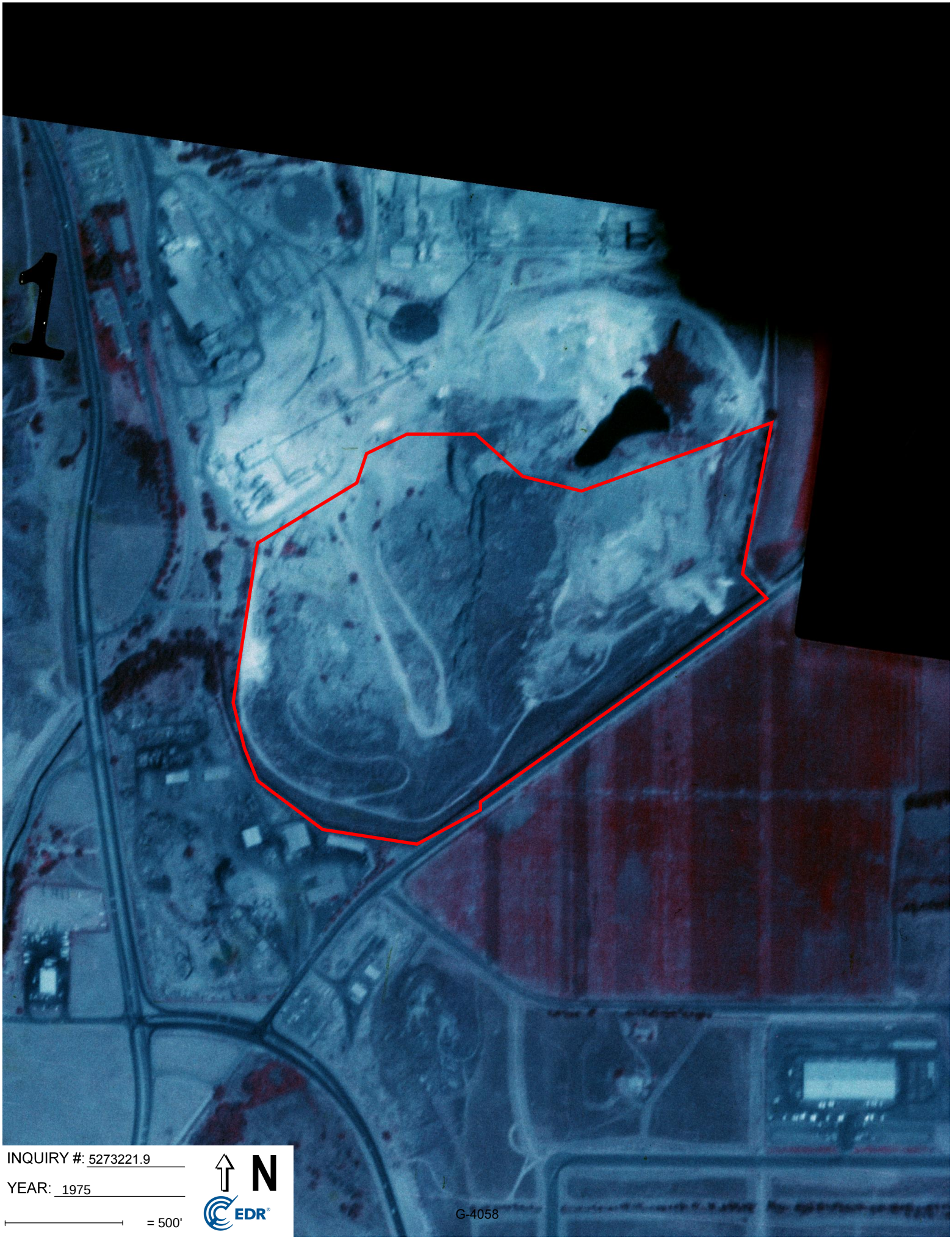
= 500'

N

EDR

G-4056


INQUIRY #: 5273221.9
YEAR: 1985
= 500'
N
EDR
G-4057



INQUIRY #: 5273221.9

YEAR: 1975

= 500'

N

EDR

G-4058


INQUIRY #: 5273221.9
YEAR: 1968
= 500'
N
EDR
G-4059


INQUIRY #: 5273221.9
YEAR: 1966
= 500'
N
EDR
G-4060



INQUIRY #: 5273221.9

YEAR: 1959

= 500'

N

EDR

G-4061


INQUIRY #: 5273221.9
YEAR: 1953
= 500'
N
EDR
G-4062



INQUIRY #: 5273221.9

YEAR: 1948

= 500'

N

EDR


INQUIRY #: 5273221.9
YEAR: 1938
= 500'
N
EDR
G-4064



INQUIRY #: 5273221.9

YEAR: 1931

= 500'

N

EDR

G-4065

APPENDIX G

SANBORN FIRE INSURANCE MAPS

AMCP - Southern Parcel

1500 Rubidoux Blvd

Riverside, CA 92509

Inquiry Number: 5273221.3

April 26, 2018

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

04/26/18

Site Name:

AMCP - Southern Parcel
1500 Rubidoux Blvd
Riverside, CA 92509
EDR Inquiry # 5273221.3

Client Name:

Langan Engineering
515 S Flower Street, Suite 2860
LOS ANGELES, CA 90071
Contact: Rachel Prohoroff

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Langan Engineering were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 0234-4946-9E0B

PO # 721013501

Project Rubidoux/Agua Mansa Open Space

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 0234-4946-9E0B

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

Langan Engineering (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

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APPENDIX H

HISTORICAL USGS TOPOGRAPHIC QUADRANGLE MAPS

AMCP - Southern Parcel

1500 Rubidoux Blvd

Riverside, CA 92509

Inquiry Number: 5273221.4

April 26, 2018

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

04/26/18

Site Name:

AMCP - Southern Parcel
1500 Rubidoux Blvd
Riverside, CA 92509
EDR Inquiry # 5273221.4

Client Name:

Langan Engineering
515 S Flower Street, Suite 2860
LOS ANGELES, CA 90071
Contact: Rachel Prohoroff

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Langan Engineering were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# 721013501
Project: Rubidoux/Agua Mansa Open S

Coordinates:

Latitude:	34.024383 34° 1' 28" North
Longitude:	-117.384086 -117° 23' 3" West
UTM Zone:	Zone 11 North
UTM X Meters:	464540.53
UTM Y Meters:	3764926.03
Elevation:	984.02' above sea level

Maps Provided:

2012
1980
1975
1973
1967
1954
1953, 1954
1943
1942
1901
1898
1896

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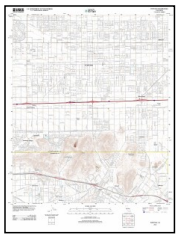
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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets

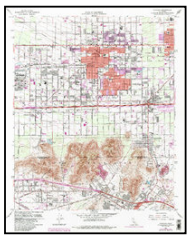


Fontana
2012
7.5-minute, 24000

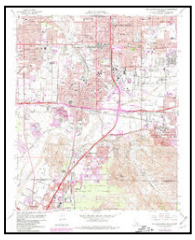


San Bernardino South
2012
7.5-minute, 24000

1980 Source Sheets

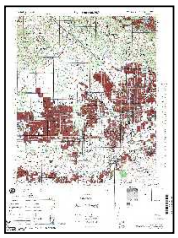


Fontana
1980
7.5-minute, 24000
Aerial Photo Revised 1978



San Bernardino South
1980
7.5-minute, 24000
Aerial Photo Revised 1979

1975 Source Sheets

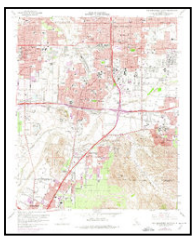


SAN BERNARDINO
1975
15-minute, 50000

1973 Source Sheets



Fontana
1973
7.5-minute, 24000
Aerial Photo Revised 1973

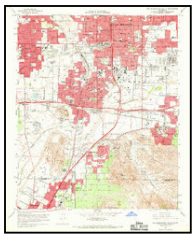


San Bernardino South
1973
7.5-minute, 24000
Aerial Photo Revised 1973

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1967 Source Sheets



San Bernardino South
1967
7.5-minute, 24000
Aerial Photo Revised 1966



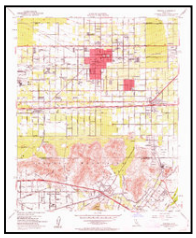
Fontana
1967
7.5-minute, 24000
Aerial Photo Revised 1966

1954 Source Sheets

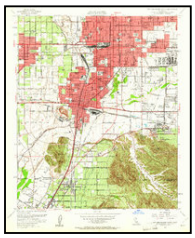


San Bernardino
1954
15-minute, 62500
Aerial Photo Revised 1952

1953, 1954 Source Sheets



Fontana
1953
7.5-minute, 24000
Aerial Photo Revised 1952



San Bernardino South
1954
7.5-minute, 24000
Aerial Photo Revised 1952

1943 Source Sheets



Colton
1943
7.5-minute, 31680

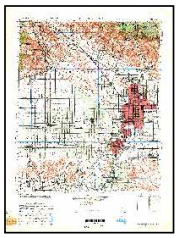


Fontana
1943
7.5-minute, 31680

Topo Sheet Key

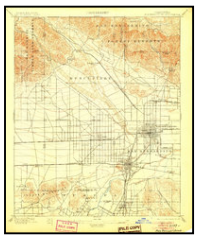
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1942 Source Sheets



SAN BERNARDINO
1942
15-minute, 50000

1901 Source Sheets



San Bernardino
1901
15-minute, 62500

1898 Source Sheets



San Bernardino
1898
15-minute, 62500

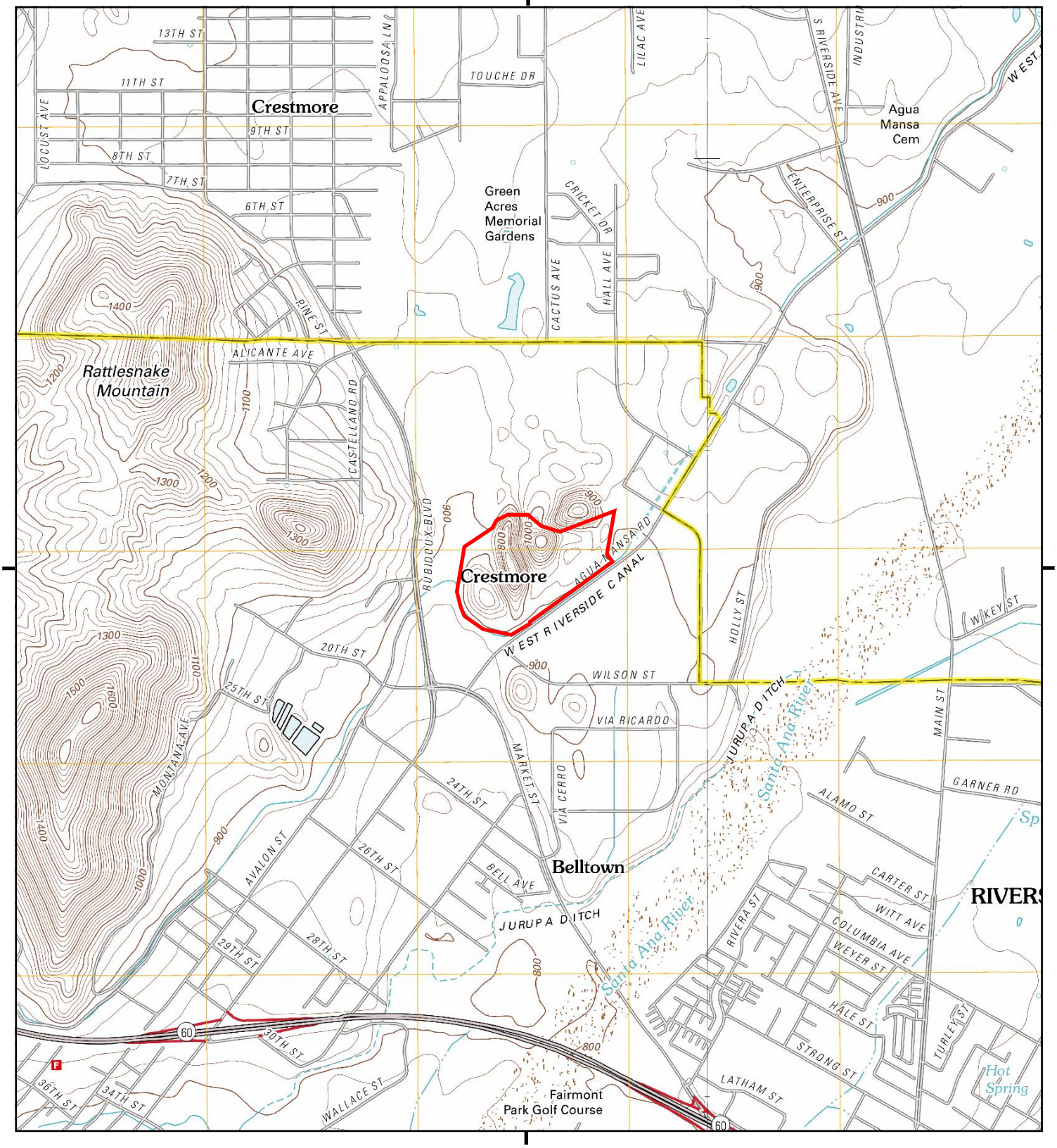
1896 Source Sheets



San Bernardino
1896
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

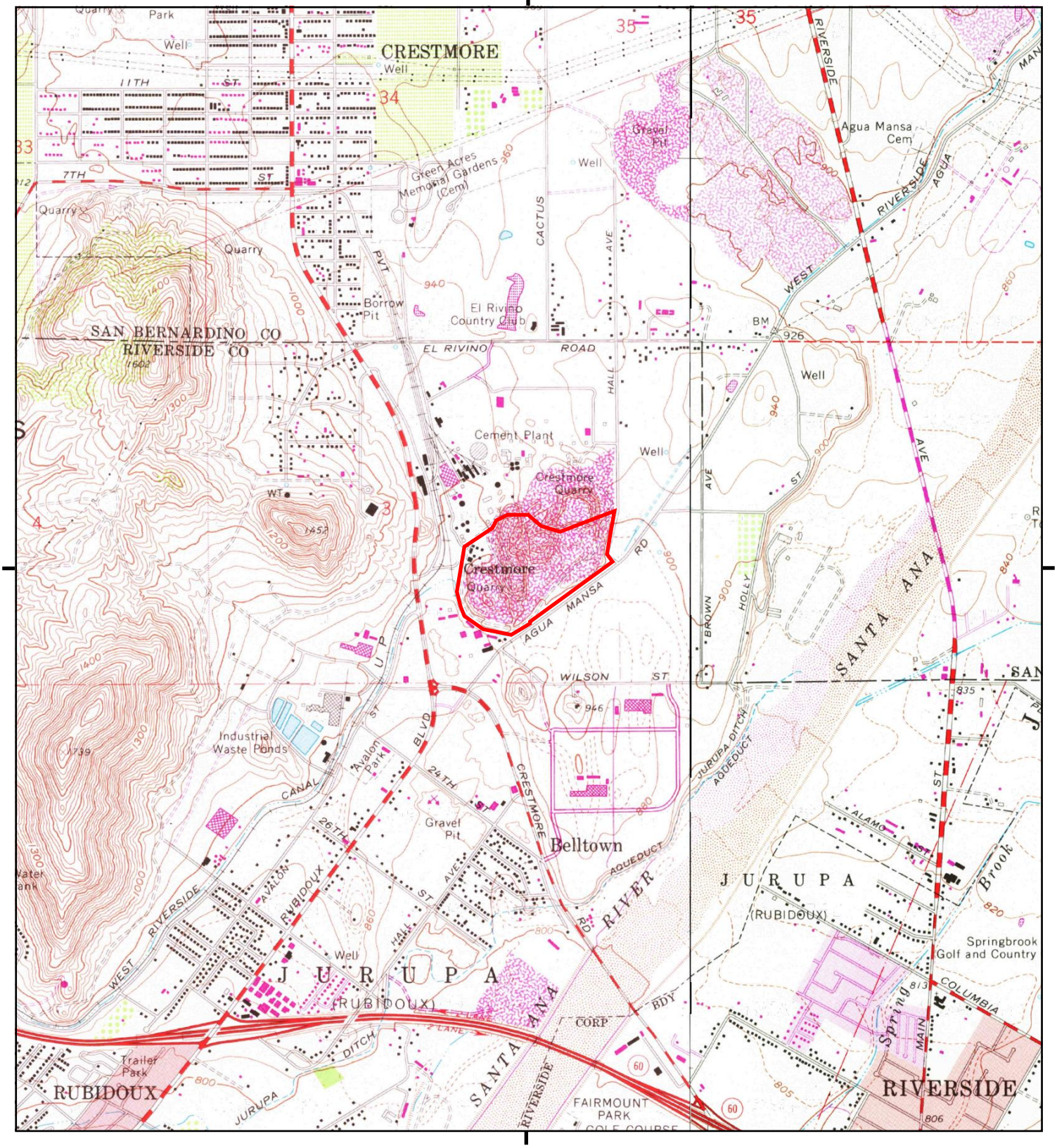
NW N NE
W E
SW S SE

TP, Fontana, 2012, 7.5-minute
NE, San Bernardino South, 2012, 7.5-minute

SITE NAME: AMCP - Southern Parcel
ADDRESS: 1500 Rubidoux Blvd
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-4075



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Fontana, 1980, 7.5-minute
NE, San Bernardino South, 1980, 7.5-minute

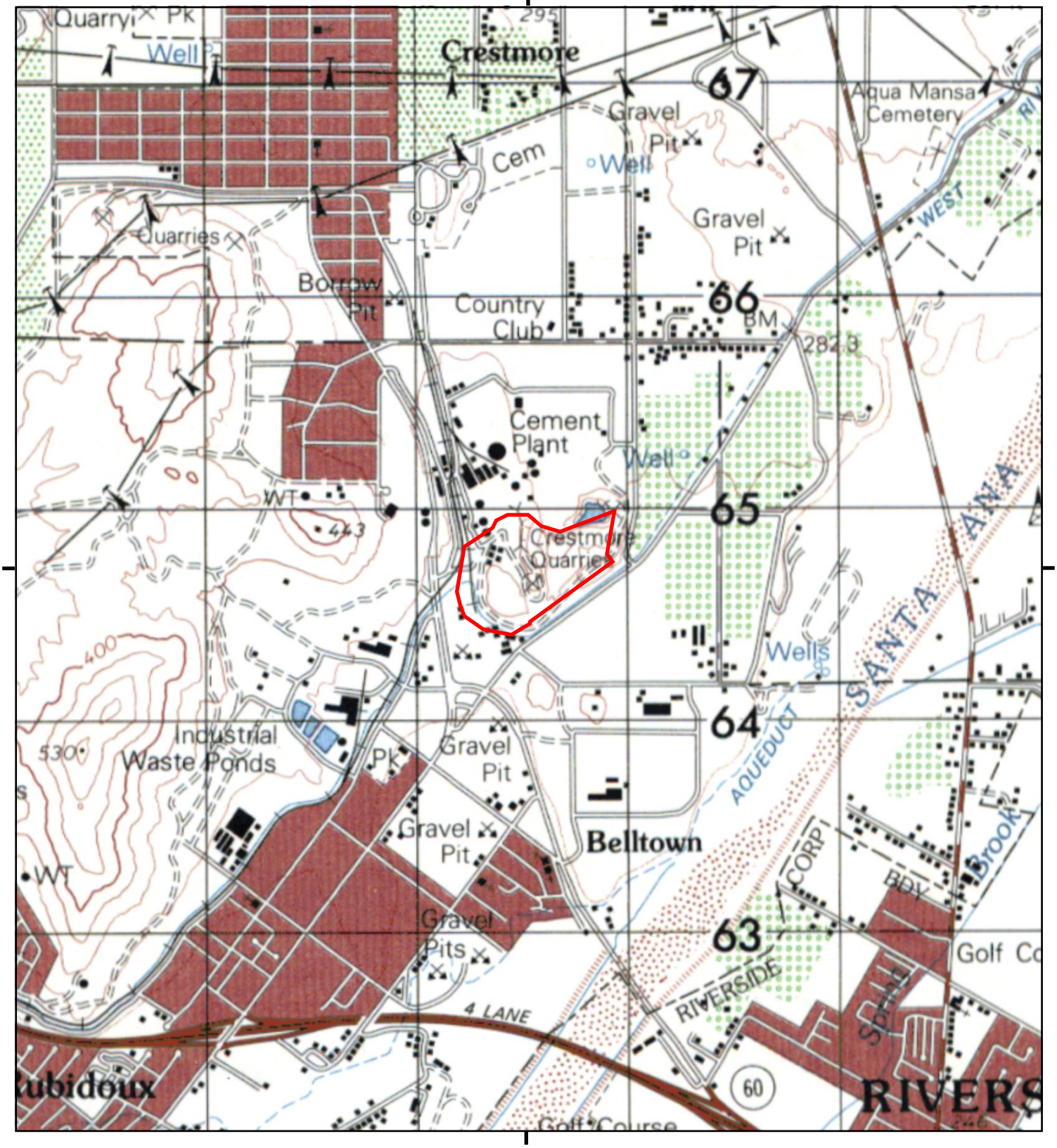
SITE NAME: AMCP - Southern Parcel
ADDRESS: 1500 Rubidoux Blvd
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-4076

Historical Topo Map

1975



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

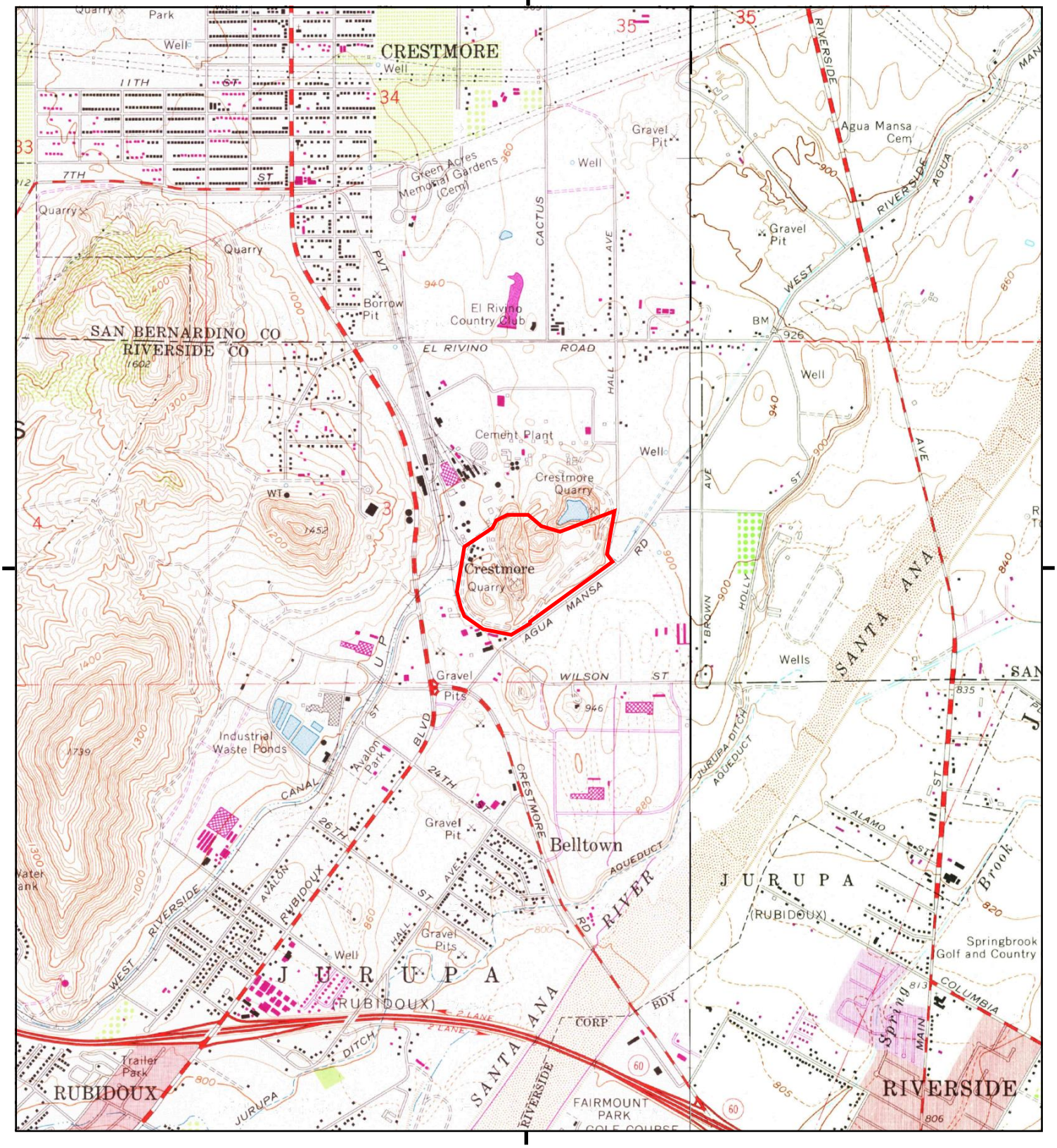
NW N NE
W E
SW S SE

TP, SAN BERNARDINO, 1975, 15-minute

SITE NAME: AMCP - Southern Parcel
ADDRESS: 1500 Rubidoux Blvd
Riverside, CA 92509
CLIENT: Langan Engineering

G-4077

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

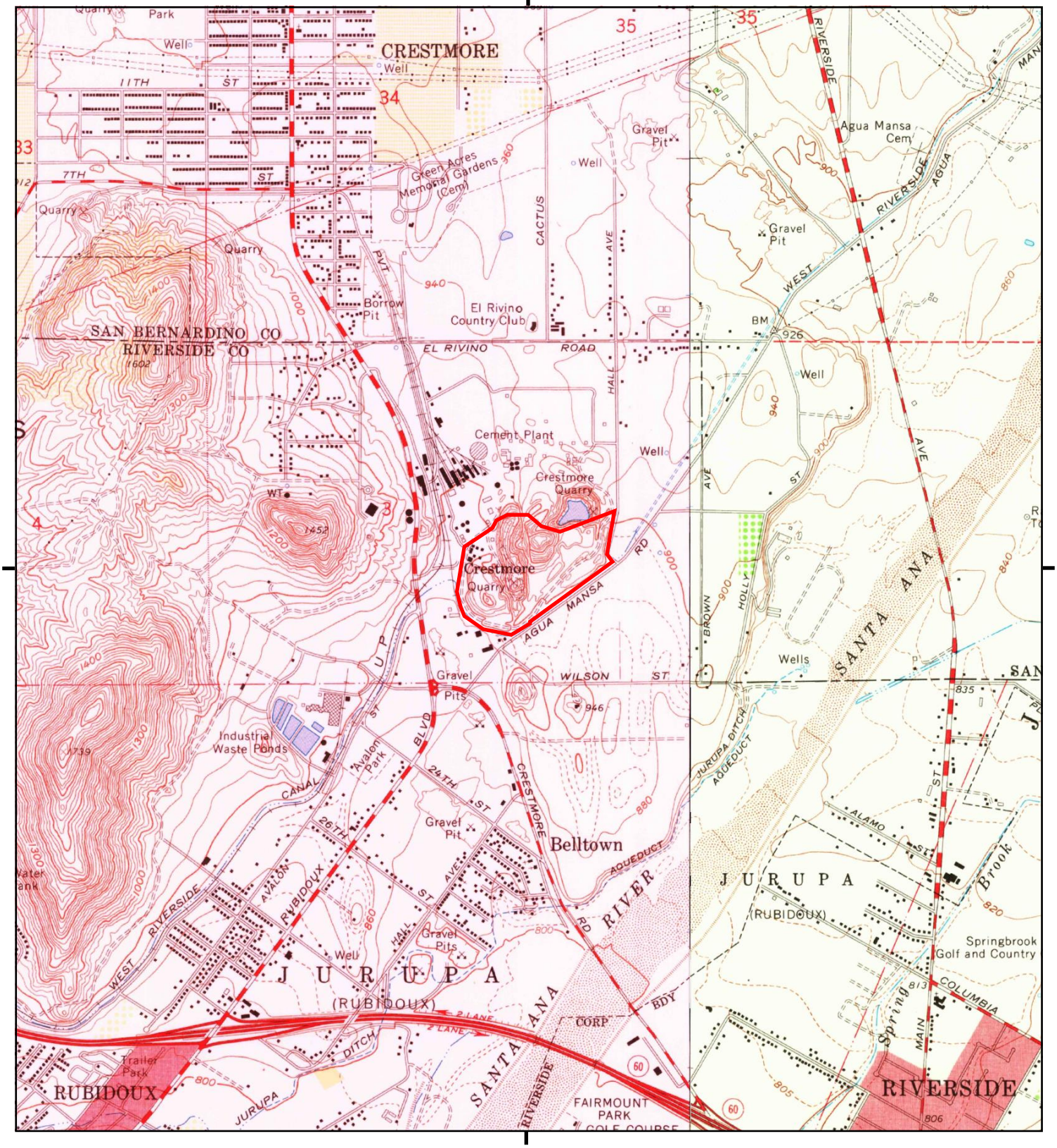
NW N NE
W E
SW S SE

TP, Fontana, 1973, 7.5-minute
NE, San Bernardino South, 1973, 7.5-minute

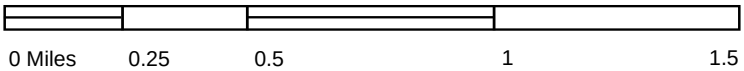
SITE NAME: AMCP - Southern Parcel
ADDRESS: 1500 Rubidoux Blvd
Riverside, CA 92509
CLIENT: Langan Engineering

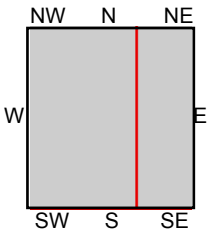
N

G-4078



This report includes information from the following map sheet(s).



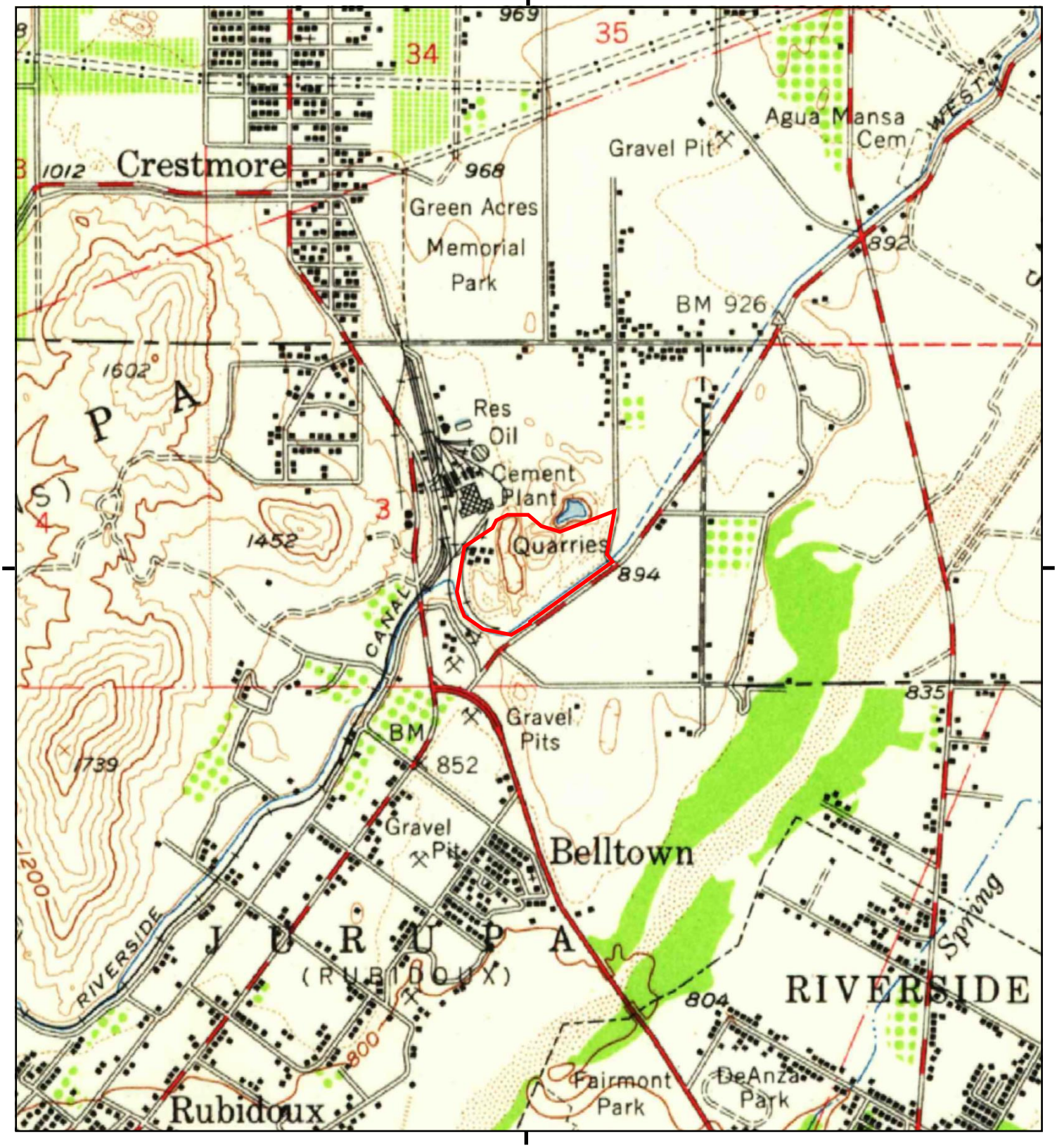


TP, Fontana, 1967, 7.5-minute
NE, San Bernardino South, 1967, 7.5-minute

SITE NAME: AMCP - Southern Parcel
ADDRESS: 1500 Rubidoux Blvd
Riverside, CA 92509
CLIENT: Langan Engineering



G-4079



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

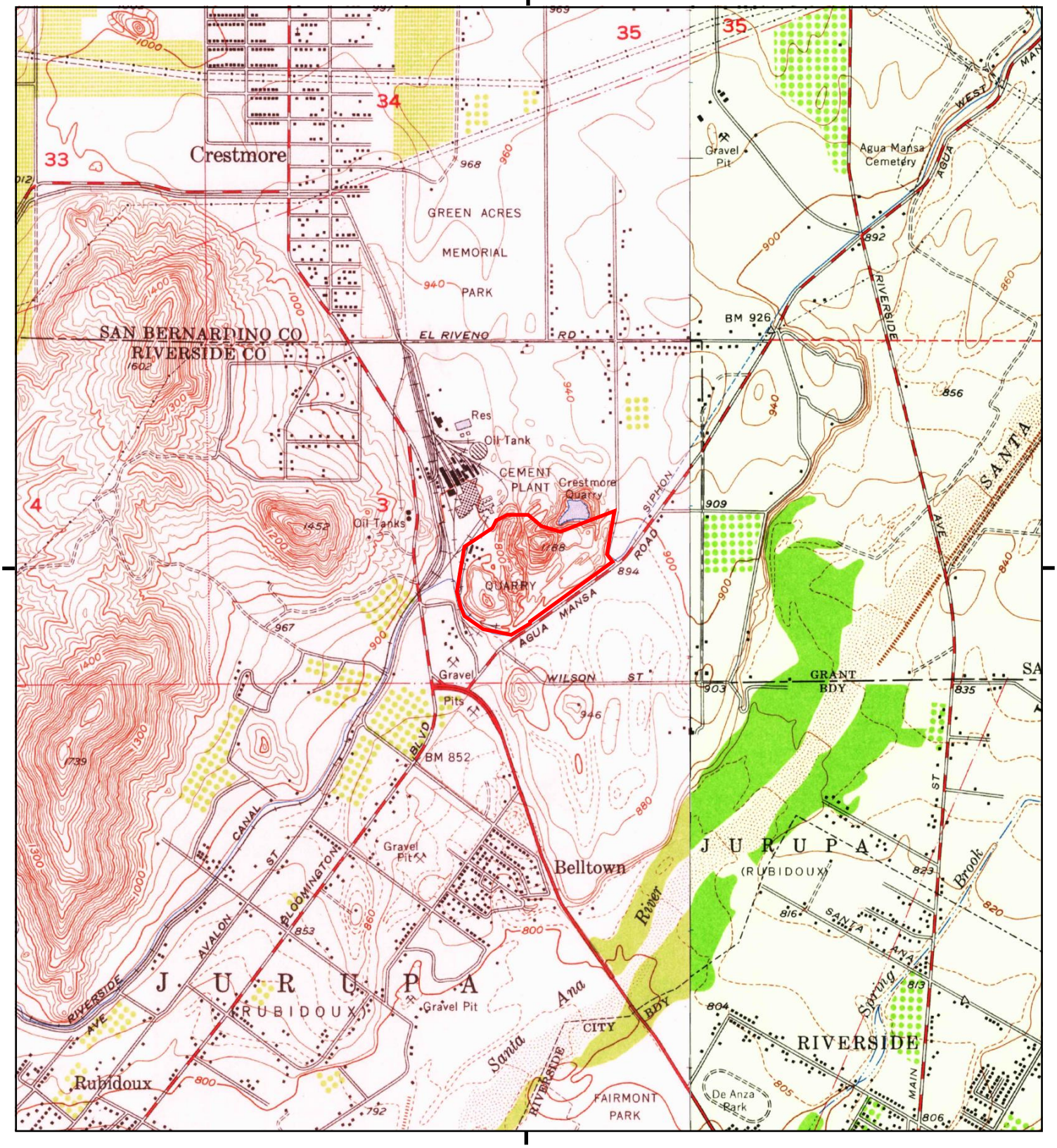
NW N NE
W E
SW S SE

TP, San Bernardino, 1954, 15-minute

SITE NAME: AMCP - Southern Parcel
ADDRESS: 1500 Rubidoux Blvd
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-4080



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

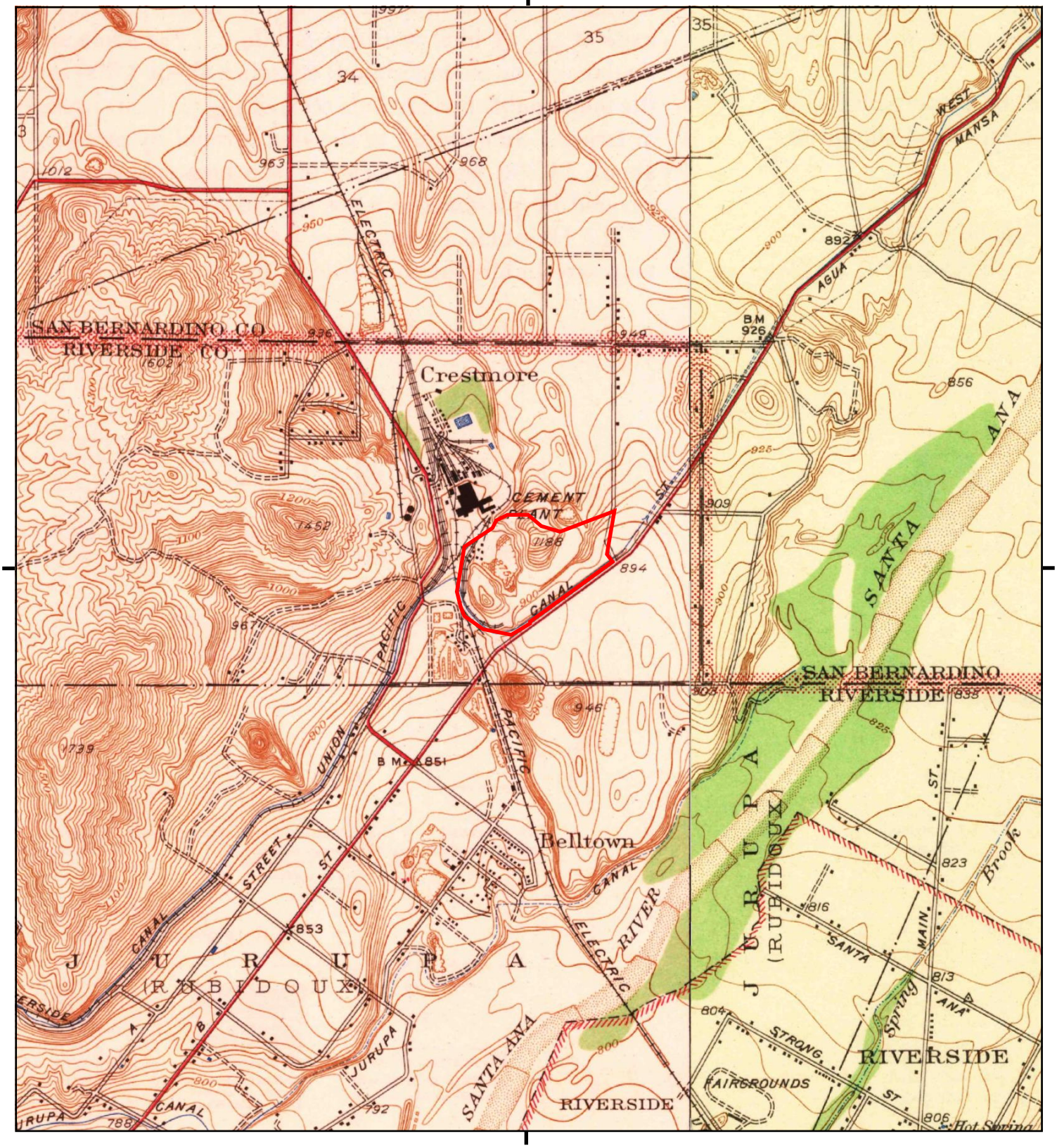
NW N NE
W E
SW S SE

TP, Fontana, 1953, 7.5-minute
NE, San Bernardino South, 1954, 7.5-minute

SITE NAME: AMCP - Southern Parcel
ADDRESS: 1500 Rubidoux Blvd
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-4081



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

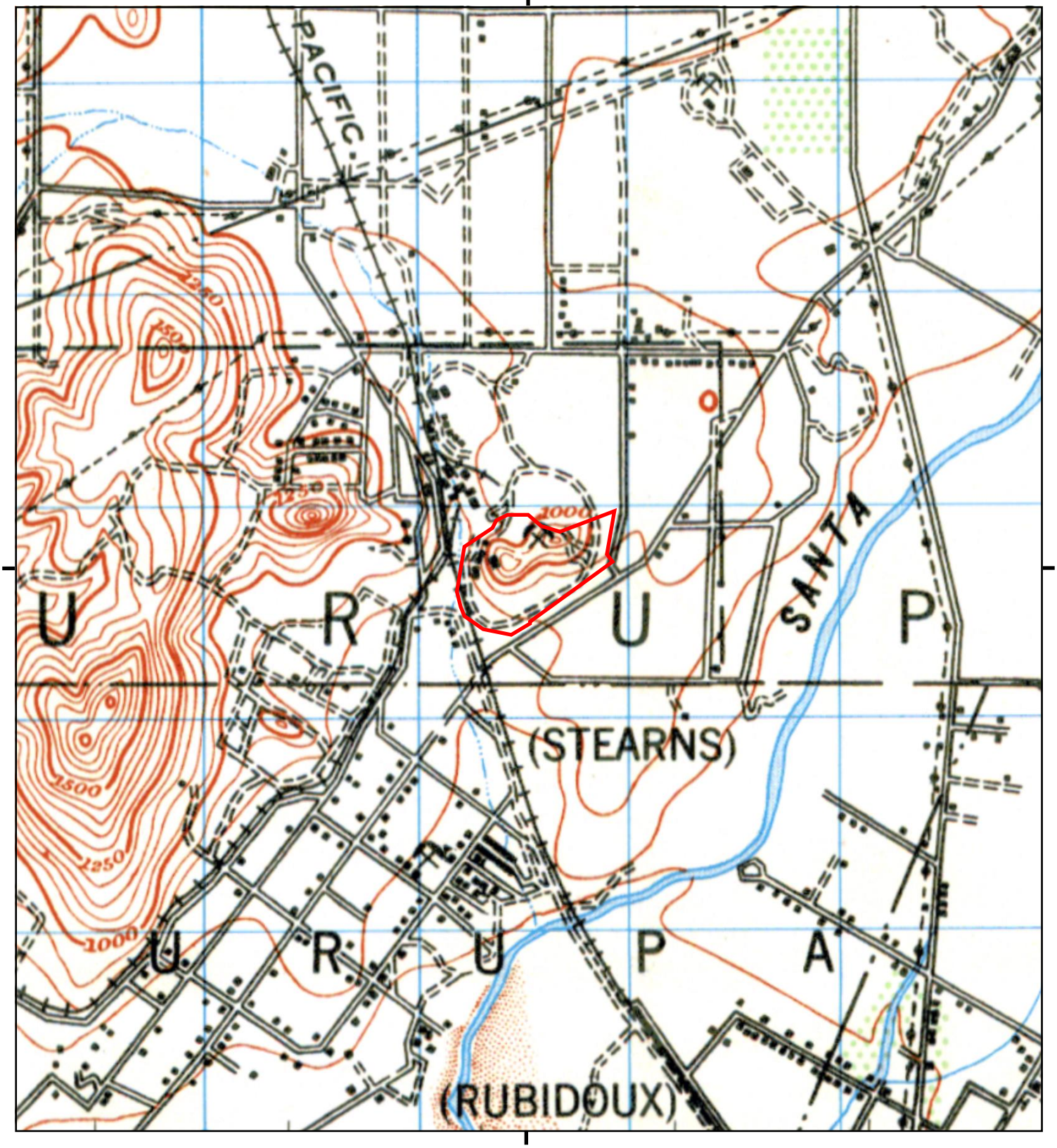
NW N NE
W E
SW S SE

TP, Fontana, 1943, 7.5-minute
NE, Colton, 1943, 7.5-minute

SITE NAME: AMCP - Southern Parcel
ADDRESS: 1500 Rubidoux Blvd
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-4082



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

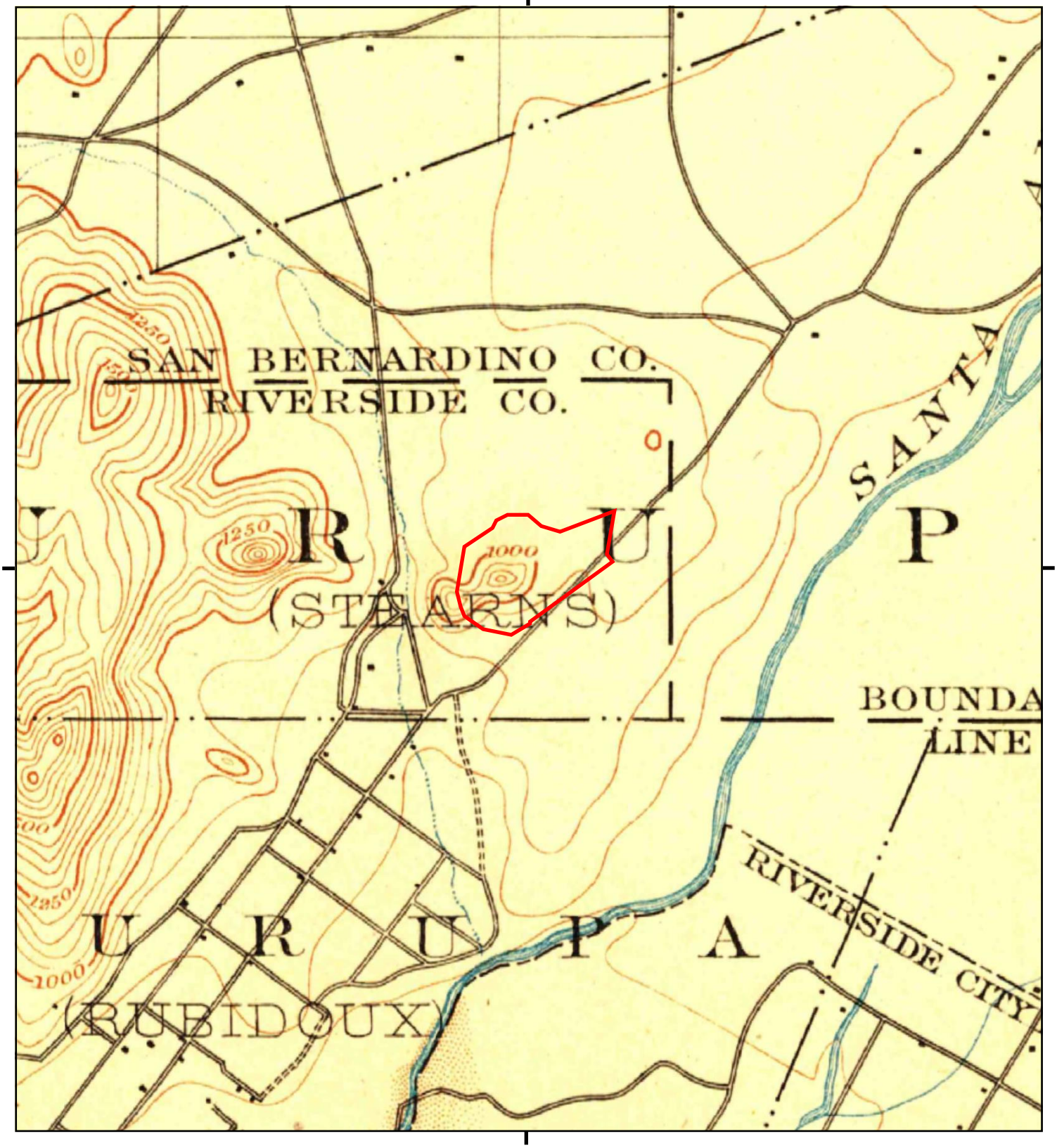
NW N NE
W E
SW S SE

TP, SAN BERNARDINO, 1942, 15-minute

SITE NAME: AMCP - Southern Parcel
ADDRESS: 1500 Rubidoux Blvd
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-4083



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

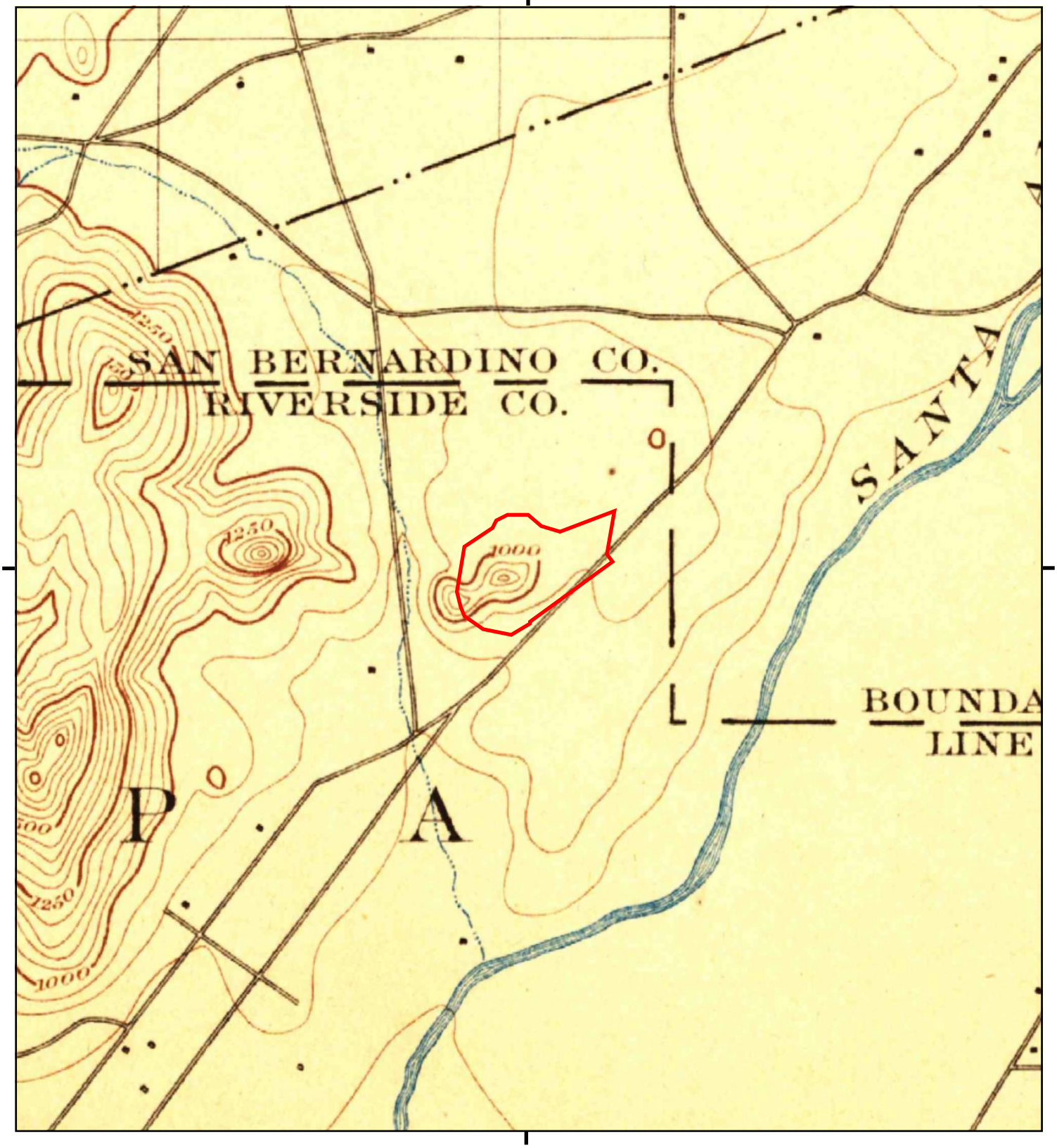
NW N NE
W E
SW S SE

TP, San Bernardino, 1901, 15-minute

SITE NAME: AMCP - Southern Parcel
ADDRESS: 1500 Rubidoux Blvd
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-4084



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

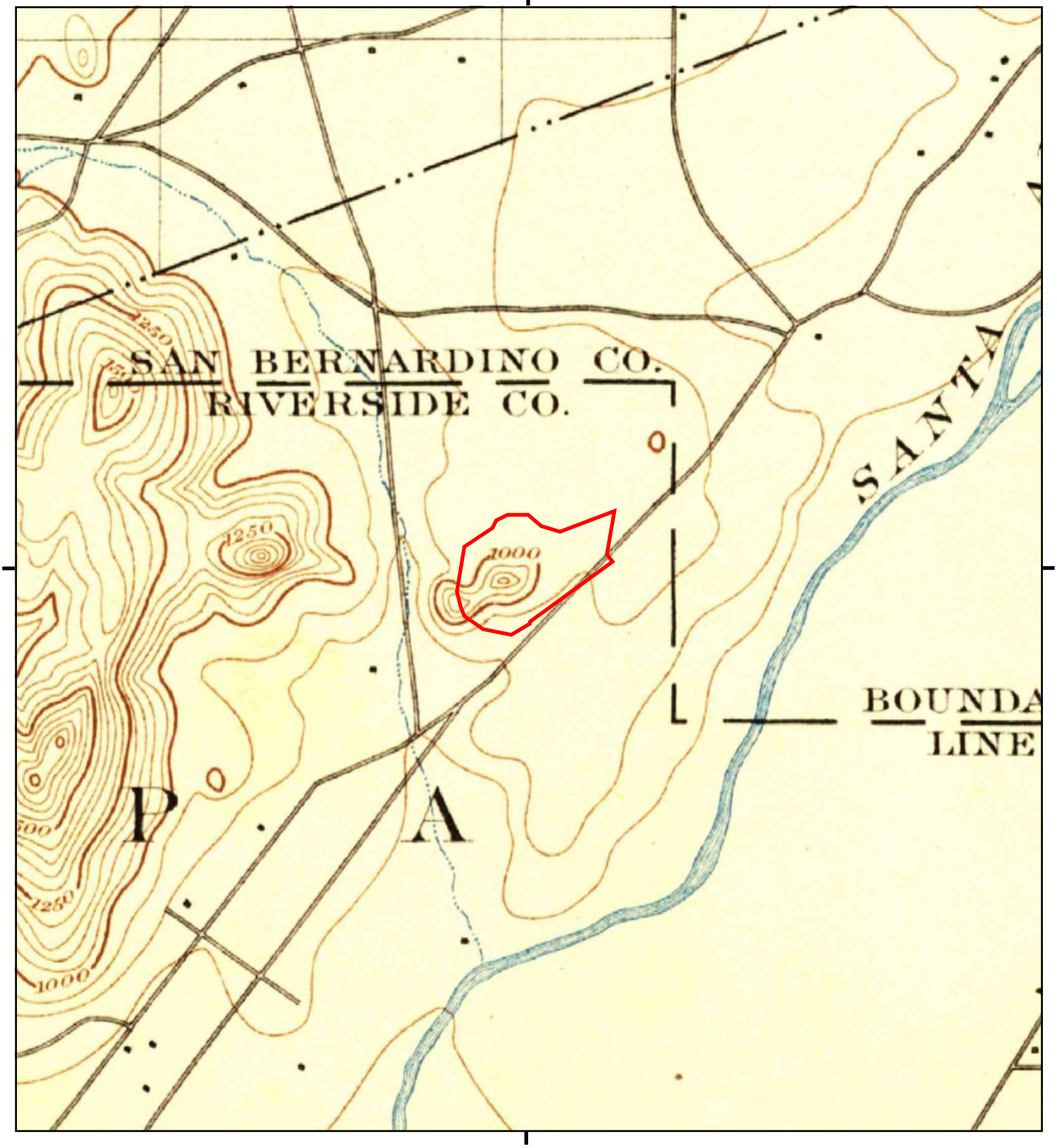
NW N NE
W E
SW S SE

TP, San Bernardino, 1898, 15-minute

SITE NAME: AMCP - Southern Parcel
ADDRESS: 1500 Rubidoux Blvd
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-4085



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, San Bernardino, 1896, 15-minute

SITE NAME: AMCP - Southern Parcel
ADDRESS: 1500 Rubidoux Blvd
Riverside, CA 92509
CLIENT: Langan Engineering

N

G-4086

APPENDIX I

CITY DIRECTORY ABSTRACT

AMCP - Southern Parcel
1500 Rubidoux Blvd
Riverside, CA 92509

Inquiry Number: 5273221.5
April 27, 2018

The EDR-City Directory Abstract

Environmental Data Resources Inc
6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1921 through 2005. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2005	EDR Digital Archive	-	X	X	-
	EDR Digital Archive	X	X	X	-
2002	SBC PACIFIC BELL	X	-	X	-
2001	Haines & Company, Inc.	X	-	X	-
1996	Pacific Bell	X	-	X	-
1993	Pacific Bell	-	-	-	-
1990	Pacific Bell	X	-	X	-
1986	Pacific Bell Yellow Pages	-	-	-	-
1981	Pacific Telephone	-	-	-	-
1977	Pacific Telephone	-	-	-	-
1970	Pacific Telephone	X	-	X	-
1967	Luskey Brothers & Co.	-	-	-	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1966	Luskey Brothers & Company Inc.	-	-	-	-
1961	Luskey Brothers & Co.	-	-	-	-
1960	Luskeys Brothers & Co., Publishers	-	-	-	-
1956	Luskey Brothers & Co.	-	-	-	-
1955	Luskeys Brothers Co., Publishers	-	-	-	-
1951	Los Angeles Directory Co.	-	-	-	-
1946	Southern California Telephone Company	-	-	-	-
1945	Los Angeles Directory Co.	-	-	-	-
1941	Pacific Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1936	Los Angeles Directory Co.	-	-	-	-
1931	Southern California Telephone Co.	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Kaasen Directory Co.	-	-	-	-
1921	Riverside Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

1500 Rubidoux Blvd
Riverside, CA 92509

FINDINGS DETAIL

Target Property research detail.

Rubidoux Blvd

1500 Rubidoux Blvd

Year	*Uses*	*Source*
2014	ORO GRANDE FEDERAL CREDIT UNIO	EDR Digital Archive
	RIVERSIDE CEMENT HOLDINGS CO	EDR Digital Archive
2010	IRONDALE INDUSTRIAL CONTRS	EDR Digital Archive
	ORO GRANDE FEDERAL CREDIT UNIO	EDR Digital Archive
	RIVERSIDE CEMENT COMPANY	EDR Digital Archive
2005	ORO GRANDE FEDERAL CREDIT UNIO	EDR Digital Archive
	RIVERSIDE CEMENT COMPANY	EDR Digital Archive
2002	ORO GRANDE FEDERAL CREDIT	SBC PACIFIC BELL
	UNION	SBC PACIFIC BELL
2001	BUDCR 11 DS	Haines & Company, Inc.
	CRESTMOREDIV	Haines & Company, Inc.
	MKTG DEPT TXIRIVRSDCEMENT	Haines & Company, Inc.
	PURCHASING	Haines & Company, Inc.
	TRANSLOADING CCF	Haines & Company, Inc.
	TX IRIV 0 SD CEMENT	Haines & Company, Inc.
1996	CALIFORNIA CATTLE FEEDERS	Pacific Bell
1990	CDK CONTRACTING	Pacific Bell
	CRESTMORE FEDERAL CREDIT UNION	Pacific Bell
1970	AMERICAN CEMENT CORP See Riverside Cement Co	Pacific Telephone
	Land Paul B	Pacific Telephone
	RIVERSIDE CEMENT CO	Pacific Telephone
	Riverside Cement Transportation Department	Pacific Telephone

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

Rubidoux Blvd

1490 Rubidoux Blvd

Year	*Uses*	*Source*
2005	CEMENT INDUSTRY ENVIRONMENTAL	EDR Digital Archive

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
1500 Rubidoux Blvd	1993, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
1490 Rubidoux Blvd	2014, 2010, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

Site Assessment Work Plan

Agua Mansa Recreational Park/Open Space
Jurupa Valley, Riverside County, California

Prepared For:
***Crestmore Redevelopment, LLC*:**

Prepared By:
Langan Engineering and Environmental Services, Inc.
515 South Flower Street, Suite 2860
Los Angeles, California 90071



Brad A. McCardell, PG, #8108
Senior Project Geologist



Neil Shukla
Associate



Robert S. (Rory) Johnston, PE
Principal / Vice President

7 January 2019
Project No. 721013502

TABLE OF CONTENTS

TABLE OF CONTENTS 1
Tables 1
Figures 1
Appendices 1
1.0 INTRODUCTION 2
1.1 Objectives 3
1.2 Site Background 4
1.2.1 Site Description 4
2.0 HISTORICAL SITE ACTIVITIES 4
3.0 GEOLOGY AND HYDROGEOLOGY 7
3.1 Geology 7
3.1.1 Regional Geologic Setting 7
3.1.2 Local Geologic Setting 7
4.0 STUDY AREAS 11
5.0 REVIEW OF PREVIOUS REGULATORY INVOLVEMENT 15
6.0 PREVIOUS SITE INVESTIGATIONS 16
7.0 PROPOSED INVESTIGATION PLANS 19
8.0 REPORTING 26
9.0 REFERENCES 27

TABLES

Table 1 Proposed Sample Locations and Analytical Testing
Table 2 Former Operations Area Features
Table 3 Quarry Area Features
Table 4 Septic Tanks/Piping Area Features
Table 5 Prior Agency Engagement

FIGURES

Figure 1 Site Location Map
Figure 2 Lot Map
Figure 3 Proposed Open Space/Recreational Park Concept
Figure 4 Proposed Sampling Locations - Open Space/Recreational Park

APPENDICES

Appendix A Summary of Hexavalent Chromium Sampling Results

1.0 INTRODUCTION

Langan Engineering and Environmental Services, Inc. (Langan) has prepared this Site Assessment Work Plan (SAWP) for the Business Park, Open Space and the proposed Recreational Park (hereinafter referred to as the "Site") on the southern portion of the former Riverside Cement Plant (RCP), located at 1500 Rubidoux Boulevard in Jurupa Valley, California (Figure 1). The Site has been divided into four (4) lots (Lots A through D), with each lot having a separate California Land Reuse and Revitalization Act (CLRRA) agreement with the Department of Toxic Substance Control (DTSC). The CLRRA agreements were executed on 9 August 2018. The total acreage of the Site consists of 75.27 acres. The lot sizes and associated assessor parcel numbers (APN) for each lot are presented in the table below. Figure 2 presents the layout of the lots. The Site excludes the Empire Water Property (APN 175-170-042) and the West Riverside Water Company Canal (APNs 175-170-002 and 175-170-007) because these parcels are not part of the property and are owned by other entities. Please note that the property boundary shown is adjusted from what was presented in Langan's Updated Phase I Environmental Site Assessment, dated 24 May 2018, based on a property lot line survey performed to address other owners near the Site.

Lot Sizes and APN

Lot Designation	Lot Acreage	APN
A	5.09	Portion of 175-170-041
B	65.87	Portions of 175-180-001 & 175-170-041
C	1.06	Portion of 175-170-041
D	3.25	175-170-043

The proposed development for the Site will consist of both business park parcels and the open space and recreational areas. The majority of the area will be undeveloped and closed off to the public, including the water feature (i.e., Crestmore Lake) and Commercial Quarry located on the

central and eastern portions of the Site. Development will be focused on the area on the western portion of the Site (Lot A) where the former mine buildings and administration offices were located. Lot A will remain a commercial/industrial area and will contain a parking lot, visitors center, museum/interpretive center, and other paved features. Lot B will be redeveloped into recreational park and contain fenced-off trails, and view points. In addition, a pedestrian hiking/biking trail, including rest areas and benches, will be developed that will traverse the western portion of Lot B and will also extend along the southern and eastern portion of Lot B within the Site. The trail will be fenced off and have placards along it to restrict human access to the trails and viewpoints. Lots C and D will not be part of the recreational park development. However, Lot C will remain undeveloped land and Lot D may potentially be used for commercial/industrial purposes in the future.

Based on the results of the implementation of this SAWP, a Response Plan will be developed to outline the proposed remedy to address any identified potential impacts encountered during the Site redevelopment. As part of the redevelopment program, the onsite structures (mine offices, administration buildings, and various structures) will be decontaminated and demolished prior to Site redevelopment. The decontamination and demolition phase will occur concurrently with decontamination and demolition activities on the northern portion (Agua Mansa Commerce Park development) of the RCP. Any additional sampling of areas previously inaccessible due to onsite structures will be conducted during the demolition phase. After the demolition and additional sampling, regrading and redevelopment of the Site will take place. The proposed development is shown on Figure 3.

1.1 OBJECTIVES

The purpose of this SAWP is to investigate the Recognized Environmental Conditions (RECs) that were presented in Langan's updated Phase I Environmental Site Assessment (ESA) for the Rubidoux/Aqua Mansa Open Space, Jurupa Valley, California, dated 24 May 2018. The proposed Site assessment and data collection activities will provide information to evaluate current site conditions relative to potential impacts associated with the RECs identified in the updated Phase I ESA and affects from past mine operations, particularly from the potential distribution of cement kiln dust (CKD).

The three data quality objectives (DQO) for the SAWP are:

- DQO-1: Determine and evaluate chemicals of potential concern (COPCs) and the

lateral and vertical extents of COPCs in former known or suspected source areas to support an ecological and human health risk evaluation, as required, and the Response Plan.

- DQO-2: Identify hexavalent chromium (Cr^{VI}), and metals (i.e., arsenic, cadmium, and lead) containing materials that have a potential to generate dusts/emissions especially during grading or demolition activities.

- DQO-3: Evaluate metals and hexavalent chromium in groundwater.

1.2 SITE BACKGROUND

1.2.1 Site Description

The Site is 75.25 acres located at 1500 Rubidoux Boulevard. The approximate location is shown on Figure 1. The Site includes four (4) lots in Jurupa Valley, California.

The Site is bound to the west by Rubidoux Boulevard, to the north by the RCP, to the south by Agua Mansa Road, and to the east by industrial development. As shown on Figure 4, the eastern half of the Site contains the Commercial Quarry, unpaved roads, and Cement Kiln Dust (CKD)-containing soil areas. The western half contains the flooded Crestmore Quarry, seven buildings that supported the mine/quarry operations, three mine vents, and an area of former Kaolin clay storage. The Union Pacific Railroad (UPRR) tracks run along the western portion of the Site. Two groundwater monitoring wells are located on the Site, which include MW-3 (southern boundary) and MW-4, located southwest of the seven buildings on the Site. In addition, a septic system is located southwest of the seven buildings and north of MW-4 (western portion of the Site). These features are represented on Figure 4.

2.0 HISTORICAL SITE ACTIVITIES

The paragrahs in this section are intended to provide the reader with the overall general understanding of the cement plant operations and includes discussions related to the cement manfucturing operations that occurred on the northern portion of the property that is handled under a separate investigation and CLRRA agreements independent of this Site. The purpose of the information presented in this section is to provide background information on the adjacent northern property since it was part of the overall cement manufacturing operations. Background

information on historical operations that occurred on the Site are discussed in Section 4.0.

The Site was in operation from the early 1900s until 2014. Operations on Site were divided into either the cement manufacturing operations, or the Crestmore mine where mining of limestone and quarrying activities were conducted. The Crestmore mine was an underground mine, and the four quarries were designated as the Wet Weather, the Chino, the Commercial, and the Lone Star quarries. The Commercial Quarry and flooded Crestmore Quarry are located within the Site boundary and are discussed further in Section 4.0 below, while the other quarries are located to the north within the proposed Agua Mansa Commerce Park of the Site (Figure 1) which is not part of this SAWP. In addition, the Site includes various support facilities, heavy machinery, and administrative buildings that were related to the cement manufacturing plant and limestone quarrying and mining operations.

The RCP facility underwent three major redevelopment phases over the life of its operation. From the early 1900s to the 1950s, the cement plant was located in the southwestern portion of the northern portion of the RCP, just north of the present day White Cement Plant, which is north of the seven buildings within the Site. The former RCP facility at that time was operated using petroleum-based fuels (i.e., Bunker C) stored in fuel tanks. As the cement manufacturing process evolved through the use of updated technology and other changes in the industry, the former RCP facility went through an expansion and redevelopment phase from the late 1950's through early 1960's, which included conveyor belt systems and compress air, development of raw material storage areas, and upgrades to processing of raw materials to manufacture cement product, which were all located north of the Site.

During the second renovation phase, the former RCP facility was operated using both coal and petroleum-based fuels. By the 1960's, the original plant had been demolished and the present day facility was constructed that generated both grey and white cement product. The current facility was operated until it was shutdown in 2014.

In 1909, limestone and silicate rock quarrying activities began at the Site. In 1930, underground mining commenced at the Crestmore mine, which furnished most of the plant's requirements until 1939. The Wet Weather quarry was deepened and extended between 1940 and 1954. From 1930 to 1954, the block caving method was used, which was a process that allows for bulk mining of large, relatively lower-grade materials. The room and pillar underground mining method was used between 1954 and 1986. Mining of limestone at the Site ceased in the late 1980s

when mining operations penetrated the underlying aquifer eventually flooding the mine vents. The resulting flood created the present day Crestmore Lake located in the western portion of the Site.

Cement manufacturing operations began in 1914 and continued through 2008. The limestone obtained from the onsite quarries/mines was mixed with raw sand and clay materials imported from off-site sources, and heated in rotary kilns to manufacture cement clinker. Cement Kiln Dust (CKD) was one of the primary by-products generated during the manufacturing process, and it exhibits a slight pinkish hue. When hydrated, CKD becomes dense and relatively impermeable to water, but does not form a cemented mass.

Prior to the 1970s, CKD was hauled from the kilns using end-dump trucks and reportedly placed with fill soils/mine spoils at several locations throughout the Site (Figure 1). The placement of CKD material primarily occurred from 1955 to 1979, and the primary location was the Wet Weather Quarry, located north of the Site and not included in this SAWP. Due to the advancement in the cement manufacturing process during the 1970's, previously discarded CKD material was reclaimed and used as feedstock in the cement making process. Also during the 1950s and early 1960s, the cement manufacturing process developed a closed-loop system with the incorporation of bag houses to capture CKD and other particulate materials generated during the cement manufacturing process. The CKD material was reclaimed beginning in the early 1970s until the operations were shutdown in 2014.

Implementation of a SAWP on the northern portion of the RCP was conducted from 11 July 2018 to 26 July 2018. The site-wide COPCs that were analyzed for in soil samples were total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs), Title 22 metals, polychlorinated biphenyls (PCBs), dioxins, and hexavalent chromium (Cr^{VI}). The compounds that were identified above their respective screening levels (SLs) during this investigation were lead, Cr^{VI}, arsenic, and cadmium. Soil gas samples were taken and analyzed for TPH and VOCs; there were no detections above their respective reporting limits.

3.0 GEOLOGY AND HYDROGEOLOGY

3.1 GEOLOGY

3.1.1 Regional Geologic Setting

The Site is located in the Peninsular Ranges Province of Southern California, dominated by granitic rocks of Mesozoic age that intruded into pre-existing sedimentary strata. Tertiary strata were deposited west of the eroded granitic rocks, and as the area was uplifted, some of these strata formed upland coastal plains. The Site is also located east of the coastal plains in an area dominated by granitic rocks that are mainly quartz diorite.

As discussed above, specific areas of the Site were used for mining activities due to the presence of two steeply dipping limestone formations approximately 200 to 300 feet thick. The limestone formations are roughly parallel, with an upper and lower formation; the upper formation is known as the Sky Blue Hill Limestone and the lower formation is known as the Chino Limestone. Thin, poorly developed soils and minor sedimentary strata are mapped as locally covering the bedrock on the Site.

As stated above, the Site is located within the fault-bounded, northwest-southeast trending Perris Block within the Peninsular Ranges geomorphic province of California. The Perris Block is bounded in the east by the San Jacinto Fault Zone, the north by Cucamonga Fault Zone, and the west by Elsinore Fault Zone. According to the United States Geologic Survey (USGS) maps, the Perris Block is underlain by lithologically diverse prebatholithic metasedimentary rocks intruded by plutons of the Cretaceous age Peninsular Ranges batholith. Erosional depositional surfaces are developed on the Perris Block and thin to relatively thick sections of Quaternary age non-marine sediments discontinuously cover the basement rock.

3.1.2 Local Geologic Setting

The Site is located in the eastern end of the Jurupa Mountains on the south side of the San Bernardino Valley. The Santa Ana River drains the San Bernardino Valley towards the southwest and is located approximately one-half mile east of the Site.

Based on a review of published geologic reports, maps and referenced geologic information, the

Site is mapped as being underlain by two geologic units consisting of surficial soils (artificial fill, alluvium, Aeolian sands) and intermixed tonalite marble and schist. The artificial fill (Qaf) reportedly consists of uncompacted and undocumented fill from mining operations, soil containing CKD and unconsolidated talus deposits. The intermixed tonalite, marble, and schist (KtPzms) are Cretaceous and Paleozoic age and consist of intermixed biotite-hornblende tonalite and coarse grained marble containing lesser amounts of biotite-quartz schist.

Based on the information reviewed, quarrying and subsurface mining activities were initiated in 1906 to mine the limestone located on or in the vicinity of the Site. Prior to quarrying, the limestone was present as two generally irregular, roughly parallel, lenticular limestone bodies dipping primarily east-northeast. As discussed above, the upper (shallower) Sky Blue Limestone and the lower (deeper) Chino limestone are mineralogically similar. The limestone is coarsely crystalline, associated with metamorphosed sediments, enveloped and cut by intrusive igneous rocks and contact metamorphic minerals, including large masses of intrusive microcrystalline quartz monzonite porphyry and quartz monzonite pegmatites. Country rock within the boundaries of the Site consists of Perris quartz-biotite diorite that becomes granodiorite. Quartz monzonite pegmatites occur commonly as dikes in the porphyry and country rock and extended generally less than 2 or 3 feet into the limestone. The widespread contact rock is composed generally of grossularite garnet with and without diopside.

The shallower, Sky Blue Limestone is an arcuate shaped body, enveloped and intruded by quartz diorite and intruded by quartz monzonite porphyry. The body (prior to mining) was up to several hundred feet thick and dipped primarily east or northeast. Where the body was thinnest, the limestone was converted to contact rock. Two (2) facies were present within the limestone; a white limestone with localized yellow predazzite beds and a sky blue colored limestone present closer to the intrusive quartz monzonite porphyry and associated pegmatites.

The deeper, Chino Limestone is generally composed of alternating bands of yellowish predazzite and white crystalline limestone with widely disseminated graphite flakes. The unit dipped up to 45 degrees east, was at least 2,000 feet long, and had irregular upper and lower surfaces. Banding ranged from few inches to a few feet thick.

3.2 Hydrogeology

The Site is located in the eastern end of the Jurupa Mountains on the south side of the San Bernardino Valley. The Santa Ana River drains the San Bernardino Valley towards the southwest

and is approximately one-half mile east of the Site. The ground surface elevations vary between approximately 820 feet above mean sea level (amsl) on the southern portion of the Site to approximately 1150 feet amsl on the northern portion of the Site.

Based on a review of historical Site documents, groundwater occurs in three distinct hydrologic units at the Site. They are the Chino Limestone (referred to as the Lowe limestone unit), the Wet Weather, the Sky Blue (referred to as the Commercial unit in historical documents), Limestone units (referred to as upper limestone unit), and the Santa Ana River alluvium (ERM-West, August 1991). According to the ERM-West 1991 report, geologic and dewatering feasibility studies were conducted in 1928 and 1950 by W.P. Rowe in the Chino limestone, where the Crestmore quarry is currently located. These studies indicated that the granite layers above and below the Chino limestone act as confining layers. The report states that the Chino limestone water originates mostly from percolation from rainwater at the mine and an influx of water from somewhere below the Santa Ana River to the east.

Pumping wells installed during the 1928 study were screened in the Blue Sky and Wet Weather formations, and displayed a flow consistent with groundwater migration in the river alluvium, prior to dewatering the wells. The ERM-West report refers to the Wet Weather and Blue Sky Limestone units as being a continuous unit, and that upper limestone was hydraulically connected to the alluvium east of the original surface outcrops of granite. Figure 1-4 in the ERM-West report show groundwater gradients in the alluvium flow south-southwest in the eastern part of the Site and flows west in the southwestern part of the Site. ERM-West's report also states that inference of the hydraulic connection in the lower limestone and alluvium were very strong.

According to ERM-West report, the onsite production wells, Well 88-1 and Well 60-1, are screened in the Chino limestone and alluvium, respectively. The report also indicates that groundwater recharge to Well 88-1 which draws groundwater from the Chino Limestone is from several sources that include, direct precipitation, alluvial river deposits in direct contact with the northern Chino limestone, water from the Chino limestone aquifer, and the drift that was cut across the deeper portion of the Chino Limestone.

Langan installed monitoring well MW-4 in November 2016. The purpose of this well was to evaluate groundwater conditions in the area of the septic tank system operations. Langan conducted monitoring and groundwater sampling events in November/December 2016, March 2017, and May 2017. During each of these events, groundwater levels were measured and

samples were collected from monitoring wells MW-3, MW-4, and the Northern Monitoring well.that is located on the northern parcels of the proposed Agua Mansa Commerce Park development.

Concurrent with historical documents (discussed in later sections of this report), and the results of the recent investigation, groundwater flow in the shallow alluvial aquifer is likely towards the Santa Ana River, or towards the south to southeast. This flow direction is generally similar to the regional groundwater flow. Groundwater was measured in the wells onsite at depths between 60 and 135 feet below ground surface (bgs).

4.0 STUDY AREAS

The Site has been subdivided into four (4) study areas for site investigation purposes based on the pre-designated lots (A through D, see Section 1.0). A description of each study area, features in each study area, and tabular summary of each study area is provided below:

Former Operations Area

This area corresponds to Lot A (See Section 1.0) and is approximately 5 acres. It includes three mine vents, a CKD containing soils area, and seven (7) buildings that supported the original mine/quarry operations. Most of the buildings were constructed in the early 1900s when the plant and mining operations began. The buildings/structures included Kaolin storage, a pilot plant (i.e. kiln), a concrete testing lab, a material testing lab, a mine repair shop (converted to a boneyard following demolition of the building), a change house, library, electrical operations, compressor, welding operations, and administrative offices. The Former Operations area is proposed to be redeveloped into a parking lot, administrative offices, cultural/museum center, and walking and view points as part of the recreational park.

According to RWQCB records referenced in a 2009 DTSC site screening assessment for the former RCP site, old mine vents were reportedly used to place various waste materials, however, there has been no conclusive evidence to corroborate this claim or document specific types of waste materials. Subsequent discussions with the site manager during a site visit with DTSC on 28 November 2018 indicated that there was no placement of materials within the mine vents; it was deterioration of the mine vent. The three mine vents are located at the northeastern portion of this study area (See Figure 4). A structure with a platform near the road to Crestmore Lake was observed during the site visit on 28 November 2018 and determined to be a mine vent. A small old shack was observed to the west of Crestmore Lake and was determined to be a radio transmitter tower/building. This building was observed during the site visit on 28 November 2018.

The features of interest contained within the buildings include a former transformer, a 250-gallon hydraulic fluid reservoir, and a demolished former blacksmith shop. A detailed list of features located within this study area is listed below in Table 2.

Table 2: Former Operations Area Features

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS OF FEATURE
Pilot Plant	Former Small-scale Kiln (removed)	Approximately 1960s – 2016	Processed raw material into clinker product	Approximately 60' x 130', 5' deep
	Former Furnace	Approximately 1960s – 2016	Processed raw material into clinker product	
Concrete Testing Lab	Former Transformers (2) (removed) (REC-7)	Early 1900s – 2017	--	Corroded and in poor condition before removal, no PCBs detected, currently in Packhouse
Demolished Mine Repair/Boneyard	Demolished Mine Blacksmith Shop (REC-3)	early 1900s – 1950s ("demoed before 1960s")	Repair of mining tools/machinery	30' x 25', 3' deep (foundation), likely used quenching fluids such as oils or brines
Material Testing Lab, Change House, Library, Admin Offices	250-Gallon Hydraulic Reservoir, Pump, Hoses (REC-5)	Early 1900s-2000s	Held system fluid (likely oil) in hydraulic system	250 gallon volume, 5' x 5'?, connected to concrete breaker in Material lab
East of Welding Shop	Mine Vents (2) (REC-2)	Early 1900s – late 1980s	Provided airflow to Crestmore mine	Unknown
South of Former Electrical Building				
North of Compressor Building	Mine Vent (REC-2)	Early 1900s – late 1980s	Transported ores and minerals from Crestmore mine, potential waste disposal	Unknown

Quarry Area

This area corresponds to Lot B (See Section 1.0) and is approximately 66 acres. It includes the former Commercial Quarry, unpaved roads, estimated mapped CKD containing soil areas, the flooded former Crestmore mine (now Crestmore Lake), an unknown well, overflow standpipe,and Union Pacific Railroad tracks that traverse the western boundary of this area. The former Commercial Quarry was used for mining limestone for the former RCP operations. The Crestmore mine served as a mine for RCP operations until the underlying aquifer was encountered in the mid-1980s and the mine vents were flooded. The existing lake is not considered a feature of interest as part of this SAWP since there will be engineering controls such as fencing and warning placards, implemented as part of the proposed development to restrict access to the lake. In addition, prior sampling efforts conducted at nearby groundwater wells (MW-3 and MW-4) and within the surface water body indicate groundwater underlying the Site appears to be consistent with regional concentrations of COPCs.

The proposed development plan for this lot (Quarry Area) is to create walking and hiking trails along the southern and eastern portions of the Quarry Area along the existing unpaved roads, various viewpoints and shade areas overlooking the Crestmore Lake, and open space (Figure 4).

According to RCP management, an estimated 250,000 tons of CKD was generated by the former site operations between approximately 1955 and 1979 (ERM, Technical Evaluation 9/30/90 EPA FIT Report, Riverside Cement Company Crestmore Plant, dated November 1991). Historical documentation indicates that some of the CKD was placed on the Site in the Commercial Quarry and an area southwest of the Commercial Quarry (ERM, Technical Evaluation 9/30/90 EPA FIT Report, Riverside Cement Company Crestmore Plant, dated November 1991). Although historical documents indicate that the majority of the CKD at the Commercial Quarry was removed and recovered in the late 1980s for mill or kiln feed supplement (ERM EPA FIT Report, 1991), visual observations from site visits on February 28, 2017 and May 11, 2018 identified the potential presence of CKD containing soils in an area southwest of the Commercial Quarry. The Commercial Quarry was also historically used to contain water from the mining operations until the underlying aquifer of the Crestmore mine was encountered in the mid-1980s and the water from the Commercial Quarry drained into the existing lake.

Historical documents (referenced in Langan's Preliminary Environmental Assessment report, dated 20 December 2017) also suggest that the CKD and refractory brick may have been placed along the southern portion of the Site north of groundwater monitoring well MW-3. The limits of the suspected CKD containing soil areas are shown in Figure 4. A 1,500 to 2,000-gallon above-ground storage tank (AST) is located on the northern edge of the Commercial Quarry. A groundwater monitoring well (MW-3) is located along the southern border of area Lot B. A list of features located within this study area boundaries are presented in Table 3 on the following page.

Table 3: Quarry Area Features

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
Commercial Quarry and south of Quarry	CKD Containing Soil, refractory brick (REC-1)	Approximately 1955-1979	Mining and staging of CKD soils and materials	Visual observations identified potential presence of CKD with possible refractory brick.
	1,500-2,000-gallon AST (REC-4)	Early 1900s – 2000s?	Fuel source	Large tank located on northern border of Quarry, viscous oil and staining observed below valve
	Water Monitoring Well (MW-3)	1993 - present	Monitors alluvial groundwater	4-inch PVC monitoring well Total depth of 89 feet bgs
Crestmore Mine	Crestmore Lake	Mining operations from early 1900s – mid 1980s, Flooded and lake formation late 1980s	Mining of limestone materials	Approximately 6 acres. Not included in this SAWP
Northwest of Commercial Quarry	Unkonwn Well	Unkown	Unkown	Visual observation of a 12-inch pipe with a metal cover welled on top and pipelines laying near it.
	Overflow Standpipe			
Unpaved roads	Unpaved roads	Early 1900s – present-day	Hauling of mined materials, transportation of equipment and personnel	Unpaved road (7 to 10 feet wide) along the southern and eastern boundary of the Site. To be redeveloped into hiking and biking paths using potential crushed aggregate material.

Vacant Land Area

The vacant land area is approximately one (1) acre and corresponds to Lot C (see Section 1). This area consists of a natural flood control drainage channel which connects to the 84-inch storm drain system to the west. Lot C also contains two storm manways. The UPRR track runs along the north and eastern portion of the Lot C.

Septic Tanks/Piping Area

The septic tank/piping area is approximately 3.25 acres and corresponds to Lot D (Section 1.0). Historic sewer and leachfield lines potentially could be located on Lot C as well. This area potentially contains the former septic tanks, associated sewer and leachfield lines that were used for the former RCP site. A groundwater monitoring well (MW-4) is located within the central portion of this Septic Tank Lot area. A list of the features located within this study area is listed below.

Table 4: Septic Tanks/Piping Area Features

BUILDING/STRUCTURE	FEATURE	AGE OF OPERATION	USAGE	DESCRIPTION/DIMENSIONS
Central Area	Water Monitoring Well (MW-4)	Since November 2016	Groundwater Monitoring	4-inch PVC well completed at 65 feet bgs to monitor shallow alluvial groundwater conditions
Septic Area	Septic Tanks (REC-6)	Since approximately 1960s to present day	Wastewater operations	Approximately 12' wide by 36' long and 15' wide by 27' long. Will be removed during the redevelopment phase.
	Septic Tanks Piping	Since approximately 1960s to present day	Wastewater operations	Vitrified Clay Pipe (VCP) and concrete pipe. Will be removed during the redevelopment phase.

5.0 REVIEW OF PREVIOUS REGULATORY INVOLVEMENT

The following agencies have been involved at the Open Space portion of the RCP:

- South Coast Air Quality Control District (SCAQMD)
- Santa Ana Regional Water Quality Control Board (SARWQCB)
- Department of Toxic Substances Control (DTSC)

The primary agencies involved with the RCP have been the SCAQMD, SARWQCB, and DTSC. The northern portion of the RCP (not included in this SAWP) was primarily governed by waste discharge requirements (WDRs) overseen by the SARWQCB and air quality emissions from the cement manufacturing process overseen by the SCAQMD. The SARWQCB has also been involved with the groundwater sampling, analysis, and reporting events for the onsite groundwater monitoring wells, which have been summarized in Langan's Preliminary Environmental Assessment (PEA) Report, Agua Mansa Commerce Park, Jurupa Valley, Riverside County, California dated 20 December 2017. On July 13, 2017, DTSC became the lead oversight agency of the former RCP for environmental assessments through the proposed redevelopment. The SCAQMD has continued to oversee the potential for air quality impacts that will continue through the decommissioning and grading phases of the proposed redevelopment under Rule 1156. Riverside County has been involved with the RCP previously, before the property was divided into the northern and southern portions, for the closeout of underground storage tank (UST) and above ground storage tank (AST) releases. There were no documented USTs or ASTs within the southern Open Space parcels. A summary of prior agency engagement with the former RCP is provided in Table 5 below.

Table 5: Prior Agency Engagement

Agency	Timeframe	Relevant Inspections/Permits	Function	Status
SCAQMD	1970s - 2018	Rule 1156	Monitor air quality of cement manufacturing process	Ongoing
DTSC	2006 - 2018	Environmental Site Assessments, decontamination, decommissioning, site grading	Environmental Assessment	Ongoing
SARWQCB	1973 - 2017	Waste discharge requirements Order 78-27 and 98-77, boiler blowdown pond closure	Regulate RCP waste discharge, oversee the closure of the boiler blowdown pond	Closed

Agency	Timeframe	Relevant Inspections/Permits	Function	Status
DOGGR	1993-present	Annual reports, surface mining inspection reports	Mine operations	Closed
SARWQCB	1990 – 2000s	Potential groundwater impacts from CKD containing soil	Oversight of groundwater impacts lead by the RWQCB.	Closed
Riverside County	1990s	Workplans, well installation reports, UST Closure Inspection Reports, UST Permits for Closure, UST Closure/Abandonment Applications	Closeout of UST and AST releases	Closed

6.0 PREVIOUS SITE INVESTIGATIONS

Quarry Area

In December 1996, investigations including the installation and sampling of groundwater monitoring well, MW-3 by ERM-West, Inc. An annual groundwater monitoring report summarized the depth to groundwater in MW-3 and the laboratory results for the groundwater samples. Groundwater depth was measured at 74 feet to 76 feet below the top of casing. Groundwater samples were analyzed for metals, total dissolved solids, turbidity, alkalinity, chloride, color, fluoride, nitrate (NO_3), odor, pH, specific conductance, sulfate, and MBAS (surfactants). Groundwater sample results were compared to USEPA and State of California drinking water maximum contaminant levels (MCLs).

Additional groundwater sampling of monitoring wells MW-3 and MW-4 was conducted by Langan in November/December 2016 and March and May 2017. Cr^{VI} was detected at MW-3 during these events at 19 µg/L, 17 µg/L, and 16 µg/L respectively, which was below the current California MCL (50 µg/L). Cr^{VI} concentrations have remained below the Cr^{VI} MCL at MW-4 during the three sampling events. With the exception of trans-1,2-dichloroethene (t-1,2-DCE), no volatile organic compounds (VOCs) have been detected in groundwater samples collected from MW-3 and MW-4. During the November 2016 sampling event, t-1,2-DCE was detected below the MCL (10 µg/L) in MW-3 (0.43 µg/L) and MW-4 (0.66 µg/L). T-1,2-DCE was not detected in MW-3 or MW-4 during the December 2016 sampling event. Surface water samples were also collected from the Crestmore Lake during the 28 March 2017 groundwater sampling event. No metals were detected above their respective California MCLs in the surface water samples. The full results of these sampling events are detailed in Langan's PEA report dated 20 December 2017.

Langan completed a Phase I Environmental Site Assessment (Phase I ESA) in March 2017 and updated the Phase I ESA in May 2018 to document potential recognized environmental

conditions (RECs) and historical operations. The results of this assessment were presented in Langan's updated Phase I Environmental Site Assessment for Rubidoux/Agua Mansa Open Sapce, Jurupa Valley, California dated 24 May 2018. Three RECs were identified in the Langan Phase I ESAs (23 March 2017 & 24 May 2018) report. The RECs include the CKD containing soil and the 1,500 to 2,000-gallon AST in the study quarry area. No Historical RECs (HRECs), Controlled Recognized Environmental Concerns (CRECs), or non-ASTM environmental concerns were identified during this Phase I ESA update.

Former Operations Area

SARWCB annual storm-water discharge reports from 2007 to 2013 summarize the laboratory results for storm-water samples that are discharged from the RCP. Riverside Cement Company received a failure-to-comply notice in August 2008 for not submitting an annual report by 1 July 2008. Riverside Cement Company submitted the annual storm-water discharge report on September 2008.

In May 2009, a site screening assessment prepared by DTSC to evaluate hazardous materials usage/releases from the former RCP noted that, according to RWQCB records, old mine shafts were used to dispose of various wastes.

As indicated above, Langan completed a Phase I ESA for the Open Space to document potential RECs and historical operations. The RECs identified included CKD containing soil, mine vents, transformers, former blacksmith shop, and the 250-gallon hydraulic fluid reservoir in the study area. According to Pat Crites, the RCP Site Manager, the transformers (REC-7) had been tested for PCBs in late 2017. No PCBs were detected and the transformers were moved to the Packhouse, awaiting off-site disposal. Martin Marietta have the full PCB analysis details and results; a copy of the analytical results has been requested but has not yet been received. No Historical RECs (HRECs), Controlled Recognized Environmental Concerns (CRECs), or non-ASTM environmental concerns were identified during this Phase I ESA update.

Septic Tanks/Piping Area

Langan installed groundwater monitoring well MW-4 to evaluate groundwater conditions in this area. The information generated from this activity was presented in Langan's PEA dated 20 December 2017.

Vacant Area

No historical investigations were conducted in this study area.

Other Activities

Hexavalent Chromium Soil Sampling

On 21 March 2018, Langan personnel collected a total of five (5) soil samples (CKDSP-1 through CKDSP-5) from specific areas of the Site where there is suspected CKD containing soils to determine the chemical composition of the material. The locations of the samples are shown on Figure 4.

The soil samples were collected by hand using a standard shovel. At each location, an approximately 8-inch to 12-inch small pit was dug and the soil was placed in two, 8-oz. laboratory supplied glass jars and sealed with a screw cap. The shovel was cleaned prior to sampling and between sample locations using a wire brush to remove soil from the end of the shovel. The sample containers were placed in an ice chest, recorded on a chain of custody (COC) and relinquished to SunStar Laboratories, Inc. (Lake Forest, California) for chemical analyses. The samples were analyzed for Title 22 Metals and Hexavalent Chromium (Cr^{VI}) using EPA Methods 6010/7000 series and EPA Method 7199, respectively, on a normal turnaround basis. The analytical results were compared to the Department of Toxic Substance Control (DTSC) industrial Screening Levels (SLs), dated February 2018, and Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) for industrial soil, dated November 2017.

According to the results, two samples (CKDSP-4 and CKDSP-5) exceeded the commercial/industrial screening levels (SLs) for arsenic. The reported concentrations (6.6 mg/kg and 6.8 mg/kg) for arsenic are within the range of background concentrations that are reported in the region (Bradford, 1996 and Chernoff, 2008). Cadmium was reported above the DTSC commercial/industrial SL of 7.3 mg/kg in one sample, CKDSP-5 (21 mg/kg). Lead was reported above the RWQCB environmental screening level (ESL) and DTSC SL in one sample, CKDSP–5 (540 mg/kg). Hexavalent chromium was reported below the reported commercial/industrial SLs of 6.3 mg/kg in all five soil samples analyzed. A summary table of the results is provided in Appendix A.

Groundwater Sampling Report

Langan submitted a groundwater monitoring summary report to the SARWQCB to support a no further action (NFA) determination with respect to environmental assessment, remediation, and groundwater monitoring at the Site. The letter was submitted to the SARWQCB prior to the establishment of the CLRRA agreement with the DTSC. The SARWQCB was informed of the DTSC becoming the lead agency on the project and has transferred the project to DTSC in regards to the surface water and groundwater for the Site. As indicated above, Langan conducted sampling events in November/December 2016 and March 2017 and May 2017 where groundwater samples were collected from MW-3, MW-4, and the Northern Monitoring Well. These results were summarized in Langan's PEA dated 20 December 2017. .

7.0 PROPOSED INVESTIGATION PLANS

Based on the results of the Phase I ESA, historical cement plant operations, site visits and discussions with DTSC, the following present a proposed site assessment program to evaluate the identified RECs, COPCs, and potential presence and extent of CKD containing soil to satisfy DQO-1, DQO-2, and DQO-3. In addition, the layout of the sample locations and analytical testing has been developed to provide data to evaluate the potential for human health exposure concerns during redevelopment and post-redevelopment phases.

Also, a biological evaluation has been conducted for inclusion into the Draft Environmental Impact Report (DEIR) that is currently being prepared as part of the overall project. The biological evaluation identified various species that have been observed onsite, in the vicinity of the Site, and potential to occur at the Site. The sampling program that is presented in more detail below has been designed to collect representative data to provide an empirical evaluation of potential impacts to these potential sensitive receptors.

The approach to the evaluations for human health and biological exposure is to initially use published information as a screeing tool to assess potential concerns and evaluate whether a comprehensive risk assessment is warranted. As part of the proposed development, engineering controls are proposed to restrict access to certain portions of the Site that will include Crestmore Lake and the quarries.

The proposed site assessment will consist of excavating and sampling fourteen (14) trenches (OS-1 through OS-14) to address the RECs identified during Langan's Phase I ESA, twenty (20) composite sample locations grouped into four (4) sets (OSG-1-1 through OSG-1-5; OSG-2-1 through OSG-2-5; OSG-3-1 through OSG-3-5; and OSG-4-1 through OSG-4-5) to sample the topsoil above a granite outcrop, two (2) composite sample locations (CL-1 and CL-2) of a cementitious coating over the soils west of the Crestmore Lake, five (5) composite sample locations (VP-1 through VP-5) to evaluate areas in and around the viewing areas for the proposed development, nineteen (19) composite sample locations grouped into four (4) sets (TL-1-1 through TL-1-5; TL-2-1 through TL-2-5; TL-3-1 through TL-3-5; and TL-4-1 through TL-4-4) to evaluate shallow soil conditions along the proposed hiking/biking trail, two (2) trenches (WC-1 and WC-2) to sample white cementitious material identified during the site visit on 28 November, 2018, five (5) sample locations (CKDSP5-SO1 through CKDSP5-SO5) to evaluate the cadmium and lead exceedances at CKDSP-5, and three sets of composite samples (SW-1, SW-2 and SW-3) to evaluate soil conditions around the Commercial Quarry and septic tank system areas. Three (3) deeper hand auger borings (CQ-1 through CQ-3) will be advanced within the Commercial Quarry area to evaluate fill material above and below the water table; a groundwater sample is proposed in addition to the soil samples taken from each boring. Samples TL-2-1 through TL-2-5 and TL-3-1 through TL-3-5 will also be used to evaluate soils in the vicinity of two unknown structures identified in the 1931 aerial photograph of the Site.

There are bench rest points located along the trails of the proposed redevelopment. One discrete sample location will be targeted for each of the twenty-one (21) proposed bench rest points. Some of these bench rest points are within or close to areas already proposed for sampling; the additional bench rest points will require additional soil samples (BP-1 through BP-7). Two Geoprobe soil gas samples are proposed at OS-1 and OS-2 within the septic tank area to evaluate potential VOCs.

The data collected from this sampling program will be used to develop a Response Plan as well as evaluate potential impacts to onsite receptors and human health exposure during post site development. All samples will include 0.5 and 2 feet depth intervals for metals and hexavalent

chromium, except samples that do not extend to 2 feet bgs, to evaluate for ecological risk. The samples proposed in the area of the Commercial Quarry will be collected with hand augers to minimize the disruption to the habitat that is present in that area. It should be recognized that buildings/structures located on Lot B are still in place and therefore soil beneath these structures will not be evaluated during this phase. If necessary, evaluation of the soils beneath these buildings/structure can be evaluated following demolition activities. The proposed sampling locations are shown on Figure 4. The sample locations, except for the hand auger locations, will be excavated using a standard backhoe and/or excavator.

Prior to conducting subsurface activities, Underground Services Alert (USA) will be contacted a minimum of 48-hours prior to commencing field activities. In addition, a private geophysical locating firm will be contracted to attempt to clear certain areas of potential underground utilities using ground penetrating radar (GPR) and other subsurface utility location techniques. Langan will mark the proposed hand auger and test pit locations in advance of the utility clearance. During the mark-out, Langan will coordinate with an onsite representative who is familiar with the former RCP to confirm that each of the proposed boring and test pit locations are free of known subsurface utilities.

The field work will be conducted under the previously prepared Health and Safety Plan for the investigation conducted on the northern portion of the Site (i.e. Agua Mansa Commerce Park). Details of the sampling methodology and quality assurance/quality controls will conducted in accordance with the previously prepared Sampling Analysis Plan (SAP) and Quality Assurance and Quality Control Plan (QAPP) for the investigation conducted for the Agua Mansa Commerce Park.

Field activities will be observed on a full time basis by a degreed, experienced Langan engineer, geologist or scientist under the supervision of a licensed professional geologist or engineer. Field observations will be recorded on field data sheets. Sampling tools, drilling equipment and other equipment coming into contact with soils will be decontaminated prior to use at each investigation location using a non-phosphate detergent such as Alconox or equivalent and rinsed

with clean water and/or a wire-brush to remove soil and debris from the tools.

Composite Sampling

Composite samples will be collected from the VP, TL, OSG, CL, and SW locations, as well as OS-3. Table 1 presents the details for each of these sample locations. For the VP and TL locations, samples will be collected at 0.5 feet, 2 feet, and 5 feet below ground surface (bgs). Each depth interval (i.e., two feet) will be composited to create one representative sample from that depth interval at each of the locations. Only like material will be composited; CKD-containing soil will not be composited with non-CKD-bearing soil, and only soils with similar colors and grain sizes will be mixed. The same process will be conducted for samples collected at the other three depth intervals. A total of 75 discrete samples at VP-1 through VP-5, 57 discrete samples at TL-1-1 through TL-4-4, 40 discrete samples at OSG-1-1 through OSG-4-5, and 10 discrete samples at CL-1 and CL-2 will be collected for composite sampling. OSG-1-1 through OSG-4-5 will be advanced to 1 foot bgs or refusal, which ever occurs first, since they are located on top of a weathered granitic surface. CL-1 and CL-2 will be surficial samples collected from cementitious coatings over the soil with a sampling depth of less than 0.5 feet bgs.

For the SW locations, samples will be collected at 0.5, 2, and 5 feet bgs and composited at each depth interval to create one representative sample. SW-1 and 2 will be collected from potentially CKD-containing soils in the Commercial Quarry area; the individual sampling locations will be field-chosen based on observations of CKD material. The sampling area for SW-3 was determined based on a potentially oiled road surface identified in a 1968 aerial photograph. A total of three (3) samples will be collected from each depth interval (0.5, 2, and 5 feet bgs) for SW-1, and a total of five (5) samples will be collected for each depth interval for SW-2 and SW-3. A total of 44 discrete samples will be collected for the SW locations. Should field conditions warrant, discrete samples will be taken in lieu of composite samples.

The area around sample OS-3 was linked with CKD production due to the former pilot kiln and furnace. Contamination in this area would be expected to be due to aerial deposition or surficial discharges. As such, sample OS-3 will be a five-point composite sample of the surface and shallow subsurface (0.5 and 2 feet bgs) of this area.

The composite samples will be created by placing the soils from each depth interval per location into a stainless-steel bucket and mixed until homogeneous. The mixing will consist of using either hand tools (i.e., trowel) or power tools (i.e. drill with mixing paddle) that are of stainless steel

construction. The composite samples for each depth interval for chemical analysis will be placed in laboratory supplied glass jars, labeled, stored on ice, and transferred to a State-certified analytical laboratory under chain-of-custody protocol. The laboratory will retain the received discrete samples from VP, TL, CKDSP5-SO, and SW sample locations for potential future analyses if elevated concentrations are detected in the composite samples.

The trowels, mixing paddles, hand augers, and any other equipment coming into contact with soils will be decontaminated prior to use at each location using a non-phosphate detergent such as Alconox or equivalent and rinsed with clean water or a wire-brush to remove soil and debris from the tools. An additional detergent wash and final rinse should follow dry decontamination with a wire-brush.

Test Pits

Eighteen (18) test pits (OS-4 through OS-14, WC-1 and WC-2, and CKDSP5-SO1 through CKDSP5-SO5) will be excavated at locations marked and cleared for subsurface utilities. The OS test pits will be excavated to a depth of up to 20 feet bgs, except OS-12, OS-13, and OS-14, at the discretion of Langan field personnel by a subcontractor using an excavator or similar equipment. Test pit OS-12 will be excavated to a depth of approximately 15 feet bgs and test pits OS-13 and OS-14 to approximately 5 feet bgs unless refusal occurs due to subsurface conditions. The WC-1 and WC-2 test pits will be excavated to a depth of 5 feet bgs. CKDSP5-SO1 through CKDSP5-SO5 will be taken approximately 20 feet apart around identified impacts detected in CKDSP-5, and samples will be collected from 0.5, 2, and 5 feet bgs. There is the potential for refractory brick to be encountered in the vicinity of the CKDSP5-SO samples; if refractory brick is encountered, it will be removed as practical.

The soil will be screened using a photoionization detector (PID), visually examined, and classified in the field in accordance with the Unified Soil Classification System (USCS). Excavated soils will be stockpiled at least five feet from the edge of the excavation for further characterization and sampling, as necessary. Soil samples will be collected from the initially exposed side walls or pit floors to ensure slough material is not co-mingled with the samples.

Following completion of field observation and sampling activities, the test pits will be backfilled with excavated soils and partially compacted using the excavator bucket. Soil with suspected impacts based on PID readings will be segregated, wrapped in visqueen and analyzed. All test pit locations will be staked or marked to allow subsequent surveying of coordinates by Langan personnel for preparation of as-built drawings, as necessary.

Periodic dry decontamination of the excavator bucket will be conducted and if suspected

contamination is encountered. This process will include removal of debris/soil that may be attached to the bucket using shovels and/or brushes. If necessary, the bucket will be cleaned with a pressure washer.

Geoprobe Soil Borings

Two (2) locations (OS-1 and OS-2) will be advanced using Geoprobe drilling equipment. The locations will be drilled to ten (10) feet below the bottom of the septic tank feature. Samples will be collected at 0.5, 1, 2, and 5 feet bgs and then at 5 foot intervals to the termination depth or refusal.

The soil will be screened using a PID, visually examined, and classified in the field in accordance with the USCS. Soil samples exhibiting characteristics that may be indicative of potential environmental concerns (including staining, odors, VOC impacts, or evidence of non-native materials such as CKD) will be submitted to a California state-certified analytical laboratory for chemical analysis. Soil samples selected for laboratory analysis will be transferred to laboratory supplied sample containers for the appropriate testing, labeled, stored on ice, and transferred to a State-certified analytical laboratory under chain-of-custody protocol.

The trowels, mixing paddles, Geoprobe equipment, and any other equipment coming into contact with soils will be decontaminated prior to use at each location using a non-phosphate detergent such as Alconox or equivalent and rinsed with clean water or a wire-brush to remove soil and debris from the tools. An additional detergent wash and final rinse will follow dry decontamination with a wire-brush.

Hand Auger Soil Borings

Three (3) locations (CQ-1 through CQ-3) will be advanced using hand auger equipment. CQ-1 through CQ-3 will be advanced until the water table is encountered or it becomes impractical to continue, whichever is first. Samples will be taken at 0.5, 2, and 5 feet bgs and then after every 5 feet until groundwater is encountered. If groundwater is encountered, all the soil depth intervals will be analyzed.

The soil will be screened using a PID, visually examined, and classified in the field in accordance with the USCS. Soil samples exhibiting characteristics that may be indicative of potential environmental concerns (including staining, odors, VOC impacts, or evidence of non-native materials such as CKD) will be submitted to a California state-certified analytical laboratory for chemical analysis. Soil samples selected for laboratory analysis will be transferred to laboratory supplied sample containers for the appropriate testing, labeled, stored on ice, and transferred to

a State-certified analytical laboratory under chain-of-custody protocol.

The trowels, mixing paddles, hand augers, and any other equipment coming into contact with soils will be decontaminated prior to use at each location using a non-phosphate detergent such as Alconox or equivalent and rinsed with clean water or a wire-brush to remove soil and debris from the tools. An additional detergent wash and final rinse will follow dry decontamination with a wire-brush.

Soil Gas Vapor Probes

The borings for the temporary soil gas vapor points at OS-1 and OS-2 will be advanced as discussed above. The soil gas vapor points will be nested at each location at five (5) and fifteen (15) feet bgs. Soil gas vapor installation and sampling will be conducted in accordance with California EPA and Department of Toxic Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance) dated October 2011. Soil gas samples will be collected at a minimum of 48 hours following installation of the soil gas vapor probes. At least two rounds of soil gas samples will be collected from each of the soil gas vapor points.

Analytical Testing

The proposed analytical testing for the sample locations is presented in Table 1. As indicated in Table 1, the samples will be analyzed for several compounds relative to location (i.e. REC, feature, previous operation, etc.) and will include hexavalent chromium using EPA method 7199, total metals using EPA method 6020, total petroleum hydrocarbons (TPH, carbon chain) using EPA method 8015M, volatile organic compounds (VOCs) using EPA method 8260B, semi-volatile organic compounds (SVOCs) and polycyclic aromatic hydrocarbons (PAH) using EPA method 8270C, dioxins using EPA method 1613, and polychlorinated biphenyls (PCBs). Should groundwater be encountered at CQ-1 through CQ-3, the grab groundwater sample(s) taken will be analyzed for total hexavalent chromium and metals using EPA method 7199 and dissolved hexavalent chromium and metals using EPA ethod 6010/207.7. Soil gas samples will be analyzed for VOCs and TPH using EPA method 8260B. The proposed analytical testing is based on the historical operations at different locations on the Site and the COPCs idenfitied through the investigation on the northern portion of the RCP.

8.0 REPORTING

Upon completion of field investigation and receipt of laboratory analytical results, a Summary of Findings report will be generated. In general the Summary of Findings Report will consist of the following:

- Executive Summary
- Introduction
- Summary of Site Background
    - Site Description and Location
    - Site HIstory
- Sampling Activities and Results
    - Summary of Activities
    - Boring Clearance and Geophysical Survey
    - Soil Sample Collection Procedures
    - Soil Matrix Analytical Results
        - Volatile Organic Compounds (VOCs)
        - Total Petroleum Hydrocarbons (TPHs)
        - Metals and Hexavalent Chromium (Cr^{VI})
        - Other Organics (PCBs, Dioxins, PAHs, SVOCs)
- Deviations from the SAWP
- Evaluation of Results
- Conclusions and Recommendations

9.0 REFERENCES

Langan Engineering and Environmental Services, Preliminary Environmental Assessment, Agua Mansa Commerce Park, Jurupa Valley, Riverside County, California dated 20 December 2017.

TABLES

Table 1
Proposed Sample Locations and Analytical Testing
Open Space
Former Riverside Cement Plant
Riverside, California

SAMPLE ID	Proposed Depth (ft bgs)	Composite	Feature	Rationale	DQO	Analytical Scheme								Groundwater	Soil Gas
						TPH	Cr^{VI}	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Cr^{VI} and Metals (Total and Dissolved)	TPH and VOCs as 8260B
OS-1	20		Sewer and Leachfield Lines	Septic leachfield area. Test for TPH, Cr^{VI}, Metals, and VOCs. Soil Gas at 5' and 15' bgs.	1,2	4 (1', 5', 10', 20')	4 (0.5', 2', 5', 10')	4 (0.5', 2', 5', 10')	4 (1', 5', 10', 20')						2 (5' and 15')
OS-2	20		Septic Tanks (REC-6)	Septic leachfield area. Test for TPH, Cr^{VI}, Metals, and VOCs. Soil Gas at 5' and 15' bgs.	1,2	4 (1', 5', 10', 20')	4 (0.5', 2', 5', 10')	4 (0.5', 2', 5', 10')	4 (1', 5', 10', 20')						2 (5' and 15')
OS-3	2	0.5', 2'	Soil Containing CKD (REC-1), former kiln and furnace	No CKD observed during site visit on 11/28/18 with DTSC. Sample location will target the former kiln and furnace chimney. Test for TPH, Cr^{VI}, Metals, VOCs, SVOCs, PAHs, and dioxins.	1,2	2 (0.5', 2')	2 (0.5', 2')	2 (0.5', 2')		2 (0.5', 2')	2 (0.5', 2')	2 (0.5', 2')			
OS-4	20		Former Transformers (REC-7)	Former transformers. Sample will be taken from the soil pile at the base of the pole-mounted transformers. Test for TPH, Cr^{VI}, Metals, and PCBs.	1,2	3 (5', 10', 15')	4 (0.5', 2', 5', 10')	4 (0.5', 2', 5', 10')					2 (1', 5')		
OS-5	20		Mine Blacksmith Shop (REC-3)	Former blacksmith shop (removed) potential use of oils and lubricants. Test for TPH, Cr^{VI}, Metals, VOCs, SVOCs, and PAHs.	1,2	4 (1', 5', 10', 20')	4 (0.5', 2', 5', 10')	4 (0.5', 2', 5', 10')	4 (1', 5', 10', 20')	3 (1', 5', 10')	3 (1', 5', 10')				
OS-6	20		Mine Vent (REC-2)	Specifics unknown. Test for Cr^{VI} and Metals.	2		4 (0.5', 2', 5', 10')	4 (0.5', 2', 5', 10')							
OS-7	20		Mine Repair	Former mine repair shop (removed). Test for THP, Cr^{VI}, Metals, VOCs, SVOCs, and PAHs.	1,2	4 (1', 5', 10', 20')	4 (0.5', 2', 5', 10')	4 (0.5', 2', 5', 10')	4 (1', 5', 10', 20')	3 (1', 5', 10')	3 (1', 5', 10')				
OS-8	20		250-Gallon Hydraulic Fluid Reservoir (REC-5)	Hydraulic pump. Test for TPH, Cr^{VI}, Metals, VOCs, SVOCs, PAHs, and PCBs.	1,2	4 (1', 5', 10', 20')	4 (0.5', 2', 5', 10')	4 (0.5', 2', 5', 10')	4 (1', 5', 10', 20')	3 (1', 5', 10')	3 (1', 5', 10')		2 (1', 5')		
OS-9	20		Mine Vent (REC-2)	Specifics unknown. Test for Cr^{VI} and Metals.	2		4 (0.5', 2', 5', 10')	4 (0.5', 2', 5', 10')							
OS-10	20		Mine Vent (REC-2)	Specifics unknown. Test for Cr^{VI} and Metals.	2		4 (0.5', 2', 5', 10')	4 (0.5', 2', 5', 10')							
OS-11	20		Soil Containing CKD (REC-1), 1,500-2,000 gallon AST (REC-4)	Potential CKD containing soils. Test for TPH, Cr^{VI}, Metals, VOCs, SVOCs, and PAHs.	1, 2	4 (1', 5', 10', 20')	4 (0.5', 2', 5', 10')	4 (0.5', 2', 5', 10')	4 (1', 5', 10', 20')	3 (1', 5', 10')	3 (1', 5', 10')				
OS-12	15		Proposed Gathering Area	Specifics unknown. Test for TPH, Cr^{VI}, and Metals.	1, 2	3 (5', 10', 15')	4 (0.5', 2', 5', 10')	4 (0.5', 2', 5', 10')							
OS-13	5		Storm Canal Channel	Outfall location of storm drainages. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
OS-14	5		Misc. Trash and concrete cores	Misc. trash and concrete core area, Cr^{VI}, and Metals	1		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
OSG-1-1 through OSG-1-5	1	0.5', 1'	Granite Outcrop/Soil Containing CKD (REC-1)	Intent is to sample the topsoil (1 foot bgs). Test for Metals and Cr^{VI}.	2		2 (0.5', 1')	2 (0.5', 1')							

Table 1
Proposed Sample Locations and Analytical Testing
Open Space
Former Riverside Cement Plant
Riverside, California

SAMPLE ID	Proposed Depth (ft bgs)	Composite	Feature	Rationale	DQO	Analytical Scheme								Groundwater	Soil Gas
						TPH	Cr^{VI}	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Cr^{VI} and Metals (Total and Dissolved)	TPH and VOCs as 8260B
OSG-2-1 through OSG-2-5	1	0.5', 1'	Granite Outcrop/Soil Containing CKD (REC-1)	Intent is to sample the topsoil (1 foot bgs). Test for Metals and Cr^{VI}.	2		2 (0.5', 1')	2 (0.5', 1')							
OSG-3-1 through OSG-3-5	1	0.5', 1'	Granite Outcrop/Soil Containing CKD (REC-1)	Intent is to sample the topsoil (1 foot bgs). Test for Metals and Cr^{VI}.	2		2 (0.5', 1')	2 (0.5', 1')							
OSG-4-1 through OSG-4-5	1	0.5', 1'	Granite Outcrop/Soil Containing CKD (REC-1)	Intent is to sample the topsoil (1 foot bgs). Test for Metals and Cr^{VI}.	2		2 (0.5', 1')	2 (0.5', 1')							
TL-1-1 through TL-1-5	5	0.5', 2', 5'	Soil Containing CKD (REC-1)	Potential CKD containing soils. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
TL-2-1 through TL-2-5	5	0.5', 2', 5'	Soil Containing CKD (REC-1)	Potential CKD containing soils. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
TL-3-1 through TL-3-5	5	0.5', 2', 5'	Soil Containing CKD (REC-1)	Potential CKD containing soils. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
TL-4-1 through TL-4-4	5	0.5', 2', 5'	Soil Containing CKD (REC-1)	Potential CKD containing soils. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
WC-1	5		White Cementitious Material	Soils observed to have white cementitious material, as observed during the site visit on 11/28/18. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
WC-2	5		White Cementitious Material	Soils observed to have white cementitious material, as observed during the site visit on 11/28/18. Test for CrVI and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
SW-1-A through SW-1-C	5	0.5', 2', 5'	Soil Containing CKD (REC-1)	Potential CKD containing soils. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')				2 (0.5', 2')			
SW-2-A through SW-2-C	5	0.5', 2', 5'	Soil Containing CKD (REC-1)	Potential CKD containing soils. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
SW-3-A through SW-3-E	5	0.5', 2', 5'	Southeast of Leachfield	1968 aerial photograph shows potential oiled road. Test for TPH, Cr^{VI}, Metals, SVOCs, and PAHs.	2	3 (0.5', 2', 5')	3 (0.5', 2', 5')	3 (0.5', 2', 5')		3 (0.5', 2', 5')	3 (0.5', 2', 5')				
CKDSP5-SO1	5	0.5', 2', 5'	Soil Containing CKD (REC-1)	Step out testing because CKDSP-5 contained cadmium and lead above SLs. Test for Cr^{VI} and Metals	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
CKDSP5-SO2	5	0.5', 2', 5'	Soil Containing CKD (REC-1)	Step out testing because CKDSP-5 contained cadmium and lead above SLs. Test for Cr^{VI} and Metals	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							

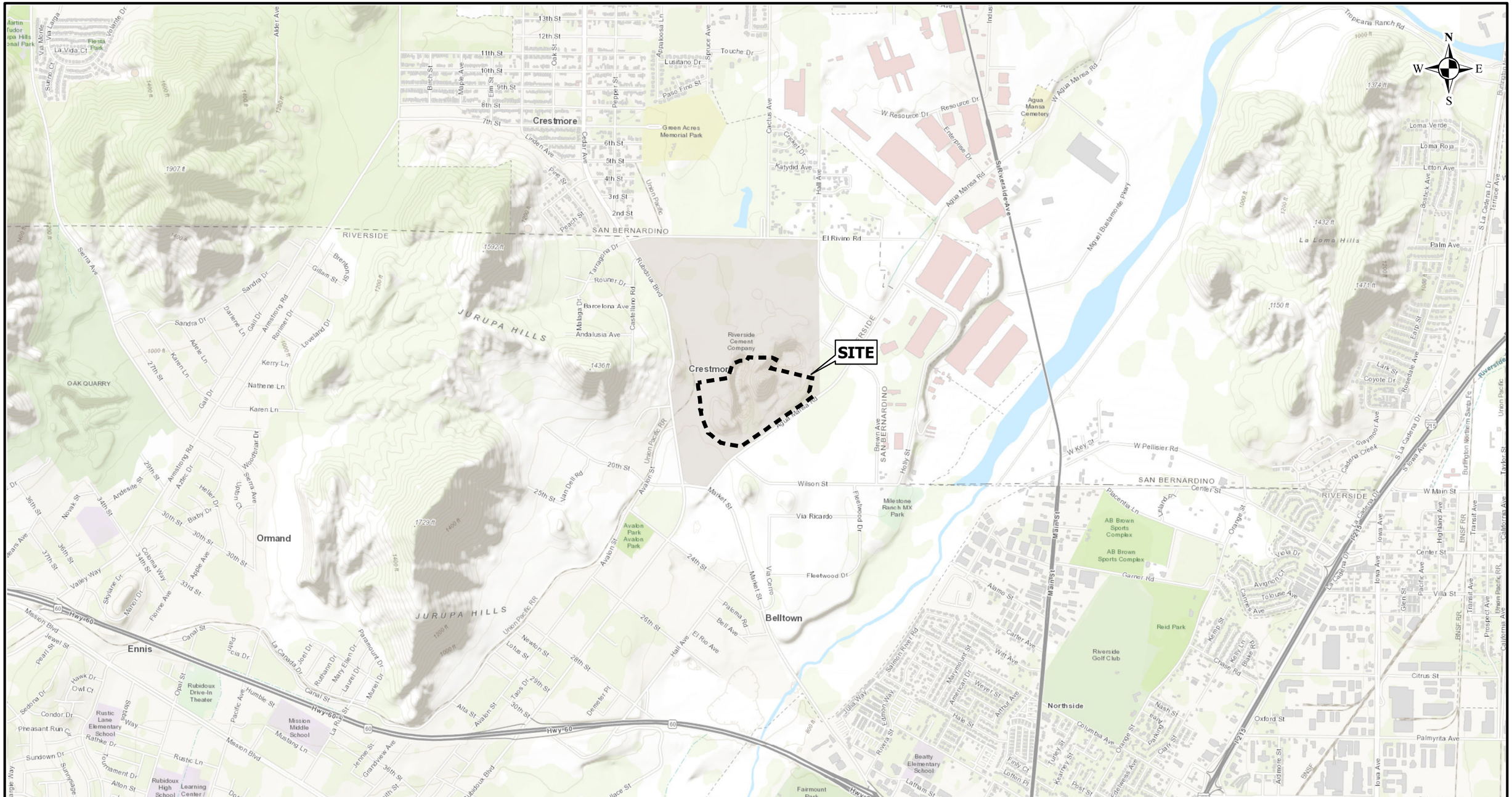
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Open Space
Former Riverside Cement Plant
Riverside, California

SAMPLE ID	Proposed Depth (ft bgs)	Composite	Feature	Rationale	DQO	Analytical Scheme								Groundwater	Soil Gas
						TPH	Cr^{VI}	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Cr^{VI} and Metals (Total and Dissolved)	TPH and VOCs as 8260B
CKDSP5-SO3	5	0.5', 2', 5'	Soil Containing CKD (REC-1)	Step out testing because CKDSP-5 contained cadmium and lead above SLs. Test for Cr^{VI} and Metals	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
CKDSP5-SO4	5	0.5', 2', 5'	Soil Containing CKD (REC-1)	Step out testing because CKDSP-5 contained cadmium and lead above SLs. Test for Cr^{VI} and Metals	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
CKDSP5-SO5	5	0.5', 2', 5'	Soil Containing CKD (REC-1)	Step out testing because CKDSP-5 contained cadmium and lead above SLs. Test for Cr^{VI} and Metals	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
VP-1	5	0.5', 2', 5'	View Point	Potential CKD containing soils. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
VP-2	5	0.5', 2', 5'	View Point	Potential CKD containing soils. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
VP-3	5	0.5', 2', 5'	View Point	Potential CKD containing soils. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
VP-4	5	0.5', 2', 5'	View Point	Potential CKD containing soils. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
VP-5	5	0.5', 2', 5'	View Point	Potential CKD containing soils. Test for Cr^{VI} and Metals.	2		3 (0.5', 2', 5')	3 (0.5', 2', 5')							
CL-1	-	Surface Sample	West of Crestmore Lake	Cementitious coatings over the soil. Test for Cr^{VI} and Metals.	2		1 (< 0.5')	1 (< 0.5')							
CL-2	-	Surface Sample	West of Crestmore Lake	Cementitious coatings over the soil. Test for Cr^{VI} and Metals.	2		1 (< 0.5')	1 (< 0.5')							
CQ-1	Until refusal		Floor of Commercial Quarry	Assess the vertical extent of potential contamination and evaluate potential future impacts to groundwater resources. Sample every 5' after 5' bgs until groundwater encountered, grab groundwater sample tested for Cr^{VI} and Metals. Test soil for Cr^{VI} and Metals.	1, 2, 3		6 (0.5', 2', 5', 10', 15', 20')	6 (0.5', 2', 5', 10', 15', 20')						1 (Field determined)	
CQ-2	Until refusal		Floor of Commercial Quarry	Assess the vertical extent of potential contamination and evaluate potential future impacts to groundwater resources. Sample every 5' after 5' bgs until water table is encountered. If CKD observed and groundwater encountered, grab groundwater sample tested for Cr^{VI} and Metals. Test soil for Cr^{VI} and Metals.	1, 2, 3		6 (0.5', 2', 5', 10', 15', 20')	6 (0.5', 2', 5', 10', 15', 20')						1 (Field determined)	

Table 1
Proposed Sample Locations and Analytical Testing
Open Space
Former Riverside Cement Plant
Riverside, California

SAMPLE ID	Proposed Depth (ft bgs)	Composite	Feature	Rationale	DQO	Analytical Scheme								Groundwater	Soil Gas
						TPH	Cr^{VI}	Metals	VOCs	SVOCs	PAHs	Dioxins	PCBs	Cr^{VI} and Metals (Total and Dissolved)	TPH and VOCs as 8260B
CQ-3	Until refusal		Floor of Commercial Quarry	Assess the vertical extent of potential contamination and evaluate potential future impacts to groundwater resources. Sample every 5' after 5' bgs until water table is encountered. If CKD observed and groundwater encountered, grab groundwater sample tested for Cr^{VI} and Metals. Test soil for Cr^{VI} and Metals.	1, 2, 3		6 (0.5', 2', 5', 10', 15', 20')	6 (0.5', 2', 5', 10', 15', 20')						1 (Field determined)	
BP-1 through BP-7	1		Proposed Bench Rest Points (21)	One discrete sample location will be targeted at each of the 21 proposed bench rest points. Some of these bench rest points are within or close to areas already proposed for sampling; the additional bench rest points (7 within the Play area) will require one additional discrete soil sample. The trenches or borings will extend to 5 ft bgs. Test for Cr^{VI} and Metals.	1, 2		1 (1')	1 (1')							

FIGURES



Legend

Open Space/Recreational Park Boundary

2,000 0 2,000

SCALE IN FEET

Notes:
1. Topographic basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online Copyright: © 2011 National Geographic Society, i-cubed
2. Approximate site limits referenced from plan titled "Crestmore Redvelopment, Jurupa Valley, CA - Preliminary Site Plan - Scheme A.01," Prepared by RGA Office of Architectural Design, Dated 11 May 2016.

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PANAMA DUBAI ISTANBUL

Langan Engineering & Environmental Services, Inc.
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

Project	AGUA MANSA OPEN SPACE/ RECREATIONAL PARK JURUPA VALLEY RIVERSIDE COUNTY CALIFORNIA
Drawing Title	SITE LOCATION MAP
Project No.	721013502
Date	SEPTEMBER 2018
Scale	1 " = 2,000 '
Drawn By	BJS
Figure	1

G-4129

Path: \\langan.com\data\PAR\other\BSAYLOR\GIS_Projects\Agua_Mansa_Crestmore\ArcMap_Documents\Environmental_Figures\Jurupa Activity Park_Open Space\Fig1_Site_Location_Map.mxd

© 2012 Langan



Legend

- New CLLRA Agreement Parcels (75.27 AC +/-)
- Approximate Limits of Former Riverside Cement Manufacturing Plant

300 0 300

SCALE IN FEET

Notes:
1.World aerial imagery basemap is provided through Langan's Esri ArcGIS software licensing and ArcGIS online. Source of aerial imagery is Microsoft from 2011. Credits: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community.
2. Lot lines digitized from "Conceptual Lot Configuration" provided by Viridian Partners, dated 26 July 2018.

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

Project
AGUA MANSA OPEN SPACE/ RECREATIONAL PARK
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

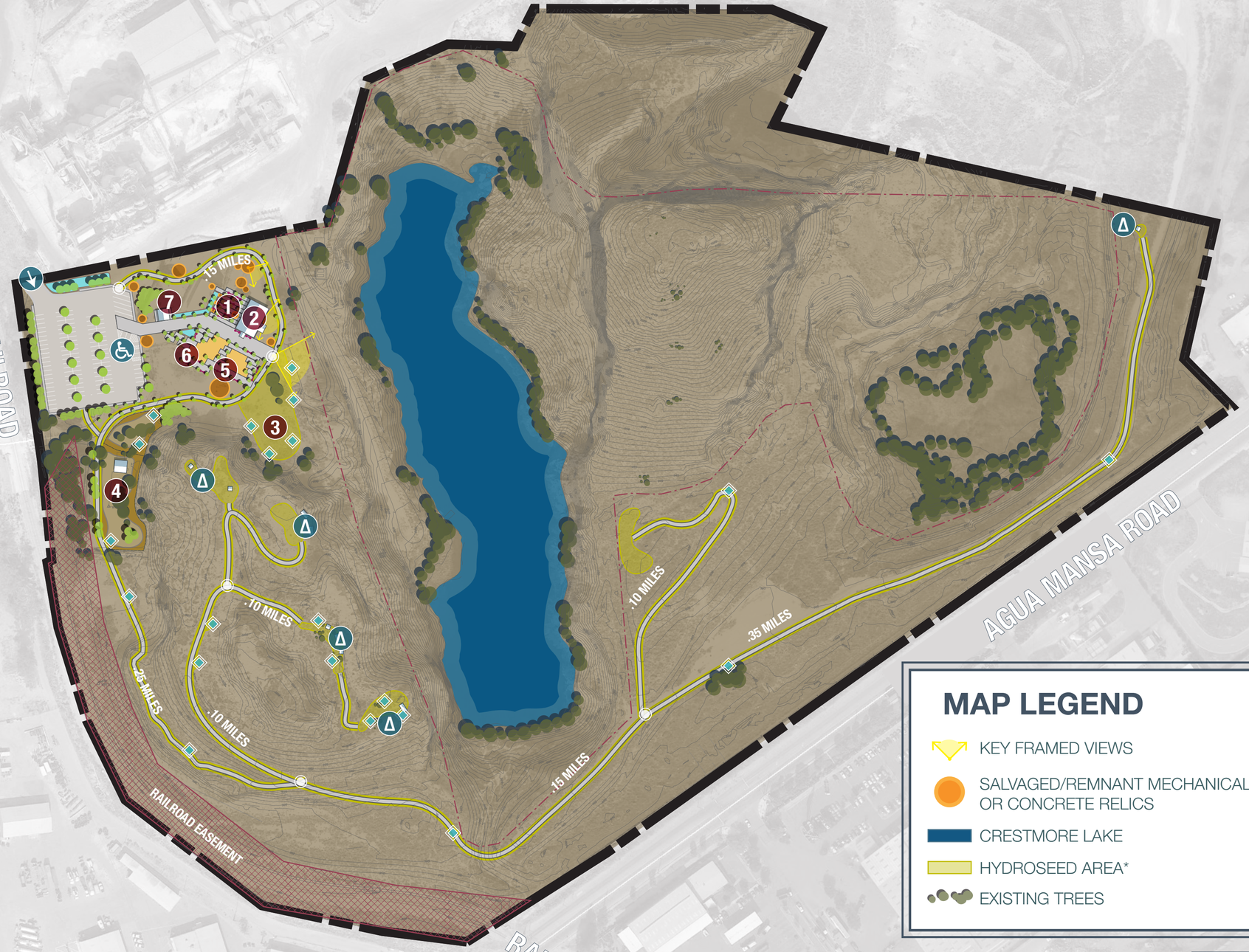
Drawing Title
LOT MAP

Project No. 721013502	Figure 2
Date SEPTEMBER 2018	
Scale 1 " = 300 '	
Drawn By OG	

G-4130

Path: \\langan.com\data\PAR\other\BSAYLOR\GIS_Projects\Agua_Mansa_Crestmore\ArcMap_Documents\Environmental_Figures\Jurupa Activity Park_Open Space\Fig2_Lot_Map.mxd

© 2012 Langan



PROGRAM AREAS

- ENTRANCE
- VIEWPOINT
- ACCESSIBLE PARKING SPACES
- BUILDING / SHADE STRUCTURE
- SEATING FEATURE
- SHADED BENCH RESTING POINT
- 1 SHADE GROVE ENTRY PLAZA
- 2 PROPOSED INTERPRETIVE STRUCTURE
- 3 GATHERING AREA
- 4 FENCED OFF-LEASH DOG AREA
- 5 PLAYGROUNDS
- 6 NON-TRADITIONAL PLAY AREA
- 7 RESTROOM

PARKING INVENTORY

(117) TOTAL
(7) ACCESSIBLE
(105) REGULAR
(5) OVERSIZED

MAP LEGEND

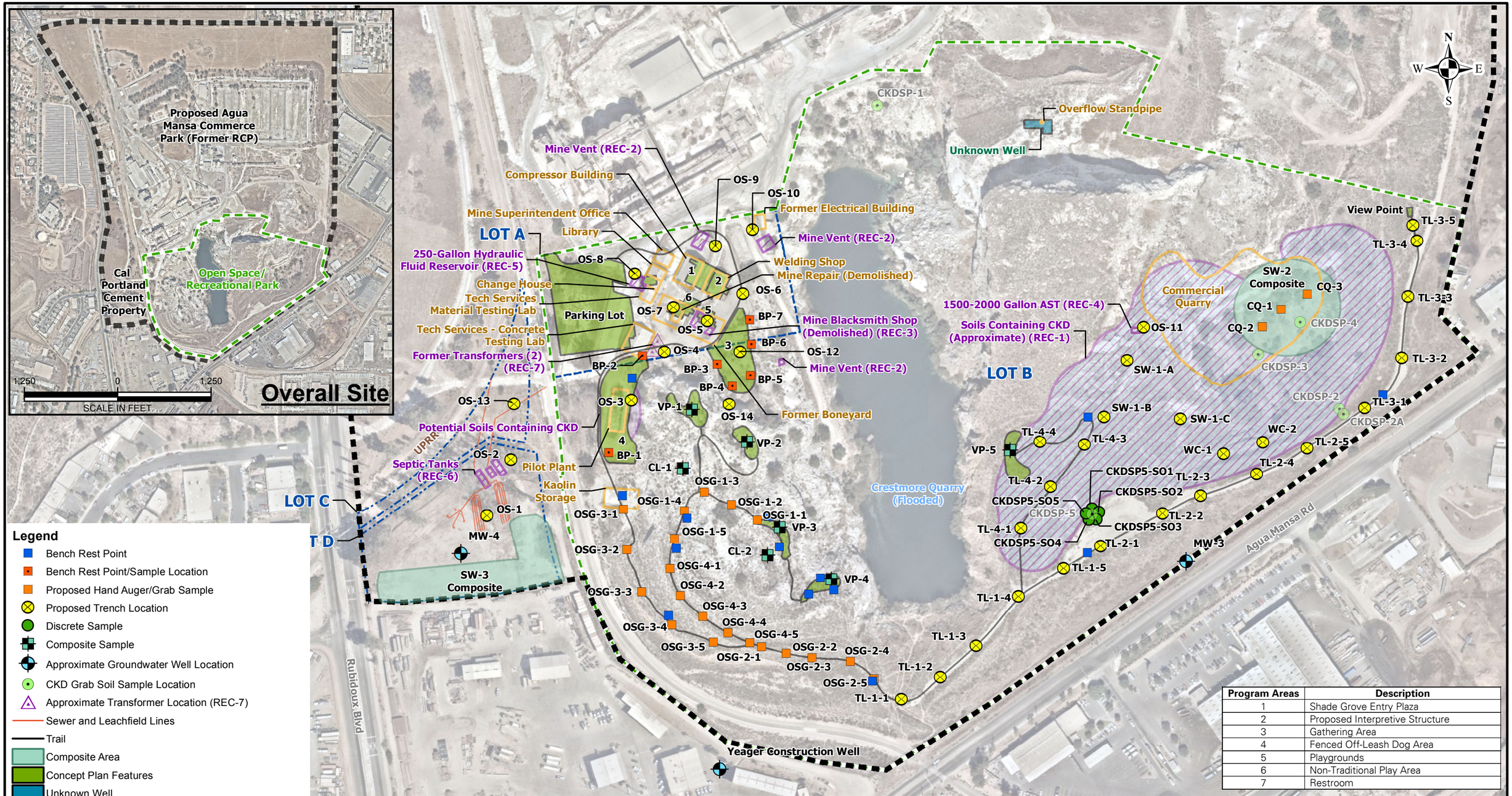
- KEY FRAMED VIEWS
- SALVAGED/REMNANT MECHANICAL OR CONCRETE RELICS
- CRESTMORE LAKE
- HYDROSEED AREA*
- EXISTING TREES
- SHARED USE PATH (6 - 10' WIDE) PEDESTRIAN / BIKING
- TOPOGRAPHY (5' INTERVALS)
- PARK BOUNDARY
- RAILROAD EASEMENT
- PROPOSED RESTRICTED/ LBV PROTECTION AREA
- PROPOSED LANDSCAPING*

NORTH

0 40 80 160 320 FEET

G-4131

* Water conserving irrigation and plantings will be installed around the parking area and entry area. Where soil conditions permit, other disturbed areas will be hydroseeded with a non-irrigated native seed mix to complement existing native vegetation.



Legend

- Bench Rest Point
- Bench Rest Point/Sample Location
- Proposed Hand Auger/Grab Sample
- Proposed Trench Location
- Discrete Sample
- Composite Sample
- Approximate Groundwater Well Location
- CKD Grab Soil Sample Location
- Approximate Transformer Location (REC-7)
- Sewer and Leachfield Lines
- Trail
- Composite Area
- Concept Plan Features
- Unknown Well
- Approximate Location of Key Site Features
- Approximate Location of REC
- Approximate Location of Soils Containing CKD (REC-1)
- Potential Soils Containing CKD
- Lot Area
- Open Space/Recreational Park Boundary
- Former Riverside Cement Plant Limits

250 0 250
SCALE IN FEET

Program Areas	Description
1	Shade Grove Entry Plaza
2	Proposed Interpretive Structure
3	Gathering Area
4	Fenced Off-Leash Dog Area
5	Playgrounds
6	Non-Traditional Play Area
7	Restroom

Notes:
1.Aerial imagery provided by Langan's subscription to Nearmpa.com. Aerial flown on 9/14/2018.
2. Approximate site limits refernced from plan titled "Crestmore Redevelopment, Jurupa Valley, CA - Preliminary Site Plan - Scheme A.01," Prepared by RGA Office of Architectural Design, Dated 11 May 2016.
3. All features shown are approximate.

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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan International LLC
Collectively known as Langan

Project
AGUA MANSA OPEN SPACE/ RECREATIONAL PARK
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

Drawing Title
PROPOSED SAMPLING LOCATIONS - OPEN SPACE/ RECREATIONAL PARK

Project No. 721013502
Date JANUARY 2019
Scale 1 " = 250 '
Drawn By OG
Figure 4

G-4132

Path: \\langan.com\data\PAR\other\BSAYLOR\GIS_Projects\Agua_Mansa_Crestmore\ArcMap_Documents\Environmental_Figures\Jurupa Activity Park_Open Space\Concept_Plan_20181219.mxd

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APPENDIX A

Summary of Hexavalent Chromium Results

Table 1 - Summary of Analytical Results - Southern Parcel
Agua Mansa Commerce Park
CKD Samples
Confidential, Attorney Work Product, Privileged Attorney - Client Communication

Sample No.	Location	Description	Title 22 Metals																	
			EPA Method 6010/7000 (mg/kg)																	EPA Method 7199 (mg/kg)
			Antimony	Silver	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Selenium	Thallium	Vanadium	Zinc	Mercury	Hexavalent Chromium
EPA RSL - Residential			31	390	0.27	15000	160	71	120000	23	3100	400	390	670	390	0.78	390	23000	11	0.3
EPA RSL - Industrial			470	5800	3	220000	2300	980	1800000	350	47000	800	5800	8100	5800	12	5800	350000	46	6.3
RWQCB ESL - Residential			31	390	0.067	15000	150	39	--	23	3100	80	390	820	390	0.78	390	23000	13	0.3
RWQCB ESL - Industrial			467	5840	0.305	217000	2210	578	--	347	46700	320	5840	11100	5840	11.7	5830	350000	187	6.2
DTSC SL - Residential			--	390	0.11	--	15	5.2	36000	--	--	80	--	490	--	--	390	--	1	--
DTSC SL - Industrial			--	1500	0.36	--	210	7.3	170000	--	--	320	--	3100	--	--	1000	--	4.5	--
Southern Parcel																				
CKDSP-1	North slope of Crestmore Lake	Reddish/Brn fine-grain sand with gravel	< 3.0	< 2.0	< 2.0	41	< 1.0	< 2.0	10	3.7	13	17	< 5.0	7.7	< 5.0	< 2.0	18	34	< 0.10	**2.5**
CKDSP-2	Top of Crestmore Quarry east side	Brn fine-grain sand with gravel	< 3.0	< 2.0	< 2.0	72	< 1.0	< 2.0	23	9.8	14	< 3.0	< 5.0	25	< 5.0	< 2.0	28	47	< 0.10	**1.5**
CKDSP-2A	Top of Slope Crestmore Quarry Approximately 200 feet north of CKDSP-2	CKD with brn fine silty sand mixture	**Sample placed on hold**																	
CKDSP-3	Bottom of Crestmore Quarry	Brn fine-grain sand and clay with gravel	< 3.0	< 2.0	< 2.0	43	< 1.0	< 2.0	11	5.2	8.2	13	< 5.0	9.1	< 5.0	< 2.0	19	40	< 0.10	**1.4**
CKDSP-4	Bottom of Crestmore Quarry	Brn fine-grain sand and clay with gravel	< 3.0	< 2.0	**6.6**	70	< 1.0	< 2.0	24	8.6	17	< 3.0	< 5.0	19	< 5.0	< 2.0	37	54	< 0.10	**1.4**
CKDSP-5	Southern Slope on South Parcel north of Agua Mansa Road	CKD with some brn fine-grain sand and clay with gravel	3	6	**6.8**	67	< 1.0	**21**	27	2.2	8.1	**540**	5.1	6.1	8.1	< 2.0	22	33	< 0.10	**2.4**

Notes:
CKD - Cement Kiln Dust
SP - Southern Parcel
Above industrial SLs
Above DTSC and RWQCB industrial SLs

DRAFT SUMMARY OF FINDINGS FOR PARK/OPEN SPACE

EXECUTIVE SUMMARY

Langan Engineering and Environmental Services, Inc. (Langan) implemented the Site Assessment Work Plan (SAWP) for the Agua Mansa Recreational Park/Open Space, approved by the California Department of Toxic Substances Control (DTSC) on 14 January 2019. The Site investigation activities were conducted from 9 January 2019 to 8 February 2019. The Site has been divided into four (4) lots (Lots A through D) shown on Figure 1, with each lot having a separate California Land Reuse and Revitalization Act (CLRRA) agreement with the DTSC. The CLRRA agreements were executed on 9 August 2018. The total acreage of the Site consists of approximately 75 acres.

The proposed development for the Site will consist of both business park parcels and the open space and recreational areas. Development will be focused in the area on the western portion of the Site (Lot A) where the former mine buildings and administration offices were located. Lot A will remain developed and will include a parking lot, visitors center, museum/interpretive center, and other paved features.

Lot B may be redeveloped with a potential range of uses, such as a recreational park with fenced-off trails and viewpoints. Under that scenario, a pedestrian hiking/biking trail, including rest areas and benches, would be developed to traverse the western portion of Lot B and extend along the southern and eastern portion of Lot B within the Site. The trail would be fenced off and have placards along it to restrict access to the trails and viewpoints. Alternatively, Lot B may be retained as an open space/conservation area, which would be secured to restrict public access. Lots C and D will not be part of the recreational park development. Lot C will remain undeveloped land and Lot D may potentially be used for limited commercial/industrial purposes in the future.

The investigation included the excavation and soil sampling of fifteen (15) shallow test pits for composite sampling, seventeen (17) shallow test pits for discrete sampling, nine (9) deep excavations, two (2) samples of cementitious coatings, six (6) hand auger soil borings, the installation of two dual-nested soil vapor probes, and the collection of soil gas samples. A total of 146 soil samples were collected. The soil samples were collected from the trenches and soil borings and analyzed for one or more of the following: total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs), Title 22 metals, polychlorinated biphenyls (PCBs), dioxins, and

hexavalent chromium (Cr^{VI}). The laboratory analytical reports are provided in Attachment A.

Soil vapor samples collected from two (2) soil vapor probe locations were analyzed for VOCs and TPH, and methane. The results indicated that VOCs, TPH, and methane were not detected above their respective reporting limits. Therefore, no further soil gas investigation is recommended.

The following constituents were not reported above their respective DTSC screening levels (SLs) and/or EPA regional screening levels (RSLs) in the soil samples analyzed: VOCs, SVOCs, PAHs, PCBs, and dioxins. Dioxins were reported below the DTSC Residential SL of 50 parts per trillion (ppt) in the four (4) samples collected and analyzed at the Site. No further investigation is recommended for the above compounds.

A total of twenty-seven (27) soil samples were collected and analyzed for TPH. The maximum TPH concentration reported was 118 milligrams per kilogram (mg/kg) within the motor oil to heavy fuel oil range (C_{28}-C_{33}). No further investigation is recommended for these compounds.

A total of 128 soil samples were collected and analyzed for Title 22 metals and Cr^{VI}. The results of the sampling is outlined below:

- Arsenic was reported above the DTSC SL site-wide (69 samples). Arsenic was reported at concentrations ranging from 4.4 mg/kg to 94 mg/kg, which is consistent with previous investigations on the northern portion of the former RCP. Published literature indicates that arsenic is a metal commonly measured in soils throughout California.

- Thallium was reported above the EPA Industrial RSL of 1.2 mg/kg in three samples. These samples were collected from an area of white cementitious material. The other 125 samples analyzed for thallium were below the RSL of 1.2 mg/kg. This material is visually distinguishable and will be managed during the implementation of the Soil Management Plan, if needed. Based on this information, no further investigation is recommended for thallium.

- Cr^{VI} was reported above the EPA Industrial RSL of 6.3 mg/kg in one sample. This sample was collected from the white cementitious material. This material is visually distinguishable and will be managed during the implementation of the Soil Management Plan, if needed. The other 127 samples analyzed for Cr^{VI} were below the RSL of 6.3 mg/kg.

DRAFT

Based on this information, no further investigation is recommended for Cr^{VI}.

- Mercury was detected in four samples above the DTSC commercial/industrial standards of RSL 4.4 mg/kg. The mercury concentrations ranged from 8.0 mg/kg to 30 mg/kg. Mercury was initially identified as a COPC through comparison to elemental mercury (Hg[0]) screening levels; however the most prevalent valence states for mercury in soil are Hg(1) and Hg(2). Mercury can exist in either the monovalent or divalent forms as inorganic compounds, such as mercuric chloride. Consequently, maximum total mercury concentrations were compared to the mercuric chloride residential RSL (23 mg/kg) and mercury was eliminated as a COPC in Lots B and D. The sample locations are in Lot D. The mercury will be further addressed in the Response Plan and Soil Management Plan.

In accordance with preliminary discussion regarding the summary of findings with DTSC, the proposed mitigation measures described in the remedial summary overview are adequate to address the potential COCs at the site.

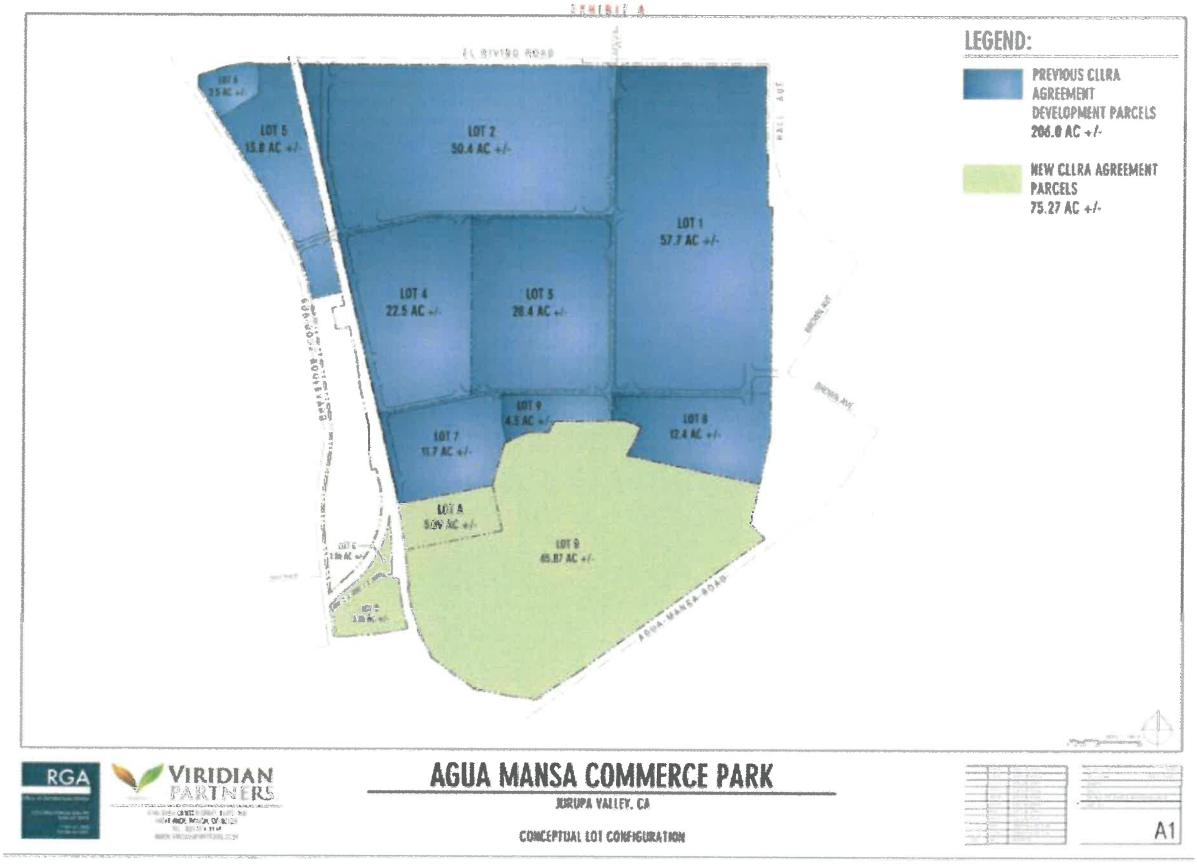
DRAFT

Figure 1

CLRRA Lot Map

DRAFT

EXHIBIT A
Site Map



ATTACHMENT A

Laboratory Analytical Report

DRAFT

Performance Analytical Laboratories, Inc.

ELAP 2960

January 28, 2019

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : DTSC Riverside

Work Order: P901016

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 1/16/2019. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 71

Qualifiers and Definitions 89

Chain of Custody PDFs 90

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P901016-01	OS-9.0.5'		Solid	01/14/2019	01/16/2019
P901016-02	OS-9-2'		Solid	01/14/2019	01/16/2019
P901016-03	OS-9-5'		Solid	01/14/2019	01/16/2019
P901016-04	OS-9-10'		Solid	01/14/2019	01/16/2019
P901016-05	OS-10-.05'		Solid	01/14/2019	01/16/2019
P901016-06	OS-10-2'		Solid	01/14/2019	01/16/2019
P901016-07	OS-10-5'		Solid	01/14/2019	01/16/2019
P901016-08	OS-10-10'		Solid	01/14/2019	01/16/2019
P901016-09	OS-6-0.5'		Solid	01/14/2019	01/16/2019
P901016-10	OS-6-2'		Solid	01/14/2019	01/16/2019
P901016-11	OS-6-5'		Solid	01/14/2019	01/16/2019
P901016-12	OS-6-10'		Solid	01/14/2019	01/16/2019
P901016-13	OS-5-0.5'		Solid	01/14/2019	01/16/2019
P901016-14	OS-5-1'		Solid	01/14/2019	01/16/2019
P901016-15	OS-5-2'		Solid	01/14/2019	01/16/2019
P901016-16	OS-5-5'		Solid	01/14/2019	01/16/2019
P901016-17	OS-7-0.5'		Solid	01/14/2019	01/16/2019
P901016-18	OS-7-1'		Solid	01/14/2019	01/16/2019
P901016-19	OS-7-2'		Solid	01/14/2019	01/16/2019
P901016-20	OS-7-5'		Solid	01/14/2019	01/16/2019
P901016-21	OS-7-10'		Solid	01/14/2019	01/16/2019
P901016-22	OS-7-13'		Solid	01/14/2019	01/16/2019
P901016-23	OS-4-0.5'		Solid	01/14/2019	01/16/2019
P901016-24	OS-4-1'		Solid	01/14/2019	01/16/2019
P901016-25	OS-4-2'		Solid	01/14/2019	01/16/2019
P901016-26	BP-2		Solid	01/14/2019	01/16/2019
P901016-27	OS-12-0.5'		Solid	01/14/2019	01/16/2019
P901016-28	OS-12-2'		Solid	01/14/2019	01/16/2019
P901016-29	OS-12-5'		Solid	01/14/2019	01/16/2019
P901016-30	OS-12-10'		Solid	01/14/2019	01/16/2019
P901016-31	OS-12-15'		Solid	01/14/2019	01/16/2019
P901016-32	BP-4		Solid	01/14/2019	01/16/2019
P901016-33	BP-3		Solid	01/14/2019	01/16/2019
P901016-34	BP-5		Solid	01/14/2019	01/16/2019
P901016-35	BP-6		Solid	01/14/2019	01/16/2019
P901016-36	BP-7		Solid	01/14/2019	01/16/2019

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-9.0.5' **P901016-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	**1200**	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	**0.84**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**9.1**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**1300**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	**1.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**28**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**7.5**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**45**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**99**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	**2.0**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**17**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**90**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-9-2' **P901016-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	**0.32**	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**3.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**110**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	**0.61**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**13**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**6.5**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**51**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**19**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	**0.37**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**5.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**32**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**92**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-9-5' **P901016-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**5.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**48**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	**0.33**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	**0.39**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**25**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**13**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**25**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**19**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**14**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**72**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**79**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-9-10' **P901016-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**1.5**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**460**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**22**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**12**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**18**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**1.7**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**8.4**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	**0.30**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**71**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**52**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-10-.05' **P901016-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	**0.26**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**20**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**110**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	**2.0**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**18**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**5.7**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**22**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**62**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	**0.54**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**15**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**33**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**90**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-10-2' **P901016-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	**0.33**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**7.9**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**56**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	**0.31**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	**1.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**21**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**8.9**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**20**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**71**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	**0.48**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**11**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**52**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**140**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-10-5' **P901016-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/21/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**4.0**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**14**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**23**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**12**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**6.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**8.1**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	**0.44**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**7.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**65**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**62**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-10-10' **P901016-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**4.0**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**16**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	**0.27**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**19**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**9.6**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**4.9**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**5.5**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	**0.32**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**6.1**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**54**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**51**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-6-0.5' **P901016-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	**0.17**	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**4.1**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**76**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**18**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**9.6**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**17**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**15**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**8.1**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**46**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**52**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-6-2' **P901016-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**1.7**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**14**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	**0.30**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**21**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**13**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**11**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**10**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**7.5**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**63**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**65**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-6-5' **P901016-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	**0.16**	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**1.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**29**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	**0.32**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**23**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**12**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**13**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**11**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**8.1**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**55**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**63**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-6-10' **P901016-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**2.4**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**32**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	**0.36**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**38**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**17**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**29**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**14**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	**0.25**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**12**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**81**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**86**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-0.5' **P901016-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**1.6**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**27**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**15**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**8.0**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**7.0**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**6.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**5.4**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**34**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**42**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-1' **P901016-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
8270CM_PAH_SIM (Batch ID: QC1210263)							
1-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benz(a)anthracene	**11**	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Pyrene	**11**	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	54%			30-120	01/22/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	74%			27-125	01/22/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	66%			33-155	01/22/2019	EPA 8270CM	
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018)							
C7-C8	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C28-C33	**20.0**	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-1' (Continued) **P901016-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018) (Continued)							
C34-C40	**13.9**	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	108%			60-140	01/18/2019	EPA 8015B (M)	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-1' (Continued) **P901016-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Aniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-1' (Continued) **P901016-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Phenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	75%			34-143	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	69%			41-125	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	71%			13-153	01/21/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	73%			27-125	01/21/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	75%			10-110	01/21/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	80%			33-155	01/21/2019	EPA 8270C	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017)							
Acetone	**38**	µg/Kg	1	18	01/16/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	46	01/16/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.6	01/16/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	18	01/16/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.6	01/16/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.6	01/16/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.6	01/16/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-1' (Continued) **P901016-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)							
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	4.6	01/16/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.6	01/16/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	4.6	01/16/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.6	01/16/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.6	01/16/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	18	01/16/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	4.6	01/16/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	18	01/16/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	9.2	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-1' (Continued) **P901016-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)							
Propionitrile	ND	µg/Kg	1	18	01/16/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	23	01/16/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	18	01/16/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.92	01/16/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.8	01/16/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.8	01/16/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	103%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	95.7%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	109%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	97.5%			60-140	01/16/2019	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-2' **P901016-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**1.2**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**5.7**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**19**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**9.5**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**2.0**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**15**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**6.0**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**43**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**69**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-5' **P901016-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
8270CM_PAH_SIM (Batch ID: QC1210263)							
1-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	51%			30-120	01/22/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	68%			27-125	01/22/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	64%			33-155	01/22/2019	EPA 8270CM	
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018)							
C7-C8	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-5' (Continued) **P901016-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018) (Continued)							
Surrogate: n-Octacosane (c28)	105%			60-140	01/18/2019	EPA 8015B (M)	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**1.7**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**21**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	**0.28**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	**0.34**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**20**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**11**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**10**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**12**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	**0.47**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**7.7**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**53**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**96**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-5' (Continued) **P901016-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
2,4-Dinitrophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Aniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-5' (Continued) **P901016-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Butylbenzyl Phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	**250**	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Phenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	71%			34-143	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	64%			41-125	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	66%			13-153	01/21/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	71%			27-125	01/21/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	71%			10-110	01/21/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	78%			33-155	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-5' (Continued) **P901016-16 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Acetone	**26**	µg/Kg	1	17	01/16/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	42	01/16/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.2	01/16/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	01/16/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.2	01/16/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.2	01/16/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.2	01/16/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	4.2	01/16/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-5' (Continued) **P901016-16 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,2-Dichloropropane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.2	01/16/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	4.2	01/16/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.2	01/16/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.2	01/16/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	17	01/16/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	4.2	01/16/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	01/16/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	8.5	01/16/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	17	01/16/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	21	01/16/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	17	01/16/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-5' (Continued) **P901016-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)							
Trichloroethene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.85	01/16/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.7	01/16/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.5	01/16/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	105%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	98.3%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	114%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	99.3%			60-140	01/16/2019	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-0.5' **P901016-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**2.2**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**52**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	**0.25**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**17**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**9.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**12**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**8.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**6.4**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**52**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**52**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-1' **P901016-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
8270CM_PAH_SIM (Batch ID: QC1210263)							
1-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	55%			30-120	01/22/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	73%			27-125	01/22/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	64%			33-155	01/22/2019	EPA 8270CM	
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018)							
C7-C8	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-1' (Continued) **P901016-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018) (Continued)							
Surrogate: n-Octacosane (c28)	89.5%			60-140	01/18/2019	EPA 8015B (M)	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Aniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-1' (Continued) **P901016-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Azobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-1' (Continued) **P901016-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Phenanthrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Phenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	73%			34-143	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	67%			41-125	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	69%			13-153	01/21/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	71%			27-125	01/21/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	72%			10-110	01/21/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	77%			33-155	01/21/2019	EPA 8270C	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017)							
Acetone	**33**	µg/Kg	1	19	01/16/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	48	01/16/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	19	01/16/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-1' (Continued) **P901016-18 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	19	01/16/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	19	01/16/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	9.5	01/16/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	19	01/16/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-1' (Continued) **P901016-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	24	01/16/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	19	01/16/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.95	01/16/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.9	01/16/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.9	01/16/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	88.4%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	93.2%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	103%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	97.1%			60-140	01/16/2019	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-2' **P901016-19 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**5.0**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**32**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	**0.52**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	**0.47**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**27**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**12**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**14**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**7.7**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**8.4**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**69**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**59**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-5' **P901016-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
8270CM_PAH_SIM (Batch ID: QC1210263)							
1-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	46%			30-120	01/22/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	60%			27-125	01/22/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	63%			33-155	01/22/2019	EPA 8270CM	
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018)							
C7-C8	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-5' (Continued) **P901016-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018) (Continued)							
Surrogate: n-Octacosane (c28)	106%			60-140	01/18/2019	EPA 8015B (M)	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**1.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**340**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**27**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**13**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**19**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**1.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**9.2**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	**0.39**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**69**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**60**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-5' (Continued) **P901016-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
2,4-Dinitrophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Aniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-5' (Continued) **P901016-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Butylbenzyl Phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Phenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	63%			34-143	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	56%			41-125	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	57%			13-153	01/21/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	58%			27-125	01/21/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	61%			10-110	01/21/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	71%			33-155	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-5' (Continued) **P901016-20 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Acetone	**42**	µg/Kg	1	19	01/16/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	48	01/16/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	19	01/16/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-5' (Continued) **P901016-20 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,2-Dichloropropane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	19	01/16/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	4.8	01/16/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	19	01/16/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	9.6	01/16/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	19	01/16/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	24	01/16/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	19	01/16/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-5' (Continued) **P901016-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)							
Trichloroethene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.96	01/16/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.9	01/16/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.9	01/16/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	103%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	98.2%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	109%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	98.6%			60-140	01/16/2019	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-10' **P901016-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
8270CM_PAH_SIM (Batch ID: QC1210263)							
1-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Fluoranthene	**21**	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Pyrene	**14**	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	41%			30-120	01/22/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	52%			27-125	01/22/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	63%			33-155	01/22/2019	EPA 8270CM	
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018)							
C7-C8	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-10' (Continued) **P901016-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018) (Continued)							
Surrogate: n-Octacosane (c28)	110%			60-140	01/18/2019	EPA 8015B (M)	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**1.5**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**200**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**26**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**11**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**19**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**1.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**8.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	**0.29**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**79**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**55**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-10' (Continued) **P901016-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
2,4-Dinitrophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Aniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-10' (Continued) **P901016-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Butylbenzyl Phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Phenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	62%			34-143	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	52%			41-125	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	50%			13-153	01/21/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	52%			27-125	01/21/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	55%			10-110	01/21/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	75%			33-155	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-10' (Continued) **P901016-21 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Acetone	**31**	µg/Kg	1	21	01/16/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	52	01/16/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	5.2	01/16/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	21	01/16/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	5.2	01/16/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	5.2	01/16/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	5.2	01/16/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.2	01/16/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-10' (Continued) **P901016-21 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,2-Dichloropropane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	5.2	01/16/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	5.2	01/16/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	5.2	01/16/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	5.2	01/16/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	21	01/16/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	5.2	01/16/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	21	01/16/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	10	01/16/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	21	01/16/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	26	01/16/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	21	01/16/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-10' (Continued) **P901016-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)							
Trichloroethene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.0	01/16/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.1	01/16/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.1	01/16/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	87.5%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	95.7%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	96.6%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	97.2%			60-140	01/16/2019	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-13' **P901016-22 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018)							
C7-C8	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C28-C33	**15.8**	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	93.7%			60-140	01/18/2019	EPA 8015B (M)	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017)							
Acetone	**61**	µg/Kg	1	33	01/16/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	82	01/16/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	8.2	01/16/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	33	01/16/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	8.2	01/16/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	8.2	01/16/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	8.2	01/16/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-13' (Continued) **P901016-22 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
4-Chlorotoluene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	8.2	01/16/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	8.2	01/16/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	8.2	01/16/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	8.2	01/16/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	8.2	01/16/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	33	01/16/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	8.2	01/16/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	33	01/16/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-7-13' (Continued) **P901016-22 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)							
Naphthalene	ND	µg/Kg	1	16	01/16/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	33	01/16/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	41	01/16/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	33	01/16/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.6	01/16/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	3.3	01/16/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	4.9	01/16/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	105%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	99.5%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	119%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	100%			60-140	01/16/2019	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-4-0.5' **P901016-23 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011709)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011710)							
Antimony	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**2.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**260**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**16**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**8.1**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**6.0**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**3.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**5.9**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	**0.32**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**67**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**43**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-4-1' **P901016-24 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PCBs_Subcontract (Batch ID: 9011703)							
PCB-1016	ND	ug/kg	1	10	01/17/2019	EPA 8082	
PCB-1221	ND	ug/kg	1	10	01/17/2019	EPA 8082	
PCB-1232	ND	ug/kg	1	10	01/17/2019	EPA 8082	
PCB-1242	ND	ug/kg	1	10	01/17/2019	EPA 8082	
PCB-1248	ND	ug/kg	1	10	01/17/2019	EPA 8082	
PCB-1254	ND	ug/kg	1	10	01/17/2019	EPA 8082	
PCB-1260	ND	ug/kg	1	10	01/17/2019	EPA 8082	
Surrogate: Tetrachloro-meta-xylene	106%			35-140	01/17/2019	EPA 8082	
Surrogate: Decachlorobiphenyl	113%			35-140	01/17/2019	EPA 8082	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-4-2' **P901016-25 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011712)							
Mercury	ND	mg/kg	1	0.10	01/21/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011713)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**10**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**1.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**0.54**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**0.32**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**0.71**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**32**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**6.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: BP-2 **P901016-26 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011712)							
Mercury	ND	mg/kg	1	0.10	01/21/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011713)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**0.67**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**150**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**19**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**5.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**2.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**1.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**3.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**34**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-12-0.5' **P901016-27 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011632)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011712)							
Mercury	**0.16**	mg/kg	1	0.10	01/21/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011713)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**6.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**150**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.43**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.64**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**16**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**9.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**23**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.56**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**16**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**35**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**100**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-12-2' **P901016-28 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011702)							
Hexavalent Chromium	ND	ug/kg	1	200	01/21/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011712)							
Mercury	**0.35**	mg/kg	1	0.10	01/21/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011713)							
Antimony	**0.35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**5.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**100**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.78**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**29**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**8.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**40**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.39**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**66**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**190**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-12-5' **P901016-29 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018)							
C7-C8	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	102%			60-140	01/18/2019	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: 9011702)							
Hexavalent Chromium	ND	ug/kg	1	200	01/21/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011712)							
Mercury	**0.34**	mg/kg	1	0.10	01/21/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011713)							
Antimony	**0.53**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**41**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**300**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.39**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**17**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**46**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**1.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**31**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-12-5' (Continued) **P901016-29 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals by ICP-MS_Subcontract (Batch ID: 9011713) (Continued)							
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**46**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**140**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-12-10' **P901016-30 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018)							
C7-C8	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C25-C27	**11.0**	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C28-C33	**38.6**	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C34-C40	**21.6**	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	102%			60-140	01/18/2019	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: 9011702)							
Hexavalent Chromium	ND	ug/kg	1	200	01/21/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011712)							
Mercury	**0.29**	mg/kg	1	0.10	01/21/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011713)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**24**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**230**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.56**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**20**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**1.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-12-10' (Continued) **P901016-30 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals by ICP-MS_Subcontract (Batch ID: 9011713) (Continued)							
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.43**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**48**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**59**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Sample: OS-12-15' **P901016-31 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018)							
C7-C8	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	97.6%			60-140	01/18/2019	EPA 8015B (M)	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: BP-4 **P901016-32 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011702)							
Hexavalent Chromium	ND	ug/kg	1	200	01/21/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011712)							
Mercury	**0.12**	mg/kg	1	0.10	01/21/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011713)							
Antimony	**0.28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**210**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.70**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**15**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.76**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.38**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**25**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**81**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: BP-3 **P901016-33 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011702)							
Hexavalent Chromium	ND	ug/kg	1	200	01/21/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011712)							
Mercury	ND	mg/kg	1	0.10	01/21/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011713)							
Antimony	**0.40**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**6.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**120**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.91**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**22**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**5.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**32**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**41**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.97**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**9.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**35**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**77**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: BP-5 **P901016-34 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011702)							
Hexavalent Chromium	ND	ug/kg	1	200	01/21/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011712)							
Mercury	ND	mg/kg	1	0.10	01/21/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011713)							
Antimony	**0.97**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**8.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**110**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**2.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**20**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**49**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**67**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**1.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**16**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.43**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**43**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**500**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: BP-6 **P901016-35 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011702)							
Hexavalent Chromium	ND	ug/kg	1	200	01/21/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011712)							
Mercury	**0.59**	mg/kg	1	0.10	01/21/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011713)							
Antimony	**0.48**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**6.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**110**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.61**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**18**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**9.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**23**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**42**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.51**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**57**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**74**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: BP-7 **P901016-36 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011702)							
Hexavalent Chromium	ND	ug/kg	1	200	01/21/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011712)							
Mercury	ND	mg/kg	1	0.10	01/21/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011713)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**1.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**230**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**24**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**9.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**2.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**1.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.36**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**56**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**49**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

8270CM_PAH_SIM

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210263										
LCS (QC1210263LCS1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Pyrene	48		10	ug/Kg	50	NA	96	68-134		
Phenanthrene	46		10	ug/Kg	50	NA	92	65-132		
Benzo(b)fluoranthene	50		10	ug/Kg	50	NA	100	63-147		
1-Methylnaphthalene	37		10	ug/Kg	50	NA	74	38-130		
2-Methylnaphthalene	40		10	ug/Kg	50	NA	80	59-130		
Acenaphthene	38		10	ug/Kg	50	NA	76	58-130		
Acenaphthylene	38		10	ug/Kg	50	NA	76	52-130		
Anthracene	35		10	ug/Kg	50	NA	70	55-136		
Benzo(a)pyrene	51		10	ug/Kg	50	NA	102	36-168		
Benzo(g,h,i)perylene	37		10	ug/Kg	50	NA	74	54-135		
Benzo(k)fluoranthene	45		10	ug/Kg	50	NA	90	64-142		
Chrysene	38		10	ug/Kg	50	NA	76	66-130		
Dibenz(a,h)anthracene	39		10	ug/Kg	50	NA	78	52-144		
Fluoranthene	54		10	ug/Kg	50	NA	108	68-139		
Fluorene	42		10	ug/Kg	50	NA	84	63-130		
Indeno(1,2,3-cd)pyrene	45		10	ug/Kg	50	NA	90	58-144		
Naphthalene	38		10	ug/Kg	50	NA	76	50-130		
Benz(a)anthracene	48		10	ug/Kg	50	NA	96	61-147		
Surrogate: Nitrobenzene-d5 (SUR)	33.601			ug/Kg	50	NA	67	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	33.687			ug/Kg	50	NA	67	30-120		
Surrogate: p-Terphenyl (SUR)	45.212			ug/Kg	50	NA	90	33-155		
Method Blank (QC1210263MB1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Acenaphthene	ND		10	ug/Kg		NA		-		
Acenaphthylene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
Benzo(a)pyrene	12	B	10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
Chrysene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Fluoranthene	12	B	10	ug/Kg		NA		-		
Fluorene	ND		10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Pyrene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Phenanthrene	16	B	10	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	11	B	10	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

8270CM_PAH_SIM (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210263 (Continued)										
MS (QC1210263MS1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
1-Methylnaphthalene	28		10	ug/Kg	50	ND	56	25-130		
Benzo(a)pyrene	53		10	ug/Kg	50	16	74	18-173		
2-Methylnaphthalene	30		10	ug/Kg	50	ND	60	32-133		
Acenaphthene	29		10	ug/Kg	50	ND	58	28-134		
Acenaphthylene	29		10	ug/Kg	50	ND	58	14-157		
Benz(a)anthracene	48		10	ug/Kg	50	11	74	26-174		
Pyrene	45		10	ug/Kg	50	11	68	26-153		
Benzo(b)fluoranthene	52		10	ug/Kg	50	9.2	86	36-164		
Benzo(g,h,i)perylene	36		10	ug/Kg	50	4.1	64	36-130		
Benzo(k)fluoranthene	44		10	ug/Kg	50	9.8	68	36-161		
Phenanthrene	42		10	ug/Kg	50	6.4	71	29-147		
Anthracene	40		10	ug/Kg	50	ND	80	24-156		
Chrysene	38		10	ug/Kg	50	7.9	60	40-139		
Naphthalene	28		10	ug/Kg	50	ND	56	33-130		
Indeno(1,2,3-cd)pyrene	45		10	ug/Kg	50	14	62	26-154		
Fluorene	34		10	ug/Kg	50	ND	68	27-140		
Fluoranthene	51		10	ug/Kg	50	14	74	28-160		
Dibenz(a,h)anthracene	37		10	ug/Kg	50	ND	74	38-132		
Surrogate: 2-Fluorobiphenyl (SUR)	25.403			ug/Kg	50	NA	51	30-120		
Surrogate: p-Terphenyl (SUR)	40.842			ug/Kg	50	NA	82	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	27.272			ug/Kg	50	NA	55	27-125		
MSD (QC1210263MSD1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
Pyrene	49		10	ug/Kg	50	11	76	26-153	8.5	35
Chrysene	42		10	ug/Kg	50	7.9	68	40-139	10	35
2-Methylnaphthalene	40		10	ug/Kg	50	ND	80	32-133	28.6	35
Acenaphthylene	37		10	ug/Kg	50	ND	74	14-157	24.2	35
Anthracene	43		10	ug/Kg	50	ND	86	24-156	7.2	35
Benz(a)anthracene	51		10	ug/Kg	50	11	80	26-174	6.1	35
Benzo(a)pyrene	57		10	ug/Kg	50	16	82	18-173	7.3	35
Benzo(b)fluoranthene	56		10	ug/Kg	50	9.2	94	36-164	7.4	35
1-Methylnaphthalene	37		10	ug/Kg	50	ND	74	25-130	27.7	35
Benzo(k)fluoranthene	47		10	ug/Kg	50	9.8	74	36-161	6.6	35
Dibenz(a,h)anthracene	39		10	ug/Kg	50	ND	78	38-132	5.3	35
Fluoranthene	55		10	ug/Kg	50	14	82	28-160	7.5	35
Fluorene	40		10	ug/Kg	50	ND	80	27-140	16.2	35
Indeno(1,2,3-cd)pyrene	48		10	ug/Kg	50	14	68	26-154	6.5	35
Naphthalene	37		10	ug/Kg	50	ND	74	33-130	27.7	35
Phenanthrene	49		10	ug/Kg	50	6.4	85	29-147	15.4	35
Benzo(g,h,i)perylene	38		10	ug/Kg	50	4.1	68	36-130	5.4	35
Acenaphthene	37		10	ug/Kg	50	ND	74	28-134	24.2	35
Surrogate: 2-Fluorobiphenyl (SUR)	32.523			ug/Kg	50	NA	65	30-120		
Surrogate: Nitrobenzene-d5 (SUR)	35.984			ug/Kg	50	NA	72	27-125		
Surrogate: p-Terphenyl (SUR)	43.647			ug/Kg	50	NA	87	33-155		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

8270CM_PAH_SIM (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: QC1210263 (Continued)

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0018										
Blank (B9A0018-BLK1)				Prepared: 01/16/2019 Analyzed: 01/17/2019						
C7-C8	ND		10.0	mg/kg						
C9-C10	ND		10.0	mg/kg						
C11-C12	ND		10.0	mg/kg						
C13-C14	ND		10.0	mg/kg						
C15-C16	ND		10.0	mg/kg						
C17-C18	ND		10.0	mg/kg						
C19-C20	ND		10.0	mg/kg						
C21-C22	ND		10.0	mg/kg						
C23-C24	ND		10.0	mg/kg						
C25-C27	ND		10.0	mg/kg						
C28-C33	ND		10.0	mg/kg						
C34-C40	ND		10.0	mg/kg						
Surrogate: n-Octacosane (c28)	2.15			mg/kg	2.04		105	60-140		
LCS (B9A0018-BS1)				Prepared: 01/16/2019 Analyzed: 01/17/2019						
Diesel	46.9		10.0	mg/kg	50.0		93.7	70-130		
Surrogate: n-Octacosane (c28)	2.25			mg/kg	2.04		110	60-140		
LCS Dup (B9A0018-BSD1)				Prepared: 01/16/2019 Analyzed: 01/17/2019						
Diesel	45.7		10.0	mg/kg	50.0		91.4	70-130	2.46	20
Surrogate: n-Octacosane (c28)	2.08			mg/kg	2.04		102	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9011632										
Blank (9011632-BLK1)				Prepared: 01/16/2019 Analyzed: 01/17/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9011632-BS1)				Prepared: 01/16/2019 Analyzed: 01/17/2019						
Hexavalent Chromium	10300		200	ug/kg	10000		103	80-120		
Matrix Spike (9011632-MS1)		**Source: P901016-01**		Prepared: 01/16/2019 Analyzed: 01/17/2019						
Hexavalent Chromium	10900		200	ug/kg	9800	1190	99.4	75-125		
Matrix Spike Dup (9011632-MSD1)		**Source: P901016-01**		Prepared: 01/16/2019 Analyzed: 01/17/2019						
Hexavalent Chromium	10300		200	ug/kg	10000	1190	91.2	75-125	5.85	20
Batch: 9011702										
Blank (9011702-BLK1)				Prepared: 01/17/2019 Analyzed: 01/21/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9011702-BS1)				Prepared: 01/17/2019 Analyzed: 01/21/2019						
Hexavalent Chromium	10700		200	ug/kg	10000		107	80-120		
Matrix Spike (9011702-MS1)		**Source: P901016-28**		Prepared: 01/17/2019 Analyzed: 01/21/2019						
Hexavalent Chromium	10900		200	ug/kg	10300	69.9	106	75-125		
Matrix Spike Dup (9011702-MSD1)		**Source: P901016-28**		Prepared: 01/17/2019 Analyzed: 01/21/2019						
Hexavalent Chromium	10700		200	ug/kg	9880	69.9	107	75-125	2.40	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9011709										
Blank (9011709-BLK1)				Prepared & Analyzed: 01/17/2019						
Mercury	ND		0.10	mg/kg						
LCS (9011709-BS1)				Prepared & Analyzed: 01/17/2019						
Mercury	0.366		0.10	mg/kg	0.417		87.9	80-120		
Matrix Spike (9011709-MS1)		**Source: P901016-01**		Prepared & Analyzed: 01/17/2019						
Mercury	0.642	QM-07	0.10	mg/kg	0.391	0.0328	156	75-125		
Matrix Spike Dup (9011709-MSD1)		**Source: P901016-01**		Prepared & Analyzed: 01/17/2019						
Mercury	0.433	QM-07	0.10	mg/kg	0.410	0.0328	97.7	75-125	38.8	20
Batch: 9011712										
Blank (9011712-BLK1)				Prepared: 01/17/2019 Analyzed: 01/21/2019						
Mercury	ND		0.10	mg/kg						
LCS (9011712-BS1)				Prepared: 01/17/2019 Analyzed: 01/21/2019						
Mercury	0.330		0.10	mg/kg	0.397		83.2	80-120		
Matrix Spike (9011712-MS1)		**Source: P901016-25**		Prepared: 01/17/2019 Analyzed: 01/21/2019						
Mercury	0.333		0.10	mg/kg	0.397	ND	83.8	75-125		
Matrix Spike Dup (9011712-MSD1)		**Source: P901016-25**		Prepared: 01/17/2019 Analyzed: 01/21/2019						
Mercury	0.340		0.10	mg/kg	0.410	ND	83.0	75-125	2.28	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals by ICP-MS_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9011710										
Blank (9011710-BLK1)				Prepared: 01/17/2019 Analyzed: 01/24/2019						
Antimony	ND		0.25	mg/kg						
Arsenic	ND		0.25	mg/kg						
Barium	ND		0.25	mg/kg						
Beryllium	ND		0.25	mg/kg						
Cadmium	ND		0.25	mg/kg						
Chromium	1.31	QB-01	0.25	mg/kg						
Cobalt	ND		0.25	mg/kg						
Copper	ND		0.25	mg/kg						
Lead	ND		0.25	mg/kg						
Mercury	ND		0.025	mg/kg						
Molybdenum	ND		0.25	mg/kg						
Nickel	ND		0.25	mg/kg						
Selenium	ND		1.2	mg/kg						
Silver	ND		0.25	mg/kg						
Thallium	ND		0.25	mg/kg						
Vanadium	ND		0.25	mg/kg						
Zinc	ND		0.25	mg/kg						
LCS (9011710-BS1)				Prepared: 01/17/2019 Analyzed: 01/24/2019						
Arsenic	95.9		0.25	mg/kg	100		95.9	80-120		
Barium	97.3		0.25	mg/kg	100		97.3	80-120		
Cadmium	96.2		0.25	mg/kg	100		96.2	80-120		
Chromium	98.4		0.25	mg/kg	100		98.4	80-120		
Lead	98.4		0.25	mg/kg	100		98.4	80-120		
Matrix Spike (9011710-MS1)		**Source: P901016-01**		Prepared: 01/17/2019 Analyzed: 01/24/2019						
Arsenic	123		0.25	mg/kg	97.1	9.07	117	75-125		
Barium	1390		0.25	mg/kg	97.1	1320	78.2	75-125		
Cadmium	108		0.25	mg/kg	97.1	1.32	110	75-125		
Chromium	141		0.25	mg/kg	97.1	28.4	116	75-125		
Lead	207		0.25	mg/kg	97.1	99.4	111	75-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals by ICP-MS_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9011710 (Continued)										
Matrix Spike Dup (9011710-MSD1)		**Source: P901016-01**		Prepared: 01/17/2019 Analyzed: 01/24/2019						
Arsenic	126		0.25	mg/kg	100	9.07	117	75-125	2.60	20
Barium	1870	QR-04	0.25	mg/kg	100	1320	553	75-125	29.2	20
Cadmium	111		0.25	mg/kg	100	1.32	110	75-125	2.20	20
Chromium	154		0.25	mg/kg	100	28.4	125	75-125	8.75	20
Lead	236	QR-04	0.25	mg/kg	100	99.4	136	75-125	13.0	20
Batch: 9011713										
Blank (9011713-BLK1)				Prepared: 01/17/2019 Analyzed: 01/23/2019						
Antimony	ND		0.25	mg/kg						
Arsenic	ND		0.25	mg/kg						
Barium	ND		0.25	mg/kg						
Beryllium	ND		0.25	mg/kg						
Cadmium	ND		0.25	mg/kg						
Chromium	ND		0.25	mg/kg						
Cobalt	ND		0.25	mg/kg						
Copper	ND		0.25	mg/kg						
Lead	ND		0.25	mg/kg						
Molybdenum	ND		0.25	mg/kg						
Nickel	ND		0.25	mg/kg						
Selenium	ND		1.2	mg/kg						
Silver	ND		0.25	mg/kg						
Thallium	ND		0.25	mg/kg						
Vanadium	ND		0.25	mg/kg						
Zinc	ND		0.25	mg/kg						
Duplicate (9011713-DUP1)		**Source: P901016-25**		Prepared: 01/17/2019 Analyzed: 01/24/2019						
Chromium	11.1		1.2	mg/kg		10.0			9.93	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals by ICP-MS_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9011713 (Continued)										
LCS (9011713-BS1)				Prepared: 01/17/2019 Analyzed: 01/23/2019						
Arsenic	110		0.25	mg/kg	100		110	80-120		
Barium	117		0.25	mg/kg	100		117	80-120		
Cadmium	115		0.25	mg/kg	100		115	80-120		
Chromium	97.6		0.25	mg/kg	100		97.6	80-120		
Lead	116		0.25	mg/kg	100		116	80-120		
Matrix Spike (9011713-MS1)		**Source: P901016-25**		Prepared: 01/17/2019 Analyzed: 01/23/2019						
Arsenic	92.1		0.25	mg/kg	96.2	0.183	95.6	75-125		
Barium	222	QM-PS	0.25	mg/kg	96.2	28.0	202	75-125		
Cadmium	92.5		0.25	mg/kg	96.2	0.0481	96.1	75-125		
Chromium	0.0546	QM-PS	0.25	mg/kg	96.2	10.0	0	75-125		
Lead	96.8		0.25	mg/kg	96.2	0.322	100	75-125		
Matrix Spike Dup (9011713-MSD1)		**Source: P901016-25**		Prepared: 01/17/2019 Analyzed: 01/23/2019						
Arsenic	84.5		0.25	mg/kg	98.0	0.183	86.0	75-125	8.56	20
Barium	271	QM-PS	0.25	mg/kg	98.0	28.0	248	75-125	19.9	20
Cadmium	87.2		0.25	mg/kg	98.0	0.0481	88.9	75-125	5.86	20
Chromium	0.0301	QM-PS	0.25	mg/kg	98.0	10.0	0	75-125	58.0	20
Lead	101		0.25	mg/kg	98.0	0.322	103	75-125	4.50	20
Post Spike (9011713-PS1)		**Source: P901016-25**		Prepared: 01/17/2019 Analyzed: 01/23/2019						
Barium	143			ug/kg	100	28.0	115	80-120		
Chromium	36.1	QM-PS		ug/kg	100	10.0	26.0	80-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

PCBs_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9011703										
Blank (9011703-BLK1)				Prepared & Analyzed: 01/17/2019						
PCB-1016	ND		10	ug/kg						
PCB-1221	ND		10	ug/kg						
PCB-1232	ND		10	ug/kg						
PCB-1242	ND		10	ug/kg						
PCB-1248	ND		10	ug/kg						
PCB-1254	ND		10	ug/kg						
PCB-1260	ND		10	ug/kg						
Surrogate: Tetrachloro-meta-xylene	11.5			ug/kg	10.1		114	35-140		
Surrogate: Decachlorobiphenyl	12.1			ug/kg	10.1		120	35-140		
LCS (9011703-BS1)				Prepared & Analyzed: 01/17/2019						
PCB-1016	77.5		10	ug/kg	101		76.7	40-130		
PCB-1260	88.6		10	ug/kg	101		87.8	40-130		
Surrogate: Tetrachloro-meta-xylene	11.3			ug/kg	10.1		112	35-140		
Surrogate: Decachlorobiphenyl	11.6			ug/kg	10.1		115	35-140		
Matrix Spike (9011703-MS1)		**Source: P901016-24**		Prepared & Analyzed: 01/17/2019						
PCB-1016	83.6		10	ug/kg	101	ND	82.7	40-130		
PCB-1260	88.7		10	ug/kg	101	ND	87.8	40-130		
Surrogate: Tetrachloro-meta-xylene	11.2			ug/kg	10.1		111	35-140		
Surrogate: Decachlorobiphenyl	11.5			ug/kg	10.1		114	35-140		
Matrix Spike Dup (9011703-MSD1)		**Source: P901016-24**		Prepared & Analyzed: 01/17/2019						
PCB-1016	101		10	ug/kg	101	ND	100	40-130	18.9	30
PCB-1260	93.4		10	ug/kg	101	ND	92.4	40-130	5.09	30
Surrogate: Tetrachloro-meta-xylene	11.1			ug/kg	10.1		110	35-140		
Surrogate: Decachlorobiphenyl	12.9			ug/kg	10.1		128	35-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260										
LCS (QC1210260LCS1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Chrysene	1500		250	ug/Kg	2000	NA	75	59-117		
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	NA	75	57-124		
Pyrene	1500		250	ug/Kg	2000	NA	75	63-119		
Phenol	1400		250	ug/Kg	2000	NA	70	51-111		
Pentachlorophenol	1300		1200	ug/Kg	2000	NA	65	41-103		
Benzo(b)fluoranthene	1700		250	ug/Kg	2000	NA	85	61-125		
Acenaphthene	1400		250	ug/Kg	2000	NA	70	53-112		
4-Nitrophenol	1700		250	ug/Kg	2000	NA	85	54-126		
4-Chloro-3-methylphenol	1600		250	ug/Kg	2000	NA	80	61-122		
3 and 4-Methylphenol (m and p-Cresol)	1600		400	ug/Kg	2000	NA	80	56-124		
2-Chlorophenol	1400		250	ug/Kg	2000	NA	70	48-114		
N-Nitrosodi-n-propylamine (NDPA)	1600		250	ug/Kg	2000	NA	80	54-110		
2,4-Dimethylphenol	1500		250	ug/Kg	2000	NA	75	50-112		
1,4-Dichlorobenzene	1200		250	ug/Kg	2000	NA	60	30-116		
1,2,4-Trichlorobenzene	1300		250	ug/Kg	2000	NA	65	43-111		
2,4,5-Trichlorophenol	1500		250	ug/Kg	2000	NA	75	57-125		
Surrogate: p-Terphenyl (SUR)	1585.422			ug/Kg	2000	NA	79	33-155		
Surrogate: Phenol-d5 (SUR)	1560.604			ug/Kg	2000	NA	78	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1481.625			ug/Kg	2000	NA	74	27-125		
Surrogate: 2-Fluorophenol (SUR)	1371.266			ug/Kg	2000	NA	69	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1457.652			ug/Kg	2000	NA	73	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1613.317			ug/Kg	2000	NA	81	34-143		
Method Blank (QC1210260MB1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Total Cresol	ND		400	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
Hexachloroethane	ND		250	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		
Naphthalene	ND		250	ug/Kg		NA		-		
Nitrobenzene	ND		1200	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
Phenanthrene	ND		250	ug/Kg		NA		-		
Phenol	ND		250	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		
3-Nitroaniline	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260 (Continued)										
Method Blank (QC1210260MB1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
Dibenzofuran	ND		250	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		
Fluorene	ND		250	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
Chrysene	ND		250	ug/Kg		NA		-		
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
4-Nitrophenol	ND		250	ug/Kg		NA		-		
Benz(a)anthracene	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260 (Continued)										
Method Blank (QC1210260MB1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Acenaphthene	ND		250	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
Acenaphthylene	ND		250	ug/Kg		NA		-		
Surrogate: p-Terphenyl (SUR)	1555.128			ug/Kg	2000	NA	78	33-155		
Surrogate: Phenol-d5 (SUR)	1570.777			ug/Kg	2000	NA	79	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1521.013			ug/Kg	2000	NA	76	27-125		
Surrogate: 2-Fluorophenol (SUR)	1450.847			ug/Kg	2000	NA	73	13-153		
Surrogate: 2,4,6-Tribromophenol (SUR)	1504.422			ug/Kg	2000	NA	75	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1429.486			ug/Kg	2000	NA	71	41-125		
MS (QC1210260MS1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
4-Nitrophenol	1600		250	ug/Kg	2000	ND	80	37-107		
4-Chloro-3-methylphenol	1500		250	ug/Kg	2000	ND	75	33-120		
3 and 4-Methylphenol (m and p-Cresol)	1400		400	ug/Kg	2000	ND	70	33-116		
2-Chlorophenol	1300		250	ug/Kg	2000	ND	65	42-102		
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	ND	75	48-109		
2,4-Dimethylphenol	1300		250	ug/Kg	2000	ND	65	37-105		
2,4,5-Trichlorophenol	1400		250	ug/Kg	2000	ND	70	44-108		
1,4-Dichlorobenzene	1000		250	ug/Kg	2000	ND	50	39-95		
1,2,4-Trichlorobenzene	1200		250	ug/Kg	2000	ND	60	35-93		
Chrysene	1400		250	ug/Kg	2000	ND	70	68-120		
Acenaphthene	1300		250	ug/Kg	2000	ND	65	57-99		
Phenol	1300		250	ug/Kg	2000	ND	65	46-116		
Pyrene	1500		250	ug/Kg	2000	ND	75	53-129		
N-Nitrosodi-n-propylamine (NDPA)	1400		250	ug/Kg	2000	ND	70	41-127		
Pentachlorophenol	1300		1200	ug/Kg	2000	ND	65	43-120		
Benzo(b)fluoranthene	1500		250	ug/Kg	2000	ND	75	59-126		
Surrogate: 2-Fluorophenol (SUR)	961.254			ug/Kg	2000	NA	48	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1051.419			ug/Kg	2000	NA	53	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1557.47			ug/Kg	2000	NA	78	34-143		
Surrogate: Phenol-d5 (SUR)	1182.169			ug/Kg	2000	NA	59	10-110		
Surrogate: p-Terphenyl (SUR)	1504.131			ug/Kg	2000	NA	75	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	988.5			ug/Kg	2000	NA	49	27-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260 (Continued)										
MSD (QC1210260MSD1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
4-Chloro-3-methylphenol	1200		250	ug/Kg	2000	ND	60	33-120	22.2	30
2-Chlorophenol	910	D	250	ug/Kg	2000	ND	46	42-102	35.3	30
2,4-Dinitrotoluene	1300		250	ug/Kg	2000	ND	65	48-109	14.3	30
2,4-Dimethylphenol	940	D	250	ug/Kg	2000	ND	47	37-105	32.1	30
2,4,5-Trichlorophenol	1200		250	ug/Kg	2000	ND	60	44-108	15.4	30
1,2,4-Trichlorobenzene	840	D	250	ug/Kg	2000	ND	42	35-93	35.3	30
3 and 4-Methylphenol (m and p-Cresol)	1100		400	ug/Kg	2000	ND	55	33-116	24	30
N-Nitrosodi-n-propylamine (NDPA)	1000	D	250	ug/Kg	2000	ND	50	41-127	33.3	30
1,4-Dichlorobenzene	760	M	250	ug/Kg	2000	ND	38	39-95	27.3	30
Pyrene	1300		250	ug/Kg	2000	ND	65	53-129	14.3	30
Pentachlorophenol	1100		1200	ug/Kg	2000	ND	55	43-120	16.7	30
Chrysene	1200	M	250	ug/Kg	2000	ND	60	68-120	15.4	30
Benzo(b)fluoranthene	1400		250	ug/Kg	2000	ND	70	59-126	6.9	30
Acenaphthene	1000	M	250	ug/Kg	2000	ND	50	57-99	26.1	30
4-Nitrophenol	1700		250	ug/Kg	2000	ND	85	37-107	6.1	30
Phenol	940	D	250	ug/Kg	2000	ND	47	46-116	32.1	30
Surrogate: 2-Fluorobiphenyl (SUR)	922.741			ug/Kg	2000	NA	46	41-125		
Surrogate: 2-Fluorophenol (SUR)	863.734			ug/Kg	2000	NA	43	13-153		
Surrogate: 2,4,6-Tribromophenol (SUR)	1376.049			ug/Kg	2000	NA	69	34-143		
Surrogate: p-Terphenyl (SUR)	1358.387			ug/Kg	2000	NA	68	33-155		
Surrogate: Phenol-d5 (SUR)	977.058			ug/Kg	2000	NA	49	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	926.104			ug/Kg	2000	NA	46	27-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0017										
Blank (B9A0017-BLK1)				Prepared & Analyzed: 01/16/2019						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		5.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0017 (Continued)										
Blank (B9A0017-BLK1)				Prepared & Analyzed: 01/16/2019						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		5.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		20	µg/Kg						
Methyl Methacrylate	ND		5.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		20	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	52			µg/Kg	50.0		104	60-140		
Surrogate: 4-Bromofluorobenzene	48			µg/Kg	50.0		95.8	60-140		
Surrogate: 1,2-Dichloroethane-d4	52			µg/Kg	50.0		105	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		97.8	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0017 (Continued)										
LCS (B9A0017-BS1)				Prepared & Analyzed: 01/16/2019						
Benzene	41		1.0	µg/Kg	40.0		102	70-130		
Bromobenzene	40		1.0	µg/Kg	40.0		101	70-130		
Bromodichloromethane	43		1.0	µg/Kg	40.0		107	70-130		
Bromoform	39		1.0	µg/Kg	40.0		98.3	70-130		
Chlorobenzene	41		1.0	µg/Kg	40.0		102	70-130		
Chloroethane	41		5.0	µg/Kg	40.0		101	70-130		
Chloroform	41		1.0	µg/Kg	40.0		102	70-130		
4-Chlorotoluene	42		1.0	µg/Kg	40.0		106	70-130		
Dibromomethane	42		1.0	µg/Kg	40.0		104	70-130		
1,2-Dichlorobenzene	40		1.0	µg/Kg	40.0		99.7	70-130		
1,1-Dichloroethene	43		1.0	µg/Kg	40.0		106	70-130		
1,2-Dichloropropane	41		1.0	µg/Kg	40.0		103	70-130		
2,2-Dichloropropane	43		1.0	µg/Kg	40.0		107	70-130		
1,1-Dichloropropene	42		1.0	µg/Kg	40.0		105	70-130		
Diethyl Ether	39		5.0	µg/Kg	40.0		97.4	70-130		
Diisopropyl Ether (DIPE)	41		1.0	µg/Kg	40.0		102	70-130		
Ethylbenzene	42		1.0	µg/Kg	40.0		106	70-130		
Hexachloro-1,3-Butadiene	42		1.0	µg/Kg	40.0		104	70-130		
Methylene Chloride	43		20	µg/Kg	40.0		108	70-130		
Methyl-t-Butyl Ether (MTBE)	39		1.0	µg/Kg	40.0		97.4	70-130		
Naphthalene	38		10	µg/Kg	40.0		95.1	70-130		
Styrene	43		1.0	µg/Kg	40.0		108	70-130		
tert-Butylbenzene	44		1.0	µg/Kg	40.0		109	70-130		
Tetrachloroethene	40		1.0	µg/Kg	40.0		100	70-130		
Toluene	41		1.0	µg/Kg	40.0		103	70-130		
1,2,3-Trichlorobenzene	39		1.0	µg/Kg	40.0		98.6	70-130		
Trichloroethene	39		1.0	µg/Kg	40.0		97.8	70-130		
1,3,5-Trimethylbenzene	45		1.0	µg/Kg	40.0		113	70-130		
Vinyl Chloride	37		1.0	µg/Kg	40.0		91.6	70-130		
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		101	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		98.5	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.6	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0017 (Continued)										
LCS Dup (B9A0017-BSD1)				Prepared & Analyzed: 01/16/2019						
Benzene	40		1.0	µg/Kg	40.0		101	70-130	0.642	20
Bromobenzene	39		1.0	µg/Kg	40.0		98.1	70-130	2.86	20
Bromodichloromethane	43		1.0	µg/Kg	40.0		107	70-130	0.0936	20
Bromoform	39		1.0	µg/Kg	40.0		97.6	70-130	0.740	20
Chlorobenzene	41		1.0	µg/Kg	40.0		101	70-130	0.713	20
Chloroethane	38		5.0	µg/Kg	40.0		94.2	70-130	7.46	20
Chloroform	40		1.0	µg/Kg	40.0		99.7	70-130	2.18	20
4-Chlorotoluene	42		1.0	µg/Kg	40.0		105	70-130	1.00	20
Dibromomethane	42		1.0	µg/Kg	40.0		106	70-130	1.72	20
1,2-Dichlorobenzene	39		1.0	µg/Kg	40.0		98.7	70-130	1.03	20
1,1-Dichloroethene	34		1.0	µg/Kg	40.0		85.4	70-130	21.8	20
1,2-Dichloropropane	41		1.0	µg/Kg	40.0		102	70-130	1.66	20
2,2-Dichloropropane	42		1.0	µg/Kg	40.0		105	70-130	1.96	20
1,1-Dichloropropene	40		1.0	µg/Kg	40.0		99.5	70-130	5.59	20
Diethyl Ether	36		5.0	µg/Kg	40.0		90.9	70-130	6.85	20
Diisopropyl Ether (DIPE)	41		1.0	µg/Kg	40.0		102	70-130	0.686	20
Ethylbenzene	41		1.0	µg/Kg	40.0		102	70-130	4.20	20
Hexachloro-1,3-Butadiene	39		1.0	µg/Kg	40.0		97.0	70-130	7.06	20
Methylene Chloride	35		20	µg/Kg	40.0		88.5	70-130	19.7	20
Methyl-t-Butyl Ether (MTBE)	35		1.0	µg/Kg	40.0		86.4	70-130	11.9	20
Naphthalene	38		10	µg/Kg	40.0		95.2	70-130	0.131	20
Styrene	42		1.0	µg/Kg	40.0		104	70-130	3.33	20
tert-Butylbenzene	42		1.0	µg/Kg	40.0		106	70-130	3.18	20
Tetrachloroethene	38		1.0	µg/Kg	40.0		96.2	70-130	4.22	20
Toluene	40		1.0	µg/Kg	40.0		100	70-130	3.39	20
1,2,3-Trichlorobenzene	39		1.0	µg/Kg	40.0		98.6	70-130	0.0507	20
Trichloroethene	38		1.0	µg/Kg	40.0		94.8	70-130	3.12	20
1,3,5-Trimethylbenzene	43		1.0	µg/Kg	40.0		107	70-130	4.99	20
Vinyl Chloride	36		1.0	µg/Kg	40.0		90.8	70-130	0.822	20
Surrogate: Dibromofluoromethane	49			µg/Kg	50.0		98.9	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		97.2	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.3	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
B	Analyte was present in an associated method blank.
D	RPD was not within control limits. The sample data was reported without further clarification.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
QB-01	The method blank contains analyte at a concentration above the MRL; however, concentration is less than 10% of the sample result, which is negligible according to method criteria.
QM-07	The spike recovery and or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-PS	The percent recovery and/or RPD are outside acceptance criteria. Results accepted based upon percent recovery results in the post spike and/or serial dilution.
QR-04	The pecent recovery and/or RPD was outside acceptance criteria. Results accepted based upon percent recovery results in duplicate QC sample and the CCV and CCB results.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 4

PAL WO#: P901016

Client Name	Langan
Address	515 S Flower Street, Suite 2860 Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total metals 6020
1	OS-9-0.5'	1/14/19	0811	S	1 G	X	X
2	OS-9-2'		0815	S	1 G		
3	OS-9-5'		0818	S	1 G		
4	OS-9-10'		0837	S	1 G		
5	OS-10-0.5'		0856	S			
6	OS-10-2'		0905	S			
7	OS-10-5'		0908	S			
8	OS-10-10'		0915	S			
9	OS-6-0.5'		0928	S			
10	OS-6-2'		0931	S			

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD 5 day	RUSH 24	48	72
EDD Required - Circle one:	Yes	No		
Type of EDD:				
Reciept Temp./ Initials: (Temp recorded is not corrected)	10.2°C MV			

RELINQUISHED BY

Signature: [signature] DATE: 1/16/19
Print: Kathleen Lo TIME: 0955
Company: Langan

RECEIVED BY

Signature: [signature] DATE: 1/16/19
Print: M Valenzuela TIME: 955
Company: PAL

RELINQUISHED BY

Signature: DATE:
Print: TIME:
Company:

RECEIVED BY

Signature: DATE:
Print: TIME:
Company:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-4230

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901016

Client Name	Langan
Address	515 S Flower St. Suite 2660, Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020	TPH 8015M	VOCs 8260B	SVOCs, PAH 8270C
1	OS-6-5'	1/14/19	0934	S	1 G	X	X			
2	OS-6-10'	1/14/19	1056	S	1 G	X	X			
3	OS-5-0.5		1115	S	1 G	X	X			
4	OS-5-1'		1116		2 G, VOAs			X	X	X
5	OS-5-2'		1120		1 G	X	X			
6	OS-5-5'		1127		2 G, VOAs	X	X	X	X	X
7	OS-7-0.5'		1157		1 G	X	X			
8	OS-7-1'		1159		2 G, VOAs			X	X	X
9	OS-7-2'		1202		1 G	X	X			
10	OS-7-5'	↓	1210	↓	2 G, VOAs	X	X	X	X	X

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): (STD 5 day) RUSH 24 48 72

EDD Required - Circle one: Yes No

Type of EDD:

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY
Signature:
Print: Kathleen Lo
Company: Langan
DATE: 1/16/19
TIME: 0955

RECEIVED BY
Signature:
Print: M Valenzuela
Company: PAL
DATE: 1/16/19
TIME: 955

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-4231

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: 190106

Client Name	Langan
Address	515 S Flower St. Suite 2360, Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020	TPH 8015M	VOCs 8260B	SVOCs, PAH 8270C	PCBs 8082
1	OS-7-10'	1/14/19	1218	S	2G / VOAs	X	X	X	X	X	
2	OS-7-13'		1242		1G / VOAs			X	X		
3	OS-4-0.5'		1420		1G	X	X				
4	OS-4-1'		1422		1G						X
5	OS-4-2'		1429		1G	X	X				
6	BP-2		1459		1G	X	X				
7	OS-12-0.5'		1506		1G	X	X				
8	OS-12-2'		1510		1G	X	X				
9	OS-12-5'		1512		1G	X	X	X			
10	OS-12-10'		1526		2G	X	X	X			

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	(Yes)	No	

TAT Needed (circle one): (STD 5 day) RUSH 24 48 72

EDD Required - Circle one: (Yes) No

Type of EDD:

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: [signature]
Print: Kathleen Lo
Company: Langan
DATE: 1/16/19
TIME: 0955

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 1/16/19
TIME: 955

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-4232

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 4 of 4

PAL WO#: PQ01016

Client Name	Langan
Address	515 S Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020	TPH 8015M
1	OS-12-15'	1/14/19	1523	S	1G			X
2	BP-4	↓	1537	↓	1G			
3	BP-3		1539		↓	X	X	
4	BP-5		1541			X	X	
5	BP-6		1543			X	X	
6	BP-7	↓	1545	↓	↓	X	X	
7								
8								
9								
10								

G-4233

PAL Containers used:	(Yes)	No		
Type of Ice used:	(Wet)	Blue	None	
Sample Preservative:	Yes	No		

TAT Needed (circle one)	STD	RUSH		
	(5 day)	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY

Signature:		DATE: 1/16/19
Print:	Kathleen Lo	
Company:	Langan	TIME: 0955

RECEIVED BY

Signature:		DATE: 1/16/19
Print:	M Valenzuela	
Company:	PAL	TIME: 955

RELINQUISHED BY

Signature:		DATE:
Print:		
Company:		TIME:

RECEIVED BY

Signature:		DATE:
Print:		
Company:		TIME:

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)

****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)

****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P901016

Cooler 1 OF 1

Client Langan

Date Received: 1/16/19

Courier ⊘ CLIENT ⊘ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊘ Sample	10.2	0.0	10.2	TM-12

⊘ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

⊘ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊘ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊘ Not Present

CLIENT COC

⊘ INCLUDED ○ NOT INCLUDED ⊘ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊘ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	☒	☐	☐
All samples listed on COC(s) are present	☒	☐	☐
All sample info on containers are consistent with sample info on COC(s)	☒	☐	☐
Correct containers for analyses requested	☒	☐	☐
Sufficient volume for analyses requested	☒	☐	☐
Proper preservation chemical(s) noted on COC and/or sample container	☒	☐	☐
All samples received within method holding time	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm	☐	☐	☒

NOTES

Initials	Date	Initials	Date
MV	1/16/19		

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Sun Star Laboratories, Inc.
25712 Commercentre Drive
Lake Forest, CA 92630
Phone :(949) 297-5020
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P901016-01 Matrix:Solid Sampled:01/14/2019 08:11			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-02 Matrix:Solid Sampled:01/14/2019 08:15			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-03 Matrix:Solid Sampled:01/14/2019 08:18			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

4.7

Released By	Date	Time	Received By	Date	Time
M Valenzuela	1/16/19	1307	Paul Bruno	1/16/19	13:07
Paul Bruno	1/16/19	14:08		1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-04 Matrix: Solid Sampled: 01/14/2019 08:37			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
4 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-05 Matrix: Solid Sampled: 01/14/2019 08:56			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
5 S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-06 Matrix: Solid Sampled: 01/14/2019 09:05			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
6 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-07 Matrix: Solid Sampled: 01/14/2019 09:08			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
7 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
M Vaquera	1/16/19	1307	Paul Burns	1/16/19	13:07
Paul Burns	1/16/19	14:08		1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-08 Matrix: Solid Sampled: 01/14/2019 09:15			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-09 Matrix: Solid Sampled: 01/14/2019 09:28			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-10 Matrix: Solid Sampled: 01/14/2019 09:31			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-11 Matrix: Solid Sampled: 01/14/2019 09:34			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
M Vasquez	1/16/19	1307	Paul Dunn	1/16/19	13:07
Paul Dunn	1/16/19	14:08		1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-12 Matrix:Solid Sampled:01/14/2019 10:56			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
2 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-13 Matrix:Solid Sampled:01/14/2019 11:15			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
3 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-15 Matrix:Solid Sampled:01/14/2019 11:20			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
4 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-16 Matrix:Solid Sampled:01/14/2019 11:27			
5 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (F)			

Released By	Date	Time	Received By	Date	Time
M Vasquez	1/16/19	1307	Paul Dennis	1/16/19	13:07
Paul Dennis	1/16/19	14:08		1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-17 Matrix: Solid Sampled: 01/14/2019 11:57			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
6 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-19 Matrix: Solid Sampled: 01/14/2019 12:02			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
7 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-20 Matrix: Solid Sampled: 01/14/2019 12:10			
S_Mercury 7471	5	01/23/2019 15:00	
8 S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (F)			
Sample ID: P901016-21 Matrix: Solid Sampled: 01/14/2019 12:18			
S_Mercury 7471	5	01/23/2019 15:00	
9 S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (F)			

Released By	Date	Time	Received By	Date	Time
M Vasquez	1/16/19	1307	Paul Dunn	1/16/19	13:07
Paul Dunn	1/16/19	14:08		1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-22 Matrix:Solid Sampled:01/14/2019 12:42			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
0 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-23 Matrix:Solid Sampled:01/14/2019 14:20			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
-1 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-24 Matrix:Solid Sampled:01/14/2019 14:22			
-2 S_PCB 8082	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-25 Matrix:Solid Sampled:01/14/2019 14:29			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
-3 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
[signature]	1/16/19	1307	[signature]	1/16/19	13:07
[signature]	1/16/19	14:08	[signature]	1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-26 Matrix: Solid Sampled: 01/14/2019 14:59			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
.4 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-27 Matrix: Solid Sampled: 01/14/2019 15:06			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
.5 S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-28 Matrix: Solid Sampled: 01/14/2019 15:10			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
.6 S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-29 Matrix: Solid Sampled: 01/14/2019 15:12			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
7 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	1/16/19	1307	Paul Dunn	1/16/19	13:07
Paul Dunn	1/16/19	14:08	[signature]	1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-30 Matrix: Solid Sampled: 01/14/2019 15:26			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (B)			
Sample ID: P901016-32 Matrix: Solid Sampled: 01/14/2019 15:37			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-33 Matrix: Solid Sampled: 01/14/2019 15:39			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-34 Matrix: Solid Sampled: 01/14/2019 15:41			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
[signature]	1/16/19	1307	[signature]	1/16/19	13:07
[signature]	1/16/19	14:08	[signature]	1-16-19	1408

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

T190115

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-35 **Matrix: Solid** **Sampled: 01/14/2019 15:43**			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-36 **Matrix: Solid** **Sampled: 01/14/2019 15:45**			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
[illegible]	1/16/19	1307	Paul Bruno	1/16/19	13:07
Paul Bruno	1/16/19	14:08	[signature]	1-16-19	1408

SunStar Laboratories — Celebrating 20 Years!

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T190115

Client Name: PAL Project: DTSC RIVERSIDE

Delivered by: ☐ Client ☒ SunStar Courier ☐ GSO ☐ FedEx ☐ Other

If Courier, Received by: PAUL Date/Time Courier Received: 1-16-19 1307

Lab Received by: DAN Date/Time Lab Received: 1-16-19 1408

Total number of coolers received:

Temperature:	Cooler #1 3.5	°C +/- the CF (1.2°C) = 4.7	°C	corrected temperature
Temperature:	Cooler #2	°C +/- the CF (1.2°C) =	°C	corrected temperature
Temperature:	Cooler #3	°C +/- the CF (1.2°C) =	°C	corrected temperature

Temperature criteria = ≤ 6°C (no frozen containers)	Within criteria?	☒ **Yes** ☐ **No**
If NO:		
Samples received on ice?	☐ Yes	☐ **No → Complete Non-Conformance Sheet**
If on ice, samples received same day collected?	☐ Yes → Acceptable	☐ **No → Complete Non-Conformance Sheet**

Custody seals intact on cooler/sample	☐ Yes	☐ No*	☒ N/A
Sample containers intact	☒ Yes	☐ No*	
Sample labels match Chain of Custody IDs	☒ Yes	☐ No*	
Total number of containers received match COC	☒ Yes	☐ No*	
Proper containers received for analyses requested on COC	☒ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☒ N/A
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times	☒ **Yes**	☐ **No***	

* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date: BC 1-16-19

Comments:

(949) 297-5020 ■ www.sunstarlabs.com ■ 25712 Commercentre Drive ■ Lake Forest, CA 92630

Performance Analytical Laboratories, Inc.

ELAP 2960

January 28, 2019

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : DTSC Riverside

Work Order: P901017

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 1/16/2019. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 34

Qualifiers and Definitions 50

Chain of Custody PDFs 51

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P901017-01	OS-14-0.5'		Solid	01/15/2019	01/16/2019
P901017-02	OS-14-2'		Solid	01/15/2019	01/16/2019
P901017-03	OS-14-5'		Solid	01/15/2019	01/16/2019
P901017-04	OS-3-0.5'		Solid	01/15/2019	01/16/2019
P901017-05	OS-3-2'		Solid	01/15/2019	01/16/2019
P901017-06	BP-1		Solid	01/15/2019	01/16/2019
P901017-07	OS-13-0.5'		Solid	01/15/2019	01/16/2019
P901017-08	OS-13-2'		Solid	01/15/2019	01/16/2019
P901017-09	OS-13-5'		Solid	01/15/2019	01/16/2019
P901017-10	TL-1-0.5'		Solid	01/15/2019	01/16/2019
P901017-11	TL-1-2'		Solid	01/15/2019	01/16/2019
P901017-12	TL-1-5'		Solid	01/15/2019	01/16/2019
P901017-13	TL-2-0.5'		Solid	01/15/2019	01/16/2019
P901017-14	TL-2-2'		Solid	01/15/2019	01/16/2019
P901017-15	TL-2-5'		Solid	01/15/2019	01/16/2019
P901017-16	TL-3-0.5'		Solid	01/15/2019	01/16/2019
P901017-17	TL-3-2'		Solid	01/15/2019	01/16/2019
P901017-18	TL-3-5'		Solid	01/15/2019	01/16/2019

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-14-0.5' **P901017-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	**1.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**16**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**85**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**2.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**62**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**1.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	**1.3**	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**87**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-14-2' **P901017-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	**0.88**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**110**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.64**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**2.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**9.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**1.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	**1.2**	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-14-5' **P901017-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	**360**	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	**0.26**	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	**0.54**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**7.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**97**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.83**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**42**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**1.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**22**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**58**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-0.5' **P901017-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
8270CM_PAH_SIM (Batch ID: QC1210263)							
1-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	40%			30-120	01/22/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	48%			27-125	01/22/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	59%			33-155	01/22/2019	EPA 8270CM	
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018)							
C7-C8	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C28-C33	**24.0**	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-0.5' (Continued) **P901017-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018) (Continued)							
Surrogate: n-Octacosane (c28)	88.0%			60-140	01/18/2019	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**1.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**7.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**5.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**9.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**5.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**32**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**39**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-0.5' (Continued) **P901017-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Aniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-0.5' (Continued) **P901017-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Phenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	65%			34-143	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	51%			41-125	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	47%			13-153	01/21/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	50%			27-125	01/21/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	53%			10-110	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-0.5' (Continued) **P901017-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Surrogate: p-Terphenyl (SUR)	72%			33-155	01/21/2019	EPA 8270C	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017)							
Acetone	**30**	µg/Kg	1	18	01/16/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	44	01/16/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.4	01/16/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	18	01/16/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.4	01/16/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.4	01/16/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.4	01/16/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	4.4	01/16/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-0.5' (Continued) **P901017-04 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,1-Dichloroethene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.4	01/16/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	4.4	01/16/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.4	01/16/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.4	01/16/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	18	01/16/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	4.4	01/16/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	18	01/16/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	8.8	01/16/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	18	01/16/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	22	01/16/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	18	01/16/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-0.5' (Continued) **P901017-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)							
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.88	01/16/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.8	01/16/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.7	01/16/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	103%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	95.5%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	109%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	97.4%			60-140	01/16/2019	EPA 8260B/5035	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-2' **P901017-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
8270CM_PAH_SIM (Batch ID: QC1210263)							
1-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	41%			30-120	01/22/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	54%			27-125	01/22/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	59%			33-155	01/22/2019	EPA 8270CM	
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018)							
C7-C8	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/18/2019	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-2' (Continued) **P901017-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0018) (Continued)							
Surrogate: n-Octacosane (c28)	107%			60-140	01/18/2019	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**0.98**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**7.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**5.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**9.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**5.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**40**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**44**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-2' (Continued) **P901017-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Aniline	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-2' (Continued) **P901017-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	01/21/2019	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Phenol	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	01/21/2019	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	01/21/2019	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	67%			34-143	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	54%			41-125	01/21/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	54%			13-153	01/21/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	57%			27-125	01/21/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	58%			10-110	01/21/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-2' (Continued) **P901017-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Surrogate: p-Terphenyl (SUR)	75%			33-155	01/21/2019	EPA 8270C	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017)							
Acetone	**56**	µg/Kg	1	20	01/16/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	50	01/16/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	5.0	01/16/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	01/16/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	5.0	01/16/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	5.0	01/16/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	5.0	01/16/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.0	01/16/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-2' (Continued) **P901017-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)							
1,1-Dichloroethene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	5.0	01/16/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	5.0	01/16/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	5.0	01/16/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	5.0	01/16/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	20	01/16/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	5.0	01/16/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	01/16/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	9.9	01/16/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	20	01/16/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	01/16/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	20	01/16/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-3-2' (Continued) **P901017-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0017) (Continued)							
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
o-Xylene	**1.4**	µg/Kg	1	0.99	01/16/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.0	01/16/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.0	01/16/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	102%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	96.3%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	113%			60-140	01/16/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	98.6%			60-140	01/16/2019	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: BP-1 **P901017-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**23**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**8.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**16**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**37**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**50**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-13-0.5' **P901017-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**69**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**5.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**24**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-13-2' **P901017-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/17/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**4.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**51**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**5.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**23**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-13-5' **P901017-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/18/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**4.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**23**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**6.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**5.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**5.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**16**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: TL-1-0.5' **P901017-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	**300**	ug/kg	1	200	01/18/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**73**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.40**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**23**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**6.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.50**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**42**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: TL-1-2' **P901017-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/18/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**4.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**46**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.38**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**9.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: TL-1-5' **P901017-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/18/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**4.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**48**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.31**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**5.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**6.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**9.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**23**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: TL-2-0.5' **P901017-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	**250**	ug/kg	1	200	01/18/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	**0.36**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**66**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.41**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.37**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**7.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**16**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**2.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**53**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: TL-2-2' **P901017-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/18/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**6.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**48**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.29**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**23**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**5.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**37**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: TL-2-5' **P901017-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/18/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**46**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**5.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**5.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.26**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: TL-3-0.5' **P901017-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	**310**	ug/kg	1	200	01/18/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**64**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.36**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.48**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**23**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**5.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**16**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.55**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**46**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: TL-3-2' **P901017-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/18/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**6.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**53**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.29**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.60**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**16**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**22**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**32**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: TL-3-5' **P901017-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9011630)							
Hexavalent Chromium	ND	ug/kg	1	200	01/18/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9011706)							
Mercury	ND	mg/kg	1	0.10	01/17/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9011708)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**39**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.39**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

8270CM_PAH_SIM

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210263										
LCS (QC1210263LCS1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Pyrene	48		10	ug/Kg	50	NA	96	68-134		
Phenanthrene	46		10	ug/Kg	50	NA	92	65-132		
Benzo(b)fluoranthene	50		10	ug/Kg	50	NA	100	63-147		
1-Methylnaphthalene	37		10	ug/Kg	50	NA	74	38-130		
2-Methylnaphthalene	40		10	ug/Kg	50	NA	80	59-130		
Acenaphthene	38		10	ug/Kg	50	NA	76	58-130		
Acenaphthylene	38		10	ug/Kg	50	NA	76	52-130		
Anthracene	35		10	ug/Kg	50	NA	70	55-136		
Benzo(a)pyrene	51		10	ug/Kg	50	NA	102	36-168		
Benzo(g,h,i)perylene	37		10	ug/Kg	50	NA	74	54-135		
Benzo(k)fluoranthene	45		10	ug/Kg	50	NA	90	64-142		
Chrysene	38		10	ug/Kg	50	NA	76	66-130		
Dibenz(a,h)anthracene	39		10	ug/Kg	50	NA	78	52-144		
Fluoranthene	54		10	ug/Kg	50	NA	108	68-139		
Fluorene	42		10	ug/Kg	50	NA	84	63-130		
Indeno(1,2,3-cd)pyrene	45		10	ug/Kg	50	NA	90	58-144		
Naphthalene	38		10	ug/Kg	50	NA	76	50-130		
Benz(a)anthracene	48		10	ug/Kg	50	NA	96	61-147		
Surrogate: Nitrobenzene-d5 (SUR)	33.601			ug/Kg	50	NA	67	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	33.687			ug/Kg	50	NA	67	30-120		
Surrogate: p-Terphenyl (SUR)	45.212			ug/Kg	50	NA	90	33-155		
Method Blank (QC1210263MB1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Acenaphthene	ND		10	ug/Kg		NA		-		
Acenaphthylene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
Benzo(a)pyrene	12	B	10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
Chrysene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Fluoranthene	12	B	10	ug/Kg		NA		-		
Fluorene	ND		10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Pyrene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Phenanthrene	16	B	10	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	11	B	10	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

8270CM_PAH_SIM (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210263 (Continued)										
MS (QC1210263MS1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
1-Methylnaphthalene	28		10	ug/Kg	50	ND	56	25-130		
Benzo(a)pyrene	53		10	ug/Kg	50	16	74	18-173		
2-Methylnaphthalene	30		10	ug/Kg	50	ND	60	32-133		
Acenaphthene	29		10	ug/Kg	50	ND	58	28-134		
Acenaphthylene	29		10	ug/Kg	50	ND	58	14-157		
Benz(a)anthracene	48		10	ug/Kg	50	11	74	26-174		
Pyrene	45		10	ug/Kg	50	11	68	26-153		
Benzo(b)fluoranthene	52		10	ug/Kg	50	9.2	86	36-164		
Benzo(g,h,i)perylene	36		10	ug/Kg	50	4.1	64	36-130		
Benzo(k)fluoranthene	44		10	ug/Kg	50	9.8	68	36-161		
Phenanthrene	42		10	ug/Kg	50	6.4	71	29-147		
Anthracene	40		10	ug/Kg	50	ND	80	24-156		
Chrysene	38		10	ug/Kg	50	7.9	60	40-139		
Naphthalene	28		10	ug/Kg	50	ND	56	33-130		
Indeno(1,2,3-cd)pyrene	45		10	ug/Kg	50	14	62	26-154		
Fluorene	34		10	ug/Kg	50	ND	68	27-140		
Fluoranthene	51		10	ug/Kg	50	14	74	28-160		
Dibenz(a,h)anthracene	37		10	ug/Kg	50	ND	74	38-132		
Surrogate: 2-Fluorobiphenyl (SUR)	25.403			ug/Kg	50	NA	51	30-120		
Surrogate: p-Terphenyl (SUR)	40.842			ug/Kg	50	NA	82	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	27.272			ug/Kg	50	NA	55	27-125		
MSD (QC1210263MSD1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
Pyrene	49		10	ug/Kg	50	11	76	26-153	8.5	35
Chrysene	42		10	ug/Kg	50	7.9	68	40-139	10	35
2-Methylnaphthalene	40		10	ug/Kg	50	ND	80	32-133	28.6	35
Acenaphthylene	37		10	ug/Kg	50	ND	74	14-157	24.2	35
Anthracene	43		10	ug/Kg	50	ND	86	24-156	7.2	35
Benz(a)anthracene	51		10	ug/Kg	50	11	80	26-174	6.1	35
Benzo(a)pyrene	57		10	ug/Kg	50	16	82	18-173	7.3	35
Benzo(b)fluoranthene	56		10	ug/Kg	50	9.2	94	36-164	7.4	35
1-Methylnaphthalene	37		10	ug/Kg	50	ND	74	25-130	27.7	35
Benzo(k)fluoranthene	47		10	ug/Kg	50	9.8	74	36-161	6.6	35
Dibenz(a,h)anthracene	39		10	ug/Kg	50	ND	78	38-132	5.3	35
Fluoranthene	55		10	ug/Kg	50	14	82	28-160	7.5	35
Fluorene	40		10	ug/Kg	50	ND	80	27-140	16.2	35
Indeno(1,2,3-cd)pyrene	48		10	ug/Kg	50	14	68	26-154	6.5	35
Naphthalene	37		10	ug/Kg	50	ND	74	33-130	27.7	35
Phenanthrene	49		10	ug/Kg	50	6.4	85	29-147	15.4	35
Benzo(g,h,i)perylene	38		10	ug/Kg	50	4.1	68	36-130	5.4	35
Acenaphthene	37		10	ug/Kg	50	ND	74	28-134	24.2	35
Surrogate: 2-Fluorobiphenyl (SUR)	32.523			ug/Kg	50	NA	65	30-120		
Surrogate: Nitrobenzene-d5 (SUR)	35.984			ug/Kg	50	NA	72	27-125		
Surrogate: p-Terphenyl (SUR)	43.647			ug/Kg	50	NA	87	33-155		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

8270CM_PAH_SIM (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: QC1210263 (Continued)

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0018										
Blank (B9A0018-BLK1)				Prepared: 01/16/2019 Analyzed: 01/17/2019						
C7-C8	ND		10.0	mg/kg						
C9-C10	ND		10.0	mg/kg						
C11-C12	ND		10.0	mg/kg						
C13-C14	ND		10.0	mg/kg						
C15-C16	ND		10.0	mg/kg						
C17-C18	ND		10.0	mg/kg						
C19-C20	ND		10.0	mg/kg						
C21-C22	ND		10.0	mg/kg						
C23-C24	ND		10.0	mg/kg						
C25-C27	ND		10.0	mg/kg						
C28-C33	ND		10.0	mg/kg						
C34-C40	ND		10.0	mg/kg						
Surrogate: n-Octacosane (c28)	2.15			mg/kg	2.04		105	60-140		
LCS (B9A0018-BS1)				Prepared: 01/16/2019 Analyzed: 01/17/2019						
Diesel	46.9		10.0	mg/kg	50.0		93.7	70-130		
Surrogate: n-Octacosane (c28)	2.25			mg/kg	2.04		110	60-140		
LCS Dup (B9A0018-BSD1)				Prepared: 01/16/2019 Analyzed: 01/17/2019						
Diesel	45.7		10.0	mg/kg	50.0		91.4	70-130	2.46	20
Surrogate: n-Octacosane (c28)	2.08			mg/kg	2.04		102	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9011630										
Blank (9011630-BLK1)				Prepared: 01/16/2019 Analyzed: 01/17/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9011630-BS1)				Prepared: 01/16/2019 Analyzed: 01/17/2019						
Hexavalent Chromium	9780		200	ug/kg	10000		97.8	80-120		
Matrix Spike (9011630-MS1)		**Source: P901017-01**		Prepared: 01/16/2019 Analyzed: 01/17/2019						
Hexavalent Chromium	9510		200	ug/kg	9650	131	97.2	75-125		
Matrix Spike Dup (9011630-MSD1)		**Source: P901017-01**		Prepared: 01/16/2019 Analyzed: 01/17/2019						
Hexavalent Chromium	9930		200	ug/kg	9690	131	101	75-125	4.33	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9011706										
Blank (9011706-BLK1)				Prepared & Analyzed: 01/17/2019						
Mercury	ND		0.10	mg/kg						
LCS (9011706-BS1)				Prepared: 01/17/2019 Analyzed: 01/23/2019						
Mercury	0.363		0.10	mg/kg	0.403		89.9	80-120		
Matrix Spike (9011706-MS1)		**Source: P901017-01**		Prepared & Analyzed: 01/17/2019						
Mercury	0.328		0.10	mg/kg	0.403	ND	81.4	75-125		
Matrix Spike Dup (9011706-MSD1)		**Source: P901017-01**		Prepared & Analyzed: 01/17/2019						
Mercury	0.337		0.10	mg/kg	0.403	ND	83.6	75-125	2.65	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals by ICP-MS_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9011708										
Blank (9011708-BLK1)				Prepared: 01/17/2019 Analyzed: 01/23/2019						
Antimony	ND		0.25	mg/kg						
Arsenic	ND		0.25	mg/kg						
Barium	ND		0.25	mg/kg						
Beryllium	ND		0.25	mg/kg						
Cadmium	ND		0.25	mg/kg						
Chromium	ND		0.25	mg/kg						
Cobalt	ND		0.25	mg/kg						
Copper	ND		0.25	mg/kg						
Lead	ND		0.25	mg/kg						
Mercury	ND		0.025	mg/kg						
Molybdenum	ND		0.25	mg/kg						
Nickel	ND		0.25	mg/kg						
Selenium	ND		1.2	mg/kg						
Silver	ND		0.25	mg/kg						
Thallium	ND		0.25	mg/kg						
Vanadium	ND		0.25	mg/kg						
Zinc	0.339	QB-01	0.25	mg/kg						
Duplicate (9011708-DUP1)		**Source: P901017-01**		Prepared: 01/17/2019 Analyzed: 01/23/2019						
Barium	81.6		1.2	mg/kg		85.4			4.60	20
LCS (9011708-BS1)				Prepared: 01/17/2019 Analyzed: 01/24/2019						
Arsenic	94.4		0.25	mg/kg	100		94.4	80-120		
Barium	94.0		0.25	mg/kg	100		94.0	80-120		
Cadmium	97.0		0.25	mg/kg	100		97.0	80-120		
Chromium	99.4		0.25	mg/kg	100		99.4	80-120		
Lead	95.4		0.25	mg/kg	100		95.4	80-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals by ICP-MS_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9011708 (Continued)										
Matrix Spike (9011708-MS1)		**Source: P901017-01**			Prepared: 01/17/2019 Analyzed: 01/23/2019					
Arsenic	137		0.25	mg/kg	98.0	16.5	123	75-125		
Barium	214	QM-PS	0.25	mg/kg	98.0	85.4	131	75-125		
Cadmium	112		0.25	mg/kg	98.0	1.61	113	75-125		
Chromium	125		0.25	mg/kg	98.0	14.4	113	75-125		
Lead	171		0.25	mg/kg	98.0	62.3	111	75-125		
Matrix Spike Dup (9011708-MSD1)		**Source: P901017-01**			Prepared: 01/17/2019 Analyzed: 01/23/2019					
Arsenic	132		0.25	mg/kg	99.0	16.5	117	75-125	3.21	20
Barium	249	QM-PS	0.25	mg/kg	99.0	85.4	165	75-125	15.2	20
Cadmium	110		0.25	mg/kg	99.0	1.61	109	75-125	2.30	20
Chromium	130		0.25	mg/kg	99.0	14.4	116	75-125	3.47	20
Lead	171		0.25	mg/kg	99.0	62.3	110	75-125	0.111	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260										
LCS (QC1210260LCS1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Benzo(b)fluoranthene	1700		250	ug/Kg	2000	NA	85	61-125		
4-Chloro-3-methylphenol	1600		250	ug/Kg	2000	NA	80	61-122		
1,2,4-Trichlorobenzene	1300		250	ug/Kg	2000	NA	65	43-111		
1,4-Dichlorobenzene	1200		250	ug/Kg	2000	NA	60	30-116		
2,4,5-Trichlorophenol	1500		250	ug/Kg	2000	NA	75	57-125		
2,4-Dimethylphenol	1500		250	ug/Kg	2000	NA	75	50-112		
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	NA	75	57-124		
3 and 4-Methylphenol (m and p-Cresol)	1600		400	ug/Kg	2000	NA	80	56-124		
4-Nitrophenol	1700		250	ug/Kg	2000	NA	85	54-126		
Acenaphthene	1400		250	ug/Kg	2000	NA	70	53-112		
Chrysene	1500		250	ug/Kg	2000	NA	75	59-117		
N-Nitrosodi-n-propylamine (NDPA)	1600		250	ug/Kg	2000	NA	80	54-110		
Pentachlorophenol	1300		1200	ug/Kg	2000	NA	65	41-103		
Phenol	1400		250	ug/Kg	2000	NA	70	51-111		
Pyrene	1500		250	ug/Kg	2000	NA	75	63-119		
2-Chlorophenol	1400		250	ug/Kg	2000	NA	70	48-114		
Surrogate: 2,4,6-Tribromophenol (SUR)	1613.317			ug/Kg	2000	NA	81	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1457.652			ug/Kg	2000	NA	73	41-125		
Surrogate: Nitrobenzene-d5 (SUR)	1481.625			ug/Kg	2000	NA	74	27-125		
Surrogate: Phenol-d5 (SUR)	1560.604			ug/Kg	2000	NA	78	10-110		
Surrogate: p-Terphenyl (SUR)	1585.422			ug/Kg	2000	NA	79	33-155		
Surrogate: 2-Fluorophenol (SUR)	1371.266			ug/Kg	2000	NA	69	13-153		
Method Blank (QC1210260MB1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260 (Continued)										
Method Blank (QC1210260MB1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
Phenol	ND		250	ug/Kg		NA		-		
Total Cresol	ND		400	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Acenaphthylene	ND		250	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
Acenaphthene	ND		250	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		
Phenanthrene	ND		250	ug/Kg		NA		-		
3-Nitroaniline	ND		250	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
Benz(a)anthracene	ND		250	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
4-Nitrophenol	ND		250	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
Nitrobenzene	ND		1200	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		
Hexachloroethane	ND		250	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
Chrysene	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Naphthalene	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260 (Continued)										
Method Blank (QC1210260MB1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Dibenzofuran	ND		250	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		
Fluorene	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
Surrogate: 2,4,6-Tribromophenol (SUR)	1504.422			ug/Kg	2000	NA	75	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1429.486			ug/Kg	2000	NA	71	41-125		
Surrogate: 2-Fluorophenol (SUR)	1450.847			ug/Kg	2000	NA	73	13-153		
Surrogate: p-Terphenyl (SUR)	1555.128			ug/Kg	2000	NA	78	33-155		
Surrogate: Phenol-d5 (SUR)	1570.777			ug/Kg	2000	NA	79	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1521.013			ug/Kg	2000	NA	76	27-125		
MS (QC1210260MS1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	ND	75	48-109		
Pentachlorophenol	1300		1200	ug/Kg	2000	ND	65	43-120		
N-Nitrosodi-n-propylamine (NDPA)	1400		250	ug/Kg	2000	ND	70	41-127		
Chrysene	1400		250	ug/Kg	2000	ND	70	68-120		
Benzo(b)fluoranthene	1500		250	ug/Kg	2000	ND	75	59-126		
Acenaphthene	1300		250	ug/Kg	2000	ND	65	57-99		
4-Nitrophenol	1600		250	ug/Kg	2000	ND	80	37-107		
4-Chloro-3-methylphenol	1500		250	ug/Kg	2000	ND	75	33-120		
3 and 4-Methylphenol (m and p-Cresol)	1400		400	ug/Kg	2000	ND	70	33-116		
2-Chlorophenol	1300		250	ug/Kg	2000	ND	65	42-102		
2,4-Dimethylphenol	1300		250	ug/Kg	2000	ND	65	37-105		
2,4,5-Trichlorophenol	1400		250	ug/Kg	2000	ND	70	44-108		
1,4-Dichlorobenzene	1000		250	ug/Kg	2000	ND	50	39-95		
1,2,4-Trichlorobenzene	1200		250	ug/Kg	2000	ND	60	35-93		
Phenol	1300		250	ug/Kg	2000	ND	65	46-116		
Pyrene	1500		250	ug/Kg	2000	ND	75	53-129		
Surrogate: Nitrobenzene-d5 (SUR)	988.5			ug/Kg	2000	NA	49	27-125		
Surrogate: 2-Fluorophenol (SUR)	961.254			ug/Kg	2000	NA	48	13-153		
Surrogate: p-Terphenyl (SUR)	1504.131			ug/Kg	2000	NA	75	33-155		
Surrogate: 2,4,6-Tribromophenol (SUR)	1557.47			ug/Kg	2000	NA	78	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1051.419			ug/Kg	2000	NA	53	41-125		
Surrogate: Phenol-d5 (SUR)	1182.169			ug/Kg	2000	NA	59	10-110		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260 (Continued)										
MSD (QC1210260MSD1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
4-Nitrophenol	1700		250	ug/Kg	2000	ND	85	37-107	6.1	30
Pyrene	1300		250	ug/Kg	2000	ND	65	53-129	14.3	30
Phenol	940	D	250	ug/Kg	2000	ND	47	46-116	32.1	30
Pentachlorophenol	1100		1200	ug/Kg	2000	ND	55	43-120	16.7	30
N-Nitrosodi-n-propylamine (NDPA)	1000	D	250	ug/Kg	2000	ND	50	41-127	33.3	30
Chrysene	1200	M	250	ug/Kg	2000	ND	60	68-120	15.4	30
Acenaphthene	1000	M	250	ug/Kg	2000	ND	50	57-99	26.1	30
3 and 4-Methylphenol (m and p-Cresol)	1100		400	ug/Kg	2000	ND	55	33-116	24	30
2-Chlorophenol	910	D	250	ug/Kg	2000	ND	46	42-102	35.3	30
2,4-Dinitrotoluene	1300		250	ug/Kg	2000	ND	65	48-109	14.3	30
2,4-Dimethylphenol	940	D	250	ug/Kg	2000	ND	47	37-105	32.1	30
2,4,5-Trichlorophenol	1200		250	ug/Kg	2000	ND	60	44-108	15.4	30
1,4-Dichlorobenzene	760	M	250	ug/Kg	2000	ND	38	39-95	27.3	30
1,2,4-Trichlorobenzene	840	D	250	ug/Kg	2000	ND	42	35-93	35.3	30
Benzo(b)fluoranthene	1400		250	ug/Kg	2000	ND	70	59-126	6.9	30
4-Chloro-3-methylphenol	1200		250	ug/Kg	2000	ND	60	33-120	22.2	30
Surrogate: p-Terphenyl (SUR)	1358.387			ug/Kg	2000	NA	68	33-155		
Surrogate: Phenol-d5 (SUR)	977.058			ug/Kg	2000	NA	49	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	926.104			ug/Kg	2000	NA	46	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	922.741			ug/Kg	2000	NA	46	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1376.049			ug/Kg	2000	NA	69	34-143		
Surrogate: 2-Fluorophenol (SUR)	863.734			ug/Kg	2000	NA	43	13-153		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0017										
Blank (B9A0017-BLK1)				Prepared & Analyzed: 01/16/2019						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		5.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0017 (Continued)										
Blank (B9A0017-BLK1)				Prepared & Analyzed: 01/16/2019						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		5.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		20	µg/Kg						
Methyl Methacrylate	ND		5.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		20	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	52			µg/Kg	50.0		104	60-140		
Surrogate: 4-Bromofluorobenzene	48			µg/Kg	50.0		95.8	60-140		
Surrogate: 1,2-Dichloroethane-d4	52			µg/Kg	50.0		105	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		97.8	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0017 (Continued)										
LCS (B9A0017-BS1)				Prepared & Analyzed: 01/16/2019						
Benzene	41		1.0	µg/Kg	40.0		102	70-130		
Bromobenzene	40		1.0	µg/Kg	40.0		101	70-130		
Bromodichloromethane	43		1.0	µg/Kg	40.0		107	70-130		
Bromoform	39		1.0	µg/Kg	40.0		98.3	70-130		
Chlorobenzene	41		1.0	µg/Kg	40.0		102	70-130		
Chloroethane	41		5.0	µg/Kg	40.0		101	70-130		
Chloroform	41		1.0	µg/Kg	40.0		102	70-130		
4-Chlorotoluene	42		1.0	µg/Kg	40.0		106	70-130		
Dibromomethane	42		1.0	µg/Kg	40.0		104	70-130		
1,2-Dichlorobenzene	40		1.0	µg/Kg	40.0		99.7	70-130		
1,1-Dichloroethene	43		1.0	µg/Kg	40.0		106	70-130		
1,2-Dichloropropane	41		1.0	µg/Kg	40.0		103	70-130		
2,2-Dichloropropane	43		1.0	µg/Kg	40.0		107	70-130		
1,1-Dichloropropene	42		1.0	µg/Kg	40.0		105	70-130		
Diethyl Ether	39		5.0	µg/Kg	40.0		97.4	70-130		
Diisopropyl Ether (DIPE)	41		1.0	µg/Kg	40.0		102	70-130		
Ethylbenzene	42		1.0	µg/Kg	40.0		106	70-130		
Hexachloro-1,3-Butadiene	42		1.0	µg/Kg	40.0		104	70-130		
Methylene Chloride	43		20	µg/Kg	40.0		108	70-130		
Methyl-t-Butyl Ether (MTBE)	39		1.0	µg/Kg	40.0		97.4	70-130		
Naphthalene	38		10	µg/Kg	40.0		95.1	70-130		
Styrene	43		1.0	µg/Kg	40.0		108	70-130		
tert-Butylbenzene	44		1.0	µg/Kg	40.0		109	70-130		
Tetrachloroethene	40		1.0	µg/Kg	40.0		100	70-130		
Toluene	41		1.0	µg/Kg	40.0		103	70-130		
1,2,3-Trichlorobenzene	39		1.0	µg/Kg	40.0		98.6	70-130		
Trichloroethene	39		1.0	µg/Kg	40.0		97.8	70-130		
1,3,5-Trimethylbenzene	45		1.0	µg/Kg	40.0		113	70-130		
Vinyl Chloride	37		1.0	µg/Kg	40.0		91.6	70-130		
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		101	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		98.5	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.6	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0017 (Continued)										
LCS Dup (B9A0017-BSD1)				Prepared & Analyzed: 01/16/2019						
Benzene	40		1.0	µg/Kg	40.0		101	70-130	0.642	20
Bromobenzene	39		1.0	µg/Kg	40.0		98.1	70-130	2.86	20
Bromodichloromethane	43		1.0	µg/Kg	40.0		107	70-130	0.0936	20
Bromoform	39		1.0	µg/Kg	40.0		97.6	70-130	0.740	20
Chlorobenzene	41		1.0	µg/Kg	40.0		101	70-130	0.713	20
Chloroethane	38		5.0	µg/Kg	40.0		94.2	70-130	7.46	20
Chloroform	40		1.0	µg/Kg	40.0		99.7	70-130	2.18	20
4-Chlorotoluene	42		1.0	µg/Kg	40.0		105	70-130	1.00	20
Dibromomethane	42		1.0	µg/Kg	40.0		106	70-130	1.72	20
1,2-Dichlorobenzene	39		1.0	µg/Kg	40.0		98.7	70-130	1.03	20
1,1-Dichloroethene	34		1.0	µg/Kg	40.0		85.4	70-130	21.8	20
1,2-Dichloropropane	41		1.0	µg/Kg	40.0		102	70-130	1.66	20
2,2-Dichloropropane	42		1.0	µg/Kg	40.0		105	70-130	1.96	20
1,1-Dichloropropene	40		1.0	µg/Kg	40.0		99.5	70-130	5.59	20
Diethyl Ether	36		5.0	µg/Kg	40.0		90.9	70-130	6.85	20
Diisopropyl Ether (DIPE)	41		1.0	µg/Kg	40.0		102	70-130	0.686	20
Ethylbenzene	41		1.0	µg/Kg	40.0		102	70-130	4.20	20
Hexachloro-1,3-Butadiene	39		1.0	µg/Kg	40.0		97.0	70-130	7.06	20
Methylene Chloride	35		20	µg/Kg	40.0		88.5	70-130	19.7	20
Methyl-t-Butyl Ether (MTBE)	35		1.0	µg/Kg	40.0		86.4	70-130	11.9	20
Naphthalene	38		10	µg/Kg	40.0		95.2	70-130	0.131	20
Styrene	42		1.0	µg/Kg	40.0		104	70-130	3.33	20
tert-Butylbenzene	42		1.0	µg/Kg	40.0		106	70-130	3.18	20
Tetrachloroethene	38		1.0	µg/Kg	40.0		96.2	70-130	4.22	20
Toluene	40		1.0	µg/Kg	40.0		100	70-130	3.39	20
1,2,3-Trichlorobenzene	39		1.0	µg/Kg	40.0		98.6	70-130	0.0507	20
Trichloroethene	38		1.0	µg/Kg	40.0		94.8	70-130	3.12	20
1,3,5-Trimethylbenzene	43		1.0	µg/Kg	40.0		107	70-130	4.99	20
Vinyl Chloride	36		1.0	µg/Kg	40.0		90.8	70-130	0.822	20
Surrogate: Dibromofluoromethane	49			µg/Kg	50.0		98.9	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		97.2	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.3	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
B	Analyte was present in an associated method blank.
D	RPD was not within control limits. The sample data was reported without further clarification.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
QB-01	The method blank contains analyte at a concentration above the MRL; however, concentration is less than 10% of the sample result, which is negligible according to method criteria.
QM-PS	The percent recovery and/or RPD are outside acceptance criteria. Results accepted based upon percent recovery results in the post spike and/or serial dilution.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901017

Client Name / Address	Langan 515 S Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Neil Shukla/ Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH 8015M	Cr VI 7199	Total Metals 6020	VOCs 8260B	SVOCs, PAHs 8270C	Dioxins 1613
1	OS-14-0.5'	1/15/19	0732	S	1G		X	X			
2	OS-14-2'		0735		1G		X	X			
3	OS-14-5'		0739		1G		X	X			
4	OS-3-0.5'		0843		2G / VOAs	X	X	X	X	X	X
5	OS-3-2'		0851		2G / VOAs	X	X	X	X	X	X
6	BP-1		0900		1G		X	X			
7	OS-13-0.5'		0950		1G		X	X			
8	OS-13-2'		0952		1G		X	X			
9	OS-13-5'		0954		1G		X	X			
10	TL-1-0.5'	↓	1138	↓	1G		X	X			

REQUESTED ANALYSIS

G-4295

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	(5 day)	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)	3.5 °C MV	

RELINQUISHED BY
Signature:
Print: Kathleen Lo
Company: Langan
DATE: 1/16/19
TIME: 0955

RECEIVED BY
Signature:
Print: M Valenzuela
Company: PAL
DATE: 1/16/19
TIME: 955

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 2 of 2

PAL WO#: P901017

Client Name / Address	Langan 515 S Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Neil Shukla/ Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH	CrVI 7199	Total Metals 6020	VOA	BTEX+MTBE	8
1	TL-1-2'	1/15/19	1142	S	1G		X	X			
2	TL-1-5'	↓	1148	↓	1G		X	X			
3	TL-2-0.5'		1452		1G		X	X			
4	TL-2-2'		1455		1G		X	X			
5	TL-2-5'		1458		1G		X	X			
6	TL-3-0.5'		1620		1G		X	X			
7	TL-3-2'		1625		1G		X	X			
8	TL-3-5'	↓	1630	↓	1G		X	X			
9											
10											

REQUESTED ANALYSIS

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD 5 day	RUSH 24	48	72
	(STD)			

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY
Signature:
Print: Kathleen Lo
Company: Langan
DATE: 1/16/19
TIME: 0955

RECEIVED BY
Signature:
Print: M Valenzuela
Company: PAL
DATE: 1/16/19
TIME: 955

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-4296

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P901017

Cooler 1 OF 1

Client: Langan

Date Received: 1/16/19

Courier: ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	3.5	0.0	3.5	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MV	1/16/19		

Performance Analytical Laboratories, Inc.

T190116

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901017

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Sun Star Laboratories, Inc.
25712 Commercentre Drive
Lake Forest, CA 92630
Phone :(949) 297-5020
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P901017-01 Matrix: Solid Sampled: 01/15/2019 07:32			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901017-02 Matrix: Solid Sampled: 01/15/2019 07:35			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901017-03 Matrix: Solid Sampled: 01/15/2019 07:39			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	4.7
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
M Vaquera	1/16/19	1309	Paul Dunn	1/16/19	13:07
Paul Dunn	1/16/19	14:08		1-16-19	1408

Performance Analytical Laboratories, Inc.

T190116

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901017

Analysis	TAT	Due	Comments
Sample ID: P901017-04 Matrix: Solid Sampled: 01/15/2019 08:43			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (E)			
Sample ID: P901017-05 Matrix: Solid Sampled: 01/15/2019 08:51			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (E)			
Sample ID: P901017-06 Matrix: Solid Sampled: 01/15/2019 09:00			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901017-07 Matrix: Solid Sampled: 01/15/2019 09:50			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
[illegible]	1/16/19	1309	Paul Dunn	1/16/19	13:07
Paul Dunn	1/16/19	14:08	[illegible]	1-16-19	1408

Performance Analytical Laboratories, Inc.

T190116

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901017

Analysis	TAT	Due	Comments
Sample ID: P901017-08 Matrix: Solid Sampled: 01/15/2019 09:52			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901017-09 Matrix: Solid Sampled: 01/15/2019 09:54			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901017-10 Matrix: Solid Sampled: 01/15/2019 11:38			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901017-11 Matrix: Solid Sampled: 01/15/2019 11:42			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
[illegible]	1/16/19	1309	Paul Bunn	1/16/19	13:07
Paul Bunn	1/16/19	14:08		1-16-19	1408

Performance Analytical Laboratories, Inc.

TR0116

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901017

Analysis	TAT	Due	Comments
Sample ID: P901017-12 **Matrix: Solid** **Sampled: 01/15/2019 11:48**			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
2 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901017-13 **Matrix: Solid** **Sampled: 01/15/2019 14:52**			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
13 S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901017-14 **Matrix: Solid** **Sampled: 01/15/2019 14:55**			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
4 S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901017-15 **Matrix: Solid** **Sampled: 01/15/2019 14:58**			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
5 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
[signature]	1/16/19	1309	Paul Dunn	1/16/19	13:07
Paul Dunn	1/16/19	14:08	[signature]	1-16-19	1408

Performance Analytical Laboratories, Inc.

T190116

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901017

Analysis	TAT	Due	Comments
Sample ID: P901017-16 Matrix: Solid Sampled: 01/15/2019 16:20			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901017-17 Matrix: Solid Sampled: 01/15/2019 16:25			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901017-18 Matrix: Solid Sampled: 01/15/2019 16:30			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

4.8°

Released By	Date	Time	Received By	Date	Time
M Valgenado	1/16/19	1309	Paul Dunn	1/16/19	13:07
Paul Dunn	1/16/19	14:08		1-16-19	1408

SunStar Laboratories — Celebrating 20 Years!

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T190116

Client Name: PAL Project: DTSC RIVERSIDE

Delivered by: ☐ Client ☒ SunStar Courier ☐ GSO ☐ FedEx ☐ Other

If Courier, Received by: PAUL Date/Time Courier Received: 1-16-19 1307

Lab Received by: DAN Date/Time Lab Received: 1-16-19 1408

Total number of coolers received: 0

Temperature:	Cooler #1 3.5	°C +/- the CF (1.2°C) =	4.7	°C corrected temperature
Temperature:	Cooler #2	°C +/- the CF (1.2°C) =		°C corrected temperature
Temperature:	Cooler #3	°C +/- the CF (1.2°C) =		°C corrected temperature

Temperature criteria = ≤ 6°C (no frozen containers) Within criteria? ☒ **Yes** ☐ **No**

If NO:

Samples received on ice? ☐ Yes ☐ **No → Complete Non-Conformance Sheet**

If on ice, samples received same day collected? ☐ Yes → Acceptable ☐ **No → Complete Non-Conformance Sheet**

Custody seals intact on cooler/sample	☐ Yes	☐ No*	☒ N/A
Sample containers intact	☒ Yes	☐ No*	
Sample labels match Chain of Custody IDs	☒ Yes	☐ No*	
Total number of containers received match COC	☒ Yes	☐ No*	
Proper containers received for analyses requested on COC	☒ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☒ N/A
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times	☒ **Yes**	☐ **No***	

* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date: BC 1/16/19

Comments:

(949) 297-5020 ■ www.sunstarlabs.com ■ 25712 Commercentre Drive ■ Lake Forest, CA 92630

Performance Analytical Laboratories, Inc.

ELAP 2960

January 30, 2019

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : DTSC Riverside

Work Order: P901022

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 1/19/2019. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 50

Qualifiers and Definitions 68

Chain of Custody PDFs 69

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P901022-01	OS-11-0.5'		Solid	01/18/2019	01/19/2019
P901022-02	OS-11-1'		Solid	01/18/2019	01/19/2019
P901022-03	OS-11-2'		Solid	01/18/2019	01/19/2019
P901022-04	OS-11-5'		Solid	01/18/2019	01/19/2019
P901022-05	SW-1-0.5'		Solid	01/18/2019	01/19/2019
P901022-06	SW-1-2'		Solid	01/18/2019	01/19/2019
P901022-07	SW-1-C-5'		Solid	01/18/2019	01/19/2019
P901022-08	SW-1-B-5'		Solid	01/18/2019	01/19/2019
P901022-09	TL-4-0.5'		Solid	01/18/2019	01/19/2019
P901022-10	TL-4-2'		Solid	01/18/2019	01/19/2019
P901022-11	TL-4-5'		Solid	01/18/2019	01/19/2019
P901022-12	VP-5-0.5'		Solid	01/18/2019	01/19/2019
P901022-13	VP-5-2'		Solid	01/18/2019	01/19/2019
P901022-14	VP-5-5'		Solid	01/18/2019	01/19/2019
P901022-15	CKDSP5-S01-0.5'		Solid	01/18/2019	01/19/2019
P901022-16	CKDSP5-S01-2'		Solid	01/18/2019	01/19/2019
P901022-17	CKDSP5-S01-5'		Solid	01/18/2019	01/19/2019
P901022-18	CKDSP5-S02-0.5'		Solid	01/18/2019	01/19/2019
P901022-19	CKDSP5-S02-2'		Solid	01/18/2019	01/19/2019
P901022-20	CKDSP5-S02-5'		Solid	01/18/2019	01/19/2019
P901022-21	CKDSP5-S05-0.5'		Solid	01/18/2019	01/19/2019
P901022-22	CKDSP5-S05-2'		Solid	01/18/2019	01/19/2019
P901022-23	CKDSP5-S05-5'		Solid	01/18/2019	01/19/2019
P901022-24	CKDSP5-S04-0.5'		Solid	01/18/2019	01/19/2019
P901022-25	CKDSP5-S04-2'		Solid	01/18/2019	01/19/2019
P901022-26	CKDSP5-S04-5'		Solid	01/18/2019	01/19/2019
P901022-27	CKDSP5-S03-0.5'		Solid	01/18/2019	01/19/2019
P901022-28	CKDSP5-S03-2'		Solid	01/18/2019	01/19/2019
P901022-29	CKDSP5-S03-5'		Solid	01/18/2019	01/19/2019
P901022-30	WC-2-0.5'		Solid	01/18/2019	01/19/2019
P901022-31	WC-2-2'		Solid	01/18/2019	01/19/2019
P901022-32	WC-2-5'		Solid	01/18/2019	01/19/2019
P901022-33	WC-1-0.5'		Solid	01/18/2019	01/19/2019
P901022-34	WC-1-2'		Solid	01/18/2019	01/19/2019
P901022-35	WC-1-5'		Solid	01/18/2019	01/19/2019

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-0.5' **P901022-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	**0.75**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**52**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.39**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.52**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**7.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**44**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.60**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.59**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**50**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-1' **P901022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
8270CM_PAH_SIM (Batch ID: QC1210263)							
1-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	42%			30-120	01/22/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	51%			27-125	01/22/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	16%			33-155	01/22/2019	EPA 8270CM	S
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022)							
C7-C8	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C28-C33	**11.7**	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-1' (Continued) **P901022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022) (Continued)							
Surrogate: n-Octacosane (c28)	97.0%			60-140	01/24/2019	EPA 8015B (M)	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	01/22/2019	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Aniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-1' (Continued) **P901022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Azobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-1' (Continued) **P901022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Phenanthrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Phenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	01/22/2019	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	69%			34-143	01/22/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	59%			41-125	01/22/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	56%			13-153	01/22/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	61%			27-125	01/22/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	65%			10-110	01/22/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	66%			33-155	01/22/2019	EPA 8270C	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023)							
Acetone	**24**	µg/Kg	1	15	01/23/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	38	01/23/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	15	01/23/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-1' (Continued) **P901022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)							
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	15	01/23/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	15	01/23/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	7.6	01/23/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	15	01/23/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-1' (Continued) **P901022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	19	01/23/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	15	01/23/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.5	01/23/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.3	01/23/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	106%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	93.3%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	110%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	116%			60-140	01/23/2019	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-2' **P901022-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	**1.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**51**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.48**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**8.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**7.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**39**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**48**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.51**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.46**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**37**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-5' **P901022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
8270CM_PAH_SIM (Batch ID: QC1210263)							
1-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benz(a)anthracene	**14**	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Fluoranthene	**23**	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Pyrene	**15**	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	47%			30-120	01/22/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	64%			27-125	01/22/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	55%			33-155	01/22/2019	EPA 8270CM	
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022)							
C7-C8	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-5' (Continued) **P901022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022) (Continued)							
Surrogate: n-Octacosane (c28)	104%			60-140	01/24/2019	EPA 8015B (M)	
Hexavalent Chromium _Subcontract (Batch ID: 9012901)							
Hexavalent Chromium	ND	ug/kg	1	200	01/29/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	**4.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**94**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**48**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**5.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**110**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**60**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**1.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.47**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**48**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-5' (Continued) **P901022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	01/22/2019	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Aniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-5' (Continued) **P901022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Phenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	01/22/2019	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	76%			34-143	01/22/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	65%			41-125	01/22/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	70%			13-153	01/22/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-5' (Continued) **P901022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Surrogate: Nitrobenzene-d5 (SUR)	75%			27-125	01/22/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	75%			10-110	01/22/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	73%			33-155	01/22/2019	EPA 8270C	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023)							
Acetone	**39**	µg/Kg	1	17	01/23/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	42	01/23/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	01/23/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-5' (Continued) **P901022-04 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,2-Dichloroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	17	01/23/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	01/23/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	8.4	01/23/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	17	01/23/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	17	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-11-5' (Continued) **P901022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)							
Toluene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.7	01/23/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.5	01/23/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	107%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	96.6%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	114%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	98.6%			60-140	01/23/2019	EPA 8260B/5035	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-1-0.5' **P901022-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	**360**	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**5.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**40**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.93**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**9.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.76**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.32**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**37**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-1-2' **P901022-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	**370**	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**6.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**38**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.96**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.58**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.26**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-1-C-5' **P901022-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	**4700**	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	**0.31**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**8.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**52**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**6.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**2.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**9.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**74**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**3.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	**2.2**	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.75**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.98**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: SW-1-B-5' **P901022-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**1.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: TL-4-0.5' **P901022-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**2.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**26**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**8.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**6.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: TL-4-2' **P901022-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**2.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**8.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: TL-4-5' **P901022-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**2.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**8.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VP-5-0.5' **P901022-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**36**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.31**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VP-5-2' **P901022-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**2.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**31**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: VP-5-5' **P901022-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**9.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**4.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.36**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S01-0.5' **P901022-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**5.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S01-2' **P901022-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**4.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S01-5' **P901022-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**1.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**22**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**6.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**2.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**6.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**2.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**5.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S02-0.5' **P901022-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**4.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**38**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**9.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**5.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**9.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S02-2' **P901022-19 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**2.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**22**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S02-5' **P901022-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**1.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**32**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**2.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**22**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S05-0.5' **P901022-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**2.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**31**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**8.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**6.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.38**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**16**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S05-2' **P901022-22 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.29**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**8.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.26**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S05-5' **P901022-23 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**1.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**29**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**8.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.36**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S04-0.5' **P901022-24 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	**360**	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**7.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**53**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.42**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**5.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**32**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.43**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.52**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.68**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**26**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**36**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S04-2' **P901022-25 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**320**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.96**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**37**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**53**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**6.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**2.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**29**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.40**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**72**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**170**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S04-5' **P901022-26 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	**810**	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**6.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**70**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.46**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**7.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**5.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**1.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**45**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S03-0.5' **P901022-27 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**29**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.56**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S03-2' **P901022-28 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**24**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.32**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.59**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**24**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: CKDSP5-S03-5' **P901022-29 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	**450**	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**38**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.29**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**4.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.55**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**9.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**24**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: WC-2-0.5' **P901022-30 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	**0.16**	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**93**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**7.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**130**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.51**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	**1.2**	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**1.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.89**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**160**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: WC-2-2' **P901022-31 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	**0.17**	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	**0.40**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**43**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**120**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**150**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.77**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**51**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	**2.1**	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**1.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.73**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**54**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**220**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: WC-2-5' **P901022-32 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**5.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**50**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**39**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**24**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**49**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: WC-1-0.5' **P901022-33 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	**7500**	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	**0.38**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**69**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**23**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**1.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**140**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**6.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**5.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	**9.0**	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**2.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**1.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**42**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: WC-1-2' **P901022-34 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	**2500**	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	**0.37**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**12**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**62**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	**8.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**13**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**2.6**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**8.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**100**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	**1.6**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**7.0**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	**2.5**	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	**1.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	**1.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**23**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**44**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: WC-1-5' **P901022-35 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	**4200**	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	**0.50**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**15**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**81**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	**18**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**18**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**2.1**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**10**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**150**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	**2.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**6.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	**5.5**	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	**2.7**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	**2.5**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**37**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

8270CM_PAH_SIM

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210263										
LCS (QC1210263LCS1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Pyrene	48		10	ug/Kg	50	NA	96	68-134		
Phenanthrene	46		10	ug/Kg	50	NA	92	65-132		
Benzo(b)fluoranthene	50		10	ug/Kg	50	NA	100	63-147		
1-Methylnaphthalene	37		10	ug/Kg	50	NA	74	38-130		
2-Methylnaphthalene	40		10	ug/Kg	50	NA	80	59-130		
Acenaphthene	38		10	ug/Kg	50	NA	76	58-130		
Acenaphthylene	38		10	ug/Kg	50	NA	76	52-130		
Anthracene	35		10	ug/Kg	50	NA	70	55-136		
Benzo(a)pyrene	51		10	ug/Kg	50	NA	102	36-168		
Benzo(g,h,i)perylene	37		10	ug/Kg	50	NA	74	54-135		
Benzo(k)fluoranthene	45		10	ug/Kg	50	NA	90	64-142		
Chrysene	38		10	ug/Kg	50	NA	76	66-130		
Dibenz(a,h)anthracene	39		10	ug/Kg	50	NA	78	52-144		
Fluoranthene	54		10	ug/Kg	50	NA	108	68-139		
Fluorene	42		10	ug/Kg	50	NA	84	63-130		
Indeno(1,2,3-cd)pyrene	45		10	ug/Kg	50	NA	90	58-144		
Naphthalene	38		10	ug/Kg	50	NA	76	50-130		
Benz(a)anthracene	48		10	ug/Kg	50	NA	96	61-147		
Surrogate: Nitrobenzene-d5 (SUR)	33.601			ug/Kg	50	NA	67	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	33.687			ug/Kg	50	NA	67	30-120		
Surrogate: p-Terphenyl (SUR)	45.212			ug/Kg	50	NA	90	33-155		
Method Blank (QC1210263MB1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Pyrene	ND		10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Acenaphthene	ND		10	ug/Kg		NA		-		
Acenaphthylene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
Chrysene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Fluoranthene	12	B	10	ug/Kg		NA		-		
Fluorene	ND		10	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	11	B	10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Phenanthrene	16	B	10	ug/Kg		NA		-		
Benzo(a)pyrene	12	B	10	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

8270CM_PAH_SIM (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210263 (Continued)										
MS (QC1210263MS1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
Benzo(g,h,i)perylene	36		10	ug/Kg	50	4.1	64	36-130		
Dibenz(a,h)anthracene	37		10	ug/Kg	50	ND	74	38-132		
Fluoranthene	51		10	ug/Kg	50	14	74	28-160		
Benzo(k)fluoranthene	44		10	ug/Kg	50	9.8	68	36-161		
Benzo(b)fluoranthene	52		10	ug/Kg	50	9.2	86	36-164		
Benzo(a)pyrene	53		10	ug/Kg	50	16	74	18-173		
Benz(a)anthracene	48		10	ug/Kg	50	11	74	26-174		
Anthracene	40		10	ug/Kg	50	ND	80	24-156		
Acenaphthylene	29		10	ug/Kg	50	ND	58	14-157		
Acenaphthene	29		10	ug/Kg	50	ND	58	28-134		
2-Methylnaphthalene	30		10	ug/Kg	50	ND	60	32-133		
Chrysene	38		10	ug/Kg	50	7.9	60	40-139		
Fluorene	34		10	ug/Kg	50	ND	68	27-140		
Indeno(1,2,3-cd)pyrene	45		10	ug/Kg	50	14	62	26-154		
Naphthalene	28		10	ug/Kg	50	ND	56	33-130		
Phenanthrene	42		10	ug/Kg	50	6.4	71	29-147		
Pyrene	45		10	ug/Kg	50	11	68	26-153		
1-Methylnaphthalene	28		10	ug/Kg	50	ND	56	25-130		
Surrogate: 2-Fluorobiphenyl (SUR)	25.403			ug/Kg	50	NA	51	30-120		
Surrogate: Nitrobenzene-d5 (SUR)	27.272			ug/Kg	50	NA	55	27-125		
Surrogate: p-Terphenyl (SUR)	40.842			ug/Kg	50	NA	82	33-155		
MSD (QC1210263MSD1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
Fluorene	40		10	ug/Kg	50	ND	80	27-140	16.2	35
Pyrene	49		10	ug/Kg	50	11	76	26-153	8.5	35
Phenanthrene	49		10	ug/Kg	50	6.4	85	29-147	15.4	35
Naphthalene	37		10	ug/Kg	50	ND	74	33-130	27.7	35
Chrysene	42		10	ug/Kg	50	7.9	68	40-139	10	35
Acenaphthene	37		10	ug/Kg	50	ND	74	28-134	24.2	35
1-Methylnaphthalene	37		10	ug/Kg	50	ND	74	25-130	27.7	35
Fluoranthene	55		10	ug/Kg	50	14	82	28-160	7.5	35
2-Methylnaphthalene	40		10	ug/Kg	50	ND	80	32-133	28.6	35
Dibenz(a,h)anthracene	39		10	ug/Kg	50	ND	78	38-132	5.3	35
Acenaphthylene	37		10	ug/Kg	50	ND	74	14-157	24.2	35
Anthracene	43		10	ug/Kg	50	ND	86	24-156	7.2	35
Benz(a)anthracene	51		10	ug/Kg	50	11	80	26-174	6.1	35
Benzo(a)pyrene	57		10	ug/Kg	50	16	82	18-173	7.3	35
Benzo(b)fluoranthene	56		10	ug/Kg	50	9.2	94	36-164	7.4	35
Benzo(g,h,i)perylene	38		10	ug/Kg	50	4.1	68	36-130	5.4	35
Benzo(k)fluoranthene	47		10	ug/Kg	50	9.8	74	36-161	6.6	35
Indeno(1,2,3-cd)pyrene	48		10	ug/Kg	50	14	68	26-154	6.5	35
Surrogate: p-Terphenyl (SUR)	43.647			ug/Kg	50	NA	87	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	35.984			ug/Kg	50	NA	72	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	32.523			ug/Kg	50	NA	65	30-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

8270CM_PAH_SIM (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: QC1210263 (Continued)

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0022										
Blank (B9A0022-BLK1)				Prepared & Analyzed: 01/24/2019						
C7-C8	ND		10.0	mg/kg						
C9-C10	ND		10.0	mg/kg						
C11-C12	ND		10.0	mg/kg						
C13-C14	ND		10.0	mg/kg						
C15-C16	ND		10.0	mg/kg						
C17-C18	ND		10.0	mg/kg						
C19-C20	ND		10.0	mg/kg						
C21-C22	ND		10.0	mg/kg						
C23-C24	ND		10.0	mg/kg						
C25-C27	ND		10.0	mg/kg						
C28-C33	ND		10.0	mg/kg						
C34-C40	ND		10.0	mg/kg						
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.04		95.1	60-140		
LCS (B9A0022-BS1)				Prepared & Analyzed: 01/24/2019						
Diesel	44.4		10.0	mg/kg	50.0		88.9	70-130		
Surrogate: n-Octacosane (c28)	2.07			mg/kg	2.04		101	60-140		
LCS Dup (B9A0022-BSD1)				Prepared & Analyzed: 01/24/2019						
Diesel	45.4		10.0	mg/kg	50.0		90.8	70-130	2.09	20
Surrogate: n-Octacosane (c28)	2.01			mg/kg	2.04		98.4	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium _Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012130										
Blank (9012130-BLK1)				Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9012130-BS1)				Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	9160		200	ug/kg	10000		91.6	80-120		
Matrix Spike (9012130-MS1)		**Source: P901022-21**		Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	8610		200	ug/kg	10200	ND	84.1	75-125		
Matrix Spike Dup (9012130-MSD1)		**Source: P901022-21**		Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	8450		200	ug/kg	10400	ND	81.5	75-125	1.88	20
Batch: 9012133										
Blank (9012133-BLK1)				Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9012133-BS1)				Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	8900		200	ug/kg	10000		89.0	80-120		
Matrix Spike (9012133-MS1)		**Source: P901022-23**		Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	8880		200	ug/kg	9840	ND	90.2	75-125		
Matrix Spike Dup (9012133-MSD1)		**Source: P901022-23**		Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	8090		200	ug/kg	9580	ND	84.4	75-125	9.36	20
Batch: 9012901										
Blank (9012901-BLK1)				Prepared & Analyzed: 01/29/2019						
Hexavalent Chromium	ND		200	ug/kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium _Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012901 (Continued)										
LCS (9012901-BS1)				Prepared & Analyzed: 01/29/2019						
Hexavalent Chromium	10000		200	ug/kg	10000		100	80-120		
Matrix Spike (9012901-MS1)		**Source: P901022-04**		Prepared & Analyzed: 01/29/2019						
Hexavalent Chromium	9720		200	ug/kg	9840	ND	98.7	75-125		
Matrix Spike Dup (9012901-MSD1)		**Source: P901022-04**		Prepared & Analyzed: 01/29/2019						
Hexavalent Chromium	9230		200	ug/kg	9840	ND	93.8	75-125	5.13	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012128										
Blank (9012128-BLK1)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	ND		0.10	mg/kg						
LCS (9012128-BS1)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	0.403		0.10	mg/kg	0.417		96.7	80-120		
Matrix Spike (9012128-MS1)		**Source: P901022-01**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	0.420		0.10	mg/kg	0.397	0.0280	98.7	75-125		
Matrix Spike Dup (9012128-MSD1)		**Source: P901022-01**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	0.432		0.10	mg/kg	0.417	0.0280	97.0	75-125	2.91	20
Batch: 9012132										
Blank (9012132-BLK1)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	ND		0.10	mg/kg						
LCS (9012132-BS1)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	0.402		0.10	mg/kg	0.403		99.8	80-120		
Matrix Spike (9012132-MS1)		**Source: P901022-22**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	0.379		0.10	mg/kg	0.391	ND	97.0	75-125		
Matrix Spike Dup (9012132-MSD1)		**Source: P901022-22**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	0.385		0.10	mg/kg	0.403	ND	95.5	75-125	1.55	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals, Title 22 ICP-MS_ Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012129										
Blank (9012129-BLK1)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Antimony	ND		0.25	mg/kg						
Arsenic	ND		0.25	mg/kg						
Barium	ND		0.25	mg/kg						
Beryllium	ND		0.25	mg/kg						
Cadmium	ND		0.25	mg/kg						
Chromium	0.353	QB-01	0.25	mg/kg						
Cobalt	ND		0.25	mg/kg						
Copper	ND		0.25	mg/kg						
Lead	ND		0.25	mg/kg						
Mercury	ND		0.025	mg/kg						
Molybdenum	ND		0.25	mg/kg						
Nickel	ND		0.25	mg/kg						
Selenium	ND		1.2	mg/kg						
Silver	ND		0.25	mg/kg						
Thallium	ND		0.25	mg/kg						
Vanadium	ND		0.25	mg/kg						
Zinc	ND		0.25	mg/kg						
Duplicate (9012129-DUP1)		**Source: P901022-01**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Barium	32.4	QM-05	1.2	mg/kg		51.8			46.2	20
Lead	29.5	QM-05	1.2	mg/kg		43.7			38.9	20
LCS (9012129-BS1)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Arsenic	95.7		0.25	mg/kg	100		95.7	80-120		
Barium	98.2		0.25	mg/kg	100		98.2	80-120		
Cadmium	96.1		0.25	mg/kg	100		96.1	80-120		
Chromium	97.7		0.25	mg/kg	100		97.7	80-120		
Lead	97.8		0.25	mg/kg	100		97.8	80-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals, Title 22 ICP-MS_ Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012129 (Continued)										
Matrix Spike (9012129-MS1)		**Source: P901022-01**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Arsenic	114		0.25	mg/kg	95.2	19.5	99.2	75-125		
Barium	116	QM-05	0.25	mg/kg	95.2	51.8	67.4	75-125		
Cadmium	86.8		0.25	mg/kg	95.2	0.525	90.6	75-125		
Chromium	96.7		0.25	mg/kg	95.2	10.9	90.0	75-125		
Lead	110	QM-05	0.25	mg/kg	95.2	43.7	69.9	75-125		
Matrix Spike Dup (9012129-MSD1)		**Source: P901022-01**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Arsenic	99.4		0.25	mg/kg	99.0	19.5	80.7	75-125	13.7	20
Barium	112	QM-05	0.25	mg/kg	99.0	51.8	61.0	75-125	3.34	20
Cadmium	89.2		0.25	mg/kg	99.0	0.525	89.5	75-125	2.65	20
Chromium	94.5		0.25	mg/kg	99.0	10.9	84.4	75-125	2.27	20
Lead	110	QM-05	0.25	mg/kg	99.0	43.7	66.9	75-125	0.304	20
Post Spike (9012129-PS1)		**Source: P901022-01**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Barium	57.8	QM-05		ug/kg	2.00	51.8	295	80-120		
Lead	53.0	QM-05		ug/kg	2.00	43.7	466	80-120		
Batch: 9012134										
Blank (9012134-BLK2)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Antimony	ND		0.25	mg/kg						
Arsenic	ND		0.25	mg/kg						
Barium	ND		0.25	mg/kg						
Beryllium	ND		0.25	mg/kg						
Cadmium	ND		0.25	mg/kg						
Chromium	ND		0.25	mg/kg						
Cobalt	ND		0.25	mg/kg						
Copper	ND		0.25	mg/kg						
Lead	ND		0.25	mg/kg						
Mercury	ND		0.025	mg/kg						
Molybdenum	ND		0.25	mg/kg						
Nickel	ND		0.25	mg/kg						
Selenium	ND		1.2	mg/kg						
Silver	ND		0.25	mg/kg						
Thallium	ND		0.25	mg/kg						
Vanadium	ND		0.25	mg/kg						
Zinc	ND		0.25	mg/kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals, Title 22 ICP-MS_ Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012134 (Continued)										
Duplicate (9012134-DUP2)		**Source: P901022-22**		Prepared: 01/21/2019 Analyzed: 01/24/2019						
Arsenic	3.54		1.2	mg/kg		2.98			17.2	20
Barium	36.8		1.2	mg/kg		34.4			6.87	20
Cadmium	0.307		1.2	mg/kg		0.293			4.52	20
Chromium	10.2		1.2	mg/kg		9.39			8.01	20
Lead	9.03		1.2	mg/kg		8.49			6.14	20
LCS (9012134-BS2)				Prepared: 01/21/2019 Analyzed: 01/24/2019						
Arsenic	94.9		0.25	mg/kg	100		94.9	80-120		
Barium	92.9		0.25	mg/kg	100		92.9	80-120		
Cadmium	96.1		0.25	mg/kg	100		96.1	80-120		
Chromium	107		0.25	mg/kg	100		107	80-120		
Lead	94.4		0.25	mg/kg	100		94.4	80-120		
Matrix Spike (9012134-MS2)		**Source: P901022-22**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Arsenic	147	QR-04	0.25	mg/kg	100	2.98	144	75-125		
Barium	205	QR-04	0.25	mg/kg	100	34.4	171	75-125		
Cadmium	141	QR-04	0.25	mg/kg	100	0.293	141	75-125		
Chromium	170	QR-04	0.25	mg/kg	100	9.39	160	75-125		
Lead	164	QR-04	0.25	mg/kg	100	8.49	155	75-125		
Matrix Spike Dup (9012134-MSD2)		**Source: P901022-22**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Arsenic	104	QM-07	0.25	mg/kg	100	2.98	101	75-125	34.3	20
Barium	136	QM-07	0.25	mg/kg	100	34.4	102	75-125	40.6	20
Cadmium	99.0	QM-07	0.25	mg/kg	100	0.293	98.7	75-125	35.2	20
Chromium	114	QM-07	0.25	mg/kg	100	9.39	105	75-125	39.0	20
Lead	111	QM-07	0.25	mg/kg	100	8.49	103	75-125	38.2	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260										
LCS (QC1210260LCS1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
1,2,4-Trichlorobenzene	1300		250	ug/Kg	2000	NA	65	43-111		
Pyrene	1500		250	ug/Kg	2000	NA	75	63-119		
Pentachlorophenol	1300		1200	ug/Kg	2000	NA	65	41-103		
4-Chloro-3-methylphenol	1600		250	ug/Kg	2000	NA	80	61-122		
1,4-Dichlorobenzene	1200		250	ug/Kg	2000	NA	60	30-116		
2,4,5-Trichlorophenol	1500		250	ug/Kg	2000	NA	75	57-125		
2,4-Dimethylphenol	1500		250	ug/Kg	2000	NA	75	50-112		
2-Chlorophenol	1400		250	ug/Kg	2000	NA	70	48-114		
3 and 4-Methylphenol (m and p-Cresol)	1600		400	ug/Kg	2000	NA	80	56-124		
Phenol	1400		250	ug/Kg	2000	NA	70	51-111		
4-Nitrophenol	1700		250	ug/Kg	2000	NA	85	54-126		
Acenaphthene	1400		250	ug/Kg	2000	NA	70	53-112		
Benzo(b)fluoranthene	1700		250	ug/Kg	2000	NA	85	61-125		
Chrysene	1500		250	ug/Kg	2000	NA	75	59-117		
N-Nitrosodi-n-propylamine (NDPA)	1600		250	ug/Kg	2000	NA	80	54-110		
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	NA	75	57-124		
Surrogate: p-Terphenyl (SUR)	1585.422			ug/Kg	2000	NA	79	33-155		
Surrogate: 2-Fluorobiphenyl (SUR)	1457.652			ug/Kg	2000	NA	73	41-125		
Surrogate: Phenol-d5 (SUR)	1560.604			ug/Kg	2000	NA	78	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1481.625			ug/Kg	2000	NA	74	27-125		
Surrogate: 2-Fluorophenol (SUR)	1371.266			ug/Kg	2000	NA	69	13-153		
Surrogate: 2,4,6-Tribromophenol (SUR)	1613.317			ug/Kg	2000	NA	81	34-143		
Method Blank (QC1210260MB1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
Phenanthrene	ND		250	ug/Kg		NA		-		
Phenol	ND		250	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		
Total Cresol	ND		400	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		
Dibenzofuran	ND		250	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260 (Continued)										
Method Blank (QC1210260MB1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
Hexachloroethane	ND		250	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		
Naphthalene	ND		250	ug/Kg		NA		-		
Nitrobenzene	ND		1200	ug/Kg		NA		-		
Fluorene	ND		250	ug/Kg		NA		-		
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
Chrysene	ND		250	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Benz(a)anthracene	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
Acenaphthylene	ND		250	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
Acenaphthene	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260 (Continued)										
Method Blank (QC1210260MB1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
4-Nitrophenol	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		
3-Nitroaniline	ND		250	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
Surrogate: Phenol-d5 (SUR)	1570.777			ug/Kg	2000	NA	79	10-110		
Surrogate: p-Terphenyl (SUR)	1555.128			ug/Kg	2000	NA	78	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	1521.013			ug/Kg	2000	NA	76	27-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1504.422			ug/Kg	2000	NA	75	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1429.486			ug/Kg	2000	NA	71	41-125		
Surrogate: 2-Fluorophenol (SUR)	1450.847			ug/Kg	2000	NA	73	13-153		
MS (QC1210260MS1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
1,2,4-Trichlorobenzene	1200		250	ug/Kg	2000	ND	60	35-93		
1,4-Dichlorobenzene	1000		250	ug/Kg	2000	ND	50	39-95		
2,4,5-Trichlorophenol	1400		250	ug/Kg	2000	ND	70	44-108		
2,4-Dimethylphenol	1300		250	ug/Kg	2000	ND	65	37-105		
2-Chlorophenol	1300		250	ug/Kg	2000	ND	65	42-102		
4-Nitrophenol	1600		250	ug/Kg	2000	ND	80	37-107		
3 and 4-Methylphenol (m and p-Cresol)	1400		400	ug/Kg	2000	ND	70	33-116		
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	ND	75	48-109		
Acenaphthene	1300		250	ug/Kg	2000	ND	65	57-99		
Benzo(b)fluoranthene	1500		250	ug/Kg	2000	ND	75	59-126		
Chrysene	1400		250	ug/Kg	2000	ND	70	68-120		
N-Nitrosodi-n-propylamine (NDPA)	1400		250	ug/Kg	2000	ND	70	41-127		
Phenol	1300		250	ug/Kg	2000	ND	65	46-116		
4-Chloro-3-methylphenol	1500		250	ug/Kg	2000	ND	75	33-120		
Pyrene	1500		250	ug/Kg	2000	ND	75	53-129		
Pentachlorophenol	1300		1200	ug/Kg	2000	ND	65	43-120		
Surrogate: 2,4,6-Tribromophenol (SUR)	1557.47			ug/Kg	2000	NA	78	34-143		
Surrogate: 2-Fluorophenol (SUR)	961.254			ug/Kg	2000	NA	48	13-153		
Surrogate: Phenol-d5 (SUR)	1182.169			ug/Kg	2000	NA	59	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	988.5			ug/Kg	2000	NA	49	27-125		
Surrogate: p-Terphenyl (SUR)	1504.131			ug/Kg	2000	NA	75	33-155		
Surrogate: 2-Fluorobiphenyl (SUR)	1051.419			ug/Kg	2000	NA	53	41-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260 (Continued)										
MSD (QC1210260MSD1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
Acenaphthene	1000	M	250	ug/Kg	2000	ND	50	57-99	26.1	30
Phenol	940	M	250	ug/Kg	2000	ND	47	46-116	32.1	30
Pentachlorophenol	1100		1200	ug/Kg	2000	ND	55	43-120	16.7	30
N-Nitrosodi-n-propylamine (NDPA)	1000	M	250	ug/Kg	2000	ND	50	41-127	33.3	30
Pyrene	1300		250	ug/Kg	2000	ND	65	53-129	14.3	30
Benzo(b)fluoranthene	1400		250	ug/Kg	2000	ND	70	59-126	6.9	30
2,4-Dinitrotoluene	1300		250	ug/Kg	2000	ND	65	48-109	14.3	30
4-Nitrophenol	1700		250	ug/Kg	2000	ND	85	37-107	6.1	30
4-Chloro-3-methylphenol	1200		250	ug/Kg	2000	ND	60	33-120	22.2	30
3 and 4-Methylphenol (m and p-Cresol)	1100		400	ug/Kg	2000	ND	55	33-116	24	30
2-Chlorophenol	910	M	250	ug/Kg	2000	ND	46	42-102	35.3	30
Chrysene	1200	M	250	ug/Kg	2000	ND	60	68-120	15.4	30
1,2,4-Trichlorobenzene	840	M	250	ug/Kg	2000	ND	42	35-93	35.3	30
1,4-Dichlorobenzene	760	M	250	ug/Kg	2000	ND	38	39-95	27.3	30
2,4,5-Trichlorophenol	1200		250	ug/Kg	2000	ND	60	44-108	15.4	30
2,4-Dimethylphenol	940	M	250	ug/Kg	2000	ND	47	37-105	32.1	30
Surrogate: Phenol-d5 (SUR)	977.058			ug/Kg	2000	NA	49	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	926.104			ug/Kg	2000	NA	46	27-125		
Surrogate: 2-Fluorophenol (SUR)	863.734			ug/Kg	2000	NA	43	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	922.741			ug/Kg	2000	NA	46	41-125		
Surrogate: p-Terphenyl (SUR)	1358.387			ug/Kg	2000	NA	68	33-155		
Surrogate: 2,4,6-Tribromophenol (SUR)	1376.049			ug/Kg	2000	NA	69	34-143		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0023										
Blank (B9A0023-BLK1)				Prepared & Analyzed: 01/23/2019						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		5.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0023 (Continued)										
Blank (B9A0023-BLK1)				Prepared & Analyzed: 01/23/2019						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		5.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		20	µg/Kg						
Methyl Methacrylate	ND		5.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		20	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	52			µg/Kg	50.0		104	60-140		
Surrogate: 4-Bromofluorobenzene	47			µg/Kg	50.0		94.1	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		102	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		97.8	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0023 (Continued)										
LCS (B9A0023-BS1)				Prepared & Analyzed: 01/23/2019						
Benzene	40		1.0	µg/Kg	40.0		101	70-130		
Bromobenzene	41		1.0	µg/Kg	40.0		103	70-130		
Bromodichloromethane	43		1.0	µg/Kg	40.0		108	70-130		
Bromoform	42		1.0	µg/Kg	40.0		104	70-130		
Chlorobenzene	40		1.0	µg/Kg	40.0		101	70-130		
Chloroethane	37		5.0	µg/Kg	40.0		93.7	70-130		
Chloroform	40		1.0	µg/Kg	40.0		101	70-130		
4-Chlorotoluene	41		1.0	µg/Kg	40.0		102	70-130		
Dibromomethane	42		1.0	µg/Kg	40.0		106	70-130		
1,2-Dichlorobenzene	41		1.0	µg/Kg	40.0		101	70-130		
1,1-Dichloroethene	42		1.0	µg/Kg	40.0		105	70-130		
1,2-Dichloropropane	41		1.0	µg/Kg	40.0		104	70-130		
2,2-Dichloropropane	42		1.0	µg/Kg	40.0		105	70-130		
1,1-Dichloropropene	40		1.0	µg/Kg	40.0		100	70-130		
Diethyl Ether	39		5.0	µg/Kg	40.0		96.8	70-130		
Diisopropyl Ether (DIPE)	40		1.0	µg/Kg	40.0		99.1	70-130		
Ethylbenzene	41		1.0	µg/Kg	40.0		103	70-130		
Hexachloro-1,3-Butadiene	39		1.0	µg/Kg	40.0		98.0	70-130		
Methylene Chloride	43		20	µg/Kg	40.0		108	70-130		
Methyl-t-Butyl Ether (MTBE)	40		1.0	µg/Kg	40.0		99.0	70-130		
Naphthalene	39		10	µg/Kg	40.0		97.4	70-130		
Styrene	43		1.0	µg/Kg	40.0		108	70-130		
tert-Butylbenzene	42		1.0	µg/Kg	40.0		104	70-130		
Tetrachloroethene	40		1.0	µg/Kg	40.0		100	70-130		
Toluene	40		1.0	µg/Kg	40.0		101	70-130		
1,2,3-Trichlorobenzene	41		1.0	µg/Kg	40.0		101	70-130		
Trichloroethene	40		1.0	µg/Kg	40.0		99.2	70-130		
1,3,5-Trimethylbenzene	44		1.0	µg/Kg	40.0		109	70-130		
Vinyl Chloride	36		1.0	µg/Kg	40.0		89.1	70-130		
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		103	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	48			µg/Kg	50.0		95.4	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		98.9	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0023 (Continued)										
LCS Dup (B9A0023-BSD1)				Prepared & Analyzed: 01/23/2019						
Benzene	40		1.0	µg/Kg	40.0		99.6	70-130	1.62	20
Bromobenzene	41		1.0	µg/Kg	40.0		102	70-130	1.14	20
Bromodichloromethane	43		1.0	µg/Kg	40.0		106	70-130	1.42	20
Bromoform	41		1.0	µg/Kg	40.0		102	70-130	2.04	20
Chlorobenzene	40		1.0	µg/Kg	40.0		99.3	70-130	1.67	20
Chloroethane	35		5.0	µg/Kg	40.0		86.7	70-130	7.73	20
Chloroform	40		1.0	µg/Kg	40.0		100	70-130	0.124	20
4-Chlorotoluene	40		1.0	µg/Kg	40.0		99.6	70-130	2.43	20
Dibromomethane	43		1.0	µg/Kg	40.0		107	70-130	0.942	20
1,2-Dichlorobenzene	39		1.0	µg/Kg	40.0		97.5	70-130	3.95	20
1,1-Dichloroethene	34		1.0	µg/Kg	40.0		83.9	70-130	22.3	20
1,2-Dichloropropane	41		1.0	µg/Kg	40.0		103	70-130	0.290	20
2,2-Dichloropropane	41		1.0	µg/Kg	40.0		102	70-130	2.80	20
1,1-Dichloropropene	39		1.0	µg/Kg	40.0		97.7	70-130	2.83	20
Diethyl Ether	35		5.0	µg/Kg	40.0		88.7	70-130	8.73	20
Diisopropyl Ether (DIPE)	40		1.0	µg/Kg	40.0		99.7	70-130	0.579	20
Ethylbenzene	40		1.0	µg/Kg	40.0		99.7	70-130	2.96	20
Hexachloro-1,3-Butadiene	37		1.0	µg/Kg	40.0		92.4	70-130	5.88	20
Methylene Chloride	43		20	µg/Kg	40.0		108	70-130	0.0463	20
Methyl-t-Butyl Ether (MTBE)	40		1.0	µg/Kg	40.0		101	70-130	1.73	20
Naphthalene	39		10	µg/Kg	40.0		97.8	70-130	0.435	20
Styrene	42		1.0	µg/Kg	40.0		105	70-130	2.87	20
tert-Butylbenzene	40		1.0	µg/Kg	40.0		101	70-130	3.56	20
Tetrachloroethene	39		1.0	µg/Kg	40.0		97.0	70-130	3.37	20
Toluene	39		1.0	µg/Kg	40.0		98.2	70-130	2.99	20
1,2,3-Trichlorobenzene	40		1.0	µg/Kg	40.0		99.2	70-130	2.14	20
Trichloroethene	39		1.0	µg/Kg	40.0		97.0	70-130	2.29	20
1,3,5-Trimethylbenzene	42		1.0	µg/Kg	40.0		106	70-130	3.04	20
Vinyl Chloride	34		1.0	µg/Kg	40.0		84.6	70-130	5.09	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	48			µg/Kg	50.0		95.9	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		98.5	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
B	Analyte was present in an associated method blank.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
QB-01	The method blank contains analyte at a concentration above the MRL; however, concentration is less than 10% of the sample result, which is negligible according to method criteria.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
QM-07	The spike recovery and or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR-04	The pecent recovery and/or RPD was outside acceptance criteria. Results accepted based upon percent recovery results in duplicate QC sample and the CCV and CCB results.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 4

PAL WO#: P901022

Client Name	Langan
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Neil Shukla/ Brad McCardell
Email	nshukla@langan.com
Phone	7146160163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: TPH 8015M	CrVI 7199	Total Metals 6020	VOCs 8260B	SVOCs, PAHs 8270C	Dioxins 1613
1	OS-11-0.5'	1/18/19	0814	S	1GJ		X	X			
2	OS-11-1'	1/18/19	0819	S	2GJ/ VOAs	X			X	X	
3	OS-11-2'	1/18/19	0821	S	1GJ		X	X			
4	OS-11-5'	1/18/19	0833	S	2GJ/ VOAs	X	X	X	X	X	
5	SW-1-0.5'		0945		2GJ		X	X			X
6	SW-1-2'		0949		2GJ		X	X			X
7	SW-1-C-5'		0953		2GJ		X	X			
8	SW-1-B-5'		0956		2GJ		X	X			
9	TL-4-0.5'		1048		1GJ		X	X			
10	TL-4-2'		1050		1GJ		X	X			

G-4372

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): **STD** 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: Yes / No

Type of EDD: EZEDD

Reciept Temp./ Initials: (Temp recorded is not corrected) 3.2°C MV

RELINQUISHED BY
Signature: Brad McCardell
Print: Brad McCardell
Company: Langan
DATE: 1/19/19
TIME: 12:20 pm

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 1/19/19
TIME: 1226

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901022

Client Name	Langan
Address	515 S. Flower St. Suite 2660 Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	7146160163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020
1	TL-4-5'	1/18/19	1053	S	1 J	X	X
2	VP-5-0.5'		1150		1 J	X	X
3	VP-5-2'		1152		1 J	X	X
4	VP-5-5'		1154		1 J	X	X
5	CKDSP5-S01-0.5'		1338		1 J		
6	CKDSP5-S01-2'		1340				
7	CKDSP5-S01-5'		1345				
8	CKDSP5-S02-0.5'		1350				
9	CKDSP5-S02-2'		1357				
10	CKDSP5-S02-5'		1400				

G-4373

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: (Yes) No

Type of EDD: EZEDD

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: [signature]
Print: Brad McCardell
Company: Langan
DATE: 1/18/19
TIME: 12:20 pm

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 1/19/19
TIME: 12:26

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901022

Client Name / Address	Langan, 515 S Flower St, Suite 2860, Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	7146160163
Project Name/Number	
P.O. Number	72013502
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020
1	CKDSPS-S05-0.5'	1/18/19	1408	S	1 J	X	X
2	CKDSPS-S05-2'		1412		1 J	X	X
3	CKDSPS-S05-5'		1415		1 J	X	X
4	CKDSPS-S04-0.5'		1423		1 J	X	X
5	CKDSPS-S04-2'		1425		1 J	X	X
6	CKDSPS-S04-5'		1428		1 J	X	X
7	CKDSPS-S03-0.5'		1435			X	X
8	CKDSPS-S03-2'		1437			X	X
9	CKDSPS-S03-5'		1442			X	X
10	WC-2-0.5'		1402			X	X

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD 5 day) RUSH 24 48 72

EDD Required - Circle one: (Yes) No

Type of EDD: EZEDD

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: [signature]
Print: Brad McCardell
Company: Langan
DATE: 1/18/19
TIME: 12:20 pm

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 1/19/19
TIME: 1226

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-4374

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901022

Client Name	Langan
Address	515 S Flower St. Suite 2260 Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	REQUESTED ANALYSIS: Total Metals 6020
1	WC-2-2'	1/18/19	1500	S	1J	X	X
2	WC-2-5'	"	1504	"	"	"	"
3	WC-1-0.5'	"	1516	"	"	"	"
4	WC-1-2'	"	1519	"	"	"	"
5	WC-1-5'-	"	1525	"	1J	"	"
6							
7							
8							
9							
10							

G-4375

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: (Yes) No

Type of EDD: EZEDD

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: [signature]
Print: Brad McCardell
Company: Langan
DATE: 1/19/19
TIME: 12:20pm

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 1/19/19
TIME: 1220

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P901022

Cooler 1 OF 1

Client Langan

Date Received: 1/19/19

Courier ◯ CLIENT ◯ PALI ◯ OTHER _____ ◯ FEDEX ◯ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	◯ Blank ⊗ Sample	3.2	0.0	3.2	TM-12

⊗ WET ICE ◯ BLUE ICE ◯ AMBIENT ◯ OTHER _____

◯ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ◯ Present and Intact ◯ Present and **NOT** Intact ◯ Seals signed and dated ⊗ Not Present

Sample Seal ◯ Present and Intact ◯ Present and **NOT** Intact ◯ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ◯ NOT INCLUDED

⊗ Complete ◯ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ◯ LIQUID ◯ AIR ◯ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MJ	1/21/19		

T190154

SUBCONTRACT CHAIN OF CUSTODY

Performance Analytical Laboratories, Inc.

1.3

Work Order ID: P901022

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Sun Star Laboratories, Inc.
25712 Commercentre Drive
Lake Forest, CA 92630
Phone :(949) 297-5020
Fax: .

Sample P901022-02 was included, waiting to hear from client.

Analysis	Due	Comments
01 Sample ID: OS-11-0.5' **Matrix:Solid** **Sampled: 01/18/2019 08:14**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
02 Sample ID: OS-11-2' **Matrix:Solid** **Sampled: 01/18/2019 08:21**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
03 Sample ID: OS-11-5' **Matrix:Solid** **Sampled: 01/18/2019 08:33**		
S_Mercury 7471	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (F)		
04 Sample ID: SW-1-0.5' **Matrix:Solid** **Sampled: 01/18/2019 09:45**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
05 Sample ID: SW-1-2' **Matrix:Solid** **Sampled: 01/18/2019 09:49**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

Released By	Date	Time	Received By	Date	Time
[signature]	10/21/19	1052	[signature]	01 10/21/19	10:57
[signature]	10/21/19	11:37	[signature]	1.21.19	11:37

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901022

Analysis	Due	Comments

06 **Sample ID: SW-1-C-5'** **Matrix:Solid** **Sampled: 01/18/2019 09:53**

S_Hexavalent Chromium 7199	01/28/2019 15:00
S_Metals 6010B Title 22	01/28/2019 15:00
Containers Supplied:	
Glass Jar, 4 oz (A)	

07 **Sample ID: SW-1-B-5'** **Matrix:Solid** **Sampled: 01/18/2019 09:56**

S_Hexavalent Chromium 7199	01/28/2019 15:00
S_Metals 6010B Title 22	01/28/2019 15:00
Containers Supplied:	
Glass Jar, 4 oz (A)	

08 **Sample ID: TL-4-0.5'** **Matrix:Solid** **Sampled: 01/18/2019 10:48**

S_Hexavalent Chromium 7199	01/28/2019 15:00
S_Metals 6010B Title 22	01/28/2019 15:00
Containers Supplied:	
Glass Jar, 4 oz (A)	

09 **Sample ID: TL-4-2'** **Matrix:Solid** **Sampled: 01/18/2019 10:50**

S_Hexavalent Chromium 7199	01/28/2019 15:00
S_Metals 6010B Title 22	01/28/2019 15:00
Containers Supplied:	
Glass Jar, 4 oz (A)	

10 **Sample ID: TL-4-5'** **Matrix:Solid** **Sampled: 01/18/2019 10:53**

S_Hexavalent Chromium 7199	01/28/2019 15:00
S_Metals 6010B Title 22	01/28/2019 15:00
Containers Supplied:	
Glass Jar, 4 oz (A)	

11 **Sample ID: VP-5-0.5'** **Matrix:Solid** **Sampled: 01/18/2019 11:50**

S_Hexavalent Chromium 7199	01/28/2019 15:00
S_Metals 6010B Title 22	01/28/2019 15:00
Containers Supplied:	
Glass Jar, 4 oz (A)	

Released By	Date	Time	Received By	Date	Time
[signature]	10/21/19	1052	[signature]	10/21/19	10:53
[signature]	10/21/19	11:37	[signature]	1-21-19	11:37

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901022

Analysis	Due	Comments
2 Sample ID: VP-5-2' **Matrix:Solid** **Sampled: 01/18/2019 11:52**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
13 Sample ID: VP-5-5' **Matrix:Solid** **Sampled: 01/18/2019 11:54**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
14 Sample ID: CKDSP5-S01-0.5' **Matrix:Solid** **Sampled: 01/18/2019 13:38**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
15 Sample ID: CKDSP5-S01-2' **Matrix:Solid** **Sampled: 01/18/2019 13:40**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
16 Sample ID: CKDSP5-S01-5' **Matrix:Solid** **Sampled: 01/18/2019 13:45**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
17 Sample ID: CKDSP5-S02-0.5' **Matrix:Solid** **Sampled: 01/18/2019 13:50**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

Released By	Date	Time	Received By	Date	Time
[signature]	10/21/19	1052	[signature]	10/21/19	10:53
[signature]	10/21/19	11:37	[signature]	1-21-19	11:37

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901022

Analysis	Due	Comments
Sample ID: CKDSP5-S02-2' **Matrix:Solid**	**Sampled: 01/18/2019 13:57**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S02-5' **Matrix:Solid**	**Sampled: 01/18/2019 14:00**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S05-0.5' **Matrix:Solid**	**Sampled: 01/18/2019 14:08**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S05-2' **Matrix:Solid**	**Sampled: 01/18/2019 14:12**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S05-5' **Matrix:Solid**	**Sampled: 01/18/2019 14:15**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S04-0.5' **Matrix:Solid**	**Sampled: 01/18/2019 14:23**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

Released By	Date	Time	Received By	Date	Time
	10/21/19	1052		01 10/21/19	10:53
	10/21/19	11:37		1.21.19	11:37

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901022

Analysis	Due	Comments
Sample ID: CKDSP5-S04-2' **Matrix:Solid**	**Sampled: 01/18/2019 14:25**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S04-5' **Matrix:Solid**	**Sampled: 01/18/2019 14:28**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S03-0.5' **Matrix:Solid**	**Sampled: 01/18/2019 14:35**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S03-2' **Matrix:Solid**	**Sampled: 01/18/2019 14:37**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S03-5' **Matrix:Solid**	**Sampled: 01/18/2019 14:42**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: WC-2-0.5' **Matrix:Solid**	**Sampled: 01/18/2019 14:02**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

Released By	Date	Time	Received By	Date	Time
[signature]	10/21/19	1052	[signature]	10/21/19	10:53
[signature]	10/21/19	11:37	[signature]	1.21.19	11:37

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901022

Analysis		Due	Comments
Sample ID: WC-2-2'	**Matrix:Solid**	**Sampled: 01/18/2019 15:00**	
S_Hexavalent Chromium 7199		01/28/2019 15:00	
S_Metals 6010B Title 22		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
Sample ID: WC-2-5'	**Matrix:Solid**	**Sampled: 01/18/2019 15:04**	
S_Hexavalent Chromium 7199		01/28/2019 15:00	
S_Metals 6010B Title 22		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
Sample ID: WC-1-0.5'	**Matrix:Solid**	**Sampled: 01/18/2019 15:16**	
S_Hexavalent Chromium 7199		01/28/2019 15:00	
S_Metals 6010B Title 22		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
Sample ID: WC-1-2'	**Matrix:Solid**	**Sampled: 01/18/2019 15:18**	
S_Hexavalent Chromium 7199		01/28/2019 15:00	
S_Metals 6010B Title 22		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
Sample ID: WC-1-5'	**Matrix:Solid**	**Sampled: 01/18/2019 15:25**	
S_Hexavalent Chromium 7199		01/28/2019 15:00	
S_Metals 6010B Title 22		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
	10/21/19	1052		10/21/19	10:53
	10/21/19	11:39		1-21-19	11:37

SunStar Laboratories — Celebrating 20 Years!

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T190154

Client Name: Performance Analytical Project: P901022

Delivered by: ☐ Client ☒ SunStar Courier ☐ GSO ☐ FedEx ☐ Other

If Courier, Received by: ali Date/Time Courier Received: 01/21/19 10:53

Lab Received by: Sunny Date/Time Lab Received: 01/21/19 11:37

Total number of coolers received:

Temperature: Cooler #1	0.1 °C +/- the CF (1.2°C)	=	1.3	°C corrected temperature
Temperature: Cooler #2	°C +/- the CF (1.2°C)	=		°C corrected temperature
Temperature: Cooler #3	°C +/- the CF (1.2°C)	=		°C corrected temperature

Temperature criteria = ≤ 6°C (no frozen containers) Within criteria? ☑ **Yes** ☐ **No**

If NO:

Samples received on ice? ☐ Yes ☐ **No → Complete Non-Conformance Sheet**

If on ice, samples received same day collected? ☐ Yes → Acceptable ☐ **No → Complete Non-Conformance Sheet**

Custody seals intact on cooler/sample	☐ Yes	☐ No*	☑ N/A
Sample containers intact	☑ Yes	☐ No*	
Sample labels match Chain of Custody IDs	☑ Yes	☐ No*	
Total number of containers received match COC	☑ Yes	☐ No*	
Proper containers received for analyses requested on COC	☑ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☑ N/A
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times	☑ **Yes**	☐ **No***	

* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date: AH 01/21/19

Comments:

(949) 297-5020 ■ www.sunstarlabs.com ■ 25712 Commercentre Drive ■ Lake Forest, CA 92630

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

411366

Work Order ID: P901022

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis		Due	Comments
Sample ID: OS-11-1'	**Matrix:Solid**	**Sampled: 01/18/2019 08:19**	
S_PAH 8270 SIM		01/28/2019 15:00	
S_SVOA 8270C		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (E)			
Sample ID: OS-11-5'	**Matrix:Solid**	**Sampled: 01/18/2019 08:33**	
S_PAH 8270 SIM		01/28/2019 15:00	
S_SVOA 8270C		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (E)			
Sample ID: SW-1-0.5'	**Matrix:Solid**	**Sampled: 01/18/2019 09:45**	
S_Dioxin (17 Congeners)		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (B)			
Sample ID: SW-1-2'	**Matrix:Solid**	**Sampled: 01/18/2019 09:49**	
S_Dioxin (17 Congeners)		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (B)			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	1/21/19	1019	Enthalpy	1/21/19	1020
Kelvin Day	1/21/19	1447		01/21/19	1447

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: P901022

Date Received: 1/21/19 Sampler's Name Present: ☐ Yes ☒ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 2.6 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.7 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 01/21/19

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

Enthalpy Analytical Field Technician Request Form

Version # 2.7
Effective 9/10/15

Client Info

Client Name:	Performance Analytical Labs
Address:	2702 E. Willow Street
City:	Signal Hill
Ordered By:	Marycarol
Client Project Manager:	Marycarol Valenzuela
Phone:	(310) 809-1041
Email:	

Site Info

Address:	See above
City:	
Site Contact:	
Phone:	
2nd Site Contact:	
Phone:	

Request Completed By

Enthalpy Contact:	RKC
Date / Time:	01/21/19

Date(s) Needed:	01/21/19				
Before:		After:		Between:	Any
Assigned Field Technician:					
Arrival Time:		Leave Time:			
Pick Up	✓	**Delivery**			

Micro Sampling

1st Day:		Sampling Time:		# of samples:	
2nd Day:		Sampling Time:		# of samples:	
Verbal Notification required (ASAP):					
Primary Notification Contact Info:					
Secondary Notification Contact Info:					
Analysis:					

Water/Soil Sampling

ISCO:		Soil:		Water:	
Meter readings (ISCO):		# of samples:			
Analysis:					

Sampling Notes

TAT:		Return ASAP:		Return by:	

Comments/Instructions:
- p/u samples

Enthalpy Coordinator Use Only		Enthalpy PM Use Only	
Request Approved:		☑ Emailed ☐ Phoned ☐ No Notification	
Alternate Date/Time proposed:		Client contact notified:	Marycarol
Request Denied:			
Name / Signature:		Name / Signature:	RKC
Date/Time:		Date/Time:	01/21/19

Please initial and date any changes.

Performance Analytical Laboratories, Inc.

ELAP 2960

February 05, 2019

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : DTSC Riverside

Work Order: P901033

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 1/29/2019. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 36

Qualifiers and Definitions 45

Chain of Custody PDFs 46

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P901033-01	OS-2-0.5'		Solid	01/28/2019	01/29/2019
P901033-02	OS-2-1'		Solid	01/28/2019	01/29/2019
P901033-03	OS-2-2'		Solid	01/28/2019	01/29/2019
P901033-04	OS-2-5'		Solid	01/28/2019	01/29/2019
P901033-05	OS-2-10'		Solid	01/28/2019	01/29/2019
P901033-06	OS-2-20'		Solid	01/28/2019	01/29/2019
P901033-07	OS-1-0.5'		Solid	01/28/2019	01/29/2019
P901033-08	OS-1-1'		Solid	01/28/2019	01/29/2019
P901033-09	OS-1-2'		Solid	01/28/2019	01/29/2019
P901033-10	OS-1-5'		Solid	01/28/2019	01/29/2019
P901033-11	OS-1-10'		Solid	01/28/2019	01/29/2019
P901033-12	OS-1-20'		Solid	01/28/2019	01/29/2019

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-0.5' **P901033-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9013045)							
Hexavalent Chromium	**560**	ug/kg	1	200	01/31/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9013041)							
Mercury	**30**	mg/kg	50	5.0	01/31/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012913)							
Antimony	ND	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Arsenic	**2.7**	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Barium	**94**	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Cadmium	**1.2**	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Chromium	**39**	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Cobalt	**5.7**	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Copper	**24**	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Lead	**65**	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Mercury	ND	mg/kg	5	0.12	02/05/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Nickel	**11**	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Selenium	ND	mg/kg	5	6.2	02/05/2019	6020 ICP-MS	
Silver	**1.2**	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Thallium	ND	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Vanadium	**21**	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	
Zinc	**120**	mg/kg	5	1.2	02/05/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-1' **P901033-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0031)							
C7-C8	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C28-C33	**28.1**	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C34-C40	**24.6**	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	84.1%			60-140	02/01/2019	EPA 8015B (M)	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027)							
Acetone	ND	µg/Kg	1	20	01/29/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	51	01/29/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	01/29/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-1' (Continued) **P901033-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)							
4-Chlorotoluene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	20	01/29/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	01/29/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-1' (Continued) **P901033-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)							
Naphthalene	ND	µg/Kg	1	10	01/29/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	20	01/29/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	01/29/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	20	01/29/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.0	01/29/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.0	01/29/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	105%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	93.9%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	109%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	97.4%			60-140	01/29/2019	EPA 8260B/5035	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-2' **P901033-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9013045)							
Hexavalent Chromium	ND	ug/kg	1	200	01/31/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9013041)							
Mercury	**1.7**	mg/kg	5	0.50	01/31/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012913)							
Antimony	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Arsenic	**4.4**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Barium	**70**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Beryllium	**0.27**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cadmium	**0.49**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Chromium	**13**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cobalt	**5.8**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Copper	**15**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Lead	**14**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	02/05/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Nickel	**9.7**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	02/05/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Vanadium	**22**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Zinc	**52**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-5' **P901033-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0031)							
C7-C8	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	87.1%			60-140	01/31/2019	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: 9013045)							
Hexavalent Chromium	**200**	ug/kg	1	200	01/31/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9013041)							
Mercury	**0.33**	mg/kg	1	0.10	01/30/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012913)							
Antimony	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Arsenic	**4.7**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Barium	**41**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Chromium	**14**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cobalt	**4.2**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Copper	**14**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Lead	**5.0**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	02/05/2019	6020 ICP-MS	
Molybdenum	**1.3**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Nickel	**7.5**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-5' (Continued) **P901033-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals by ICP-MS_Subcontract (Batch ID: 9012913) (Continued)							
Selenium	ND	mg/kg	1	1.2	02/05/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Vanadium	**18**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Zinc	**28**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027)							
Acetone	ND	µg/Kg	1	20	01/29/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	51	01/29/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	01/29/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-5' (Continued) **P901033-04 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	20	01/29/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	01/29/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	10	01/29/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	20	01/29/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	26	01/29/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-5' (Continued) **P901033-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)							
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	20	01/29/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.0	01/29/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.1	01/29/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	105%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	94.7%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	111%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	95.4%			60-140	01/29/2019	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-10' **P901033-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0031)							
C7-C8	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	90.0%			60-140	01/31/2019	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: 9013045)							
Hexavalent Chromium	ND	ug/kg	1	200	01/31/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9013041)							
Mercury	**1.1**	mg/kg	2	0.20	01/31/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012913)							
Antimony	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Arsenic	**7.2**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Barium	**73**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Beryllium	**0.32**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Chromium	**26**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cobalt	**6.6**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Copper	**17**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Lead	**15**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	02/05/2019	6020 ICP-MS	
Molybdenum	**2.5**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Nickel	**12**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-10' (Continued) **P901033-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals by ICP-MS_Subcontract (Batch ID: 9012913) (Continued)							
Selenium	ND	mg/kg	1	1.2	02/05/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Vanadium	**27**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Zinc	**55**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027)							
Acetone	ND	µg/Kg	1	19	01/29/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	48	01/29/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.8	01/29/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	19	01/29/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.8	01/29/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.8	01/29/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.8	01/29/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	4.8	01/29/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-10' (Continued) **P901033-05 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,4-Dichlorobenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.8	01/29/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	4.8	01/29/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.8	01/29/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.8	01/29/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	19	01/29/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	4.8	01/29/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	19	01/29/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	9.7	01/29/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	19	01/29/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	24	01/29/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-10' (Continued) **P901033-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)							
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	19	01/29/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.97	01/29/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.9	01/29/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.9	01/29/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	106%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	95.4%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	112%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	100%			60-140	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-20' **P901033-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0031)							
C7-C8	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	97.0%			60-140	01/31/2019	EPA 8015B (M)	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027)							
Acetone	ND	µg/Kg	1	26	01/29/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	65	01/29/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	6.5	01/29/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	26	01/29/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	6.5	01/29/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	6.5	01/29/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	6.5	01/29/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-20' (Continued) **P901033-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)							
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	6.5	01/29/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	6.5	01/29/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	6.5	01/29/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	6.5	01/29/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	6.5	01/29/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	26	01/29/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	6.5	01/29/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	26	01/29/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	13	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-2-20' (Continued) **P901033-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)							
Propionitrile	ND	µg/Kg	1	26	01/29/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	33	01/29/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	26	01/29/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.3	01/29/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.6	01/29/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.9	01/29/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	107%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	95.1%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	113%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	98.7%			60-140	01/29/2019	EPA 8260B/5035	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-0.5' **P901033-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9013045)							
Hexavalent Chromium	**380**	ug/kg	1	200	01/31/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9013041)							
Mercury	**11**	mg/kg	20	2.0	01/31/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012913)							
Antimony	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Arsenic	**5.6**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Barium	**97**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Beryllium	**0.32**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cadmium	**1.2**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Chromium	**30**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cobalt	**6.5**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Copper	**19**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Lead	**29**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	02/05/2019	6020 ICP-MS	
Molybdenum	**0.28**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Nickel	**13**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	02/05/2019	6020 ICP-MS	
Silver	**0.49**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Vanadium	**28**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Zinc	**85**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-1' **P901033-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0031)							
C7-C8	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	88.9%			60-140	02/01/2019	EPA 8015B (M)	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027)							
Acetone	**110**	µg/Kg	1	32	01/29/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	79	01/29/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Benzene	**14**	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	7.9	01/29/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	32	01/29/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	7.9	01/29/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	7.9	01/29/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	7.9	01/29/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-1' (Continued) **P901033-08 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
4-Chlorotoluene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	7.9	01/29/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	7.9	01/29/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Ethylbenzene	**3.6**	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	7.9	01/29/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	7.9	01/29/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	7.9	01/29/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	32	01/29/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	7.9	01/29/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	32	01/29/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-1' (Continued) **P901033-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)							
Naphthalene	ND	µg/Kg	1	16	01/29/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	32	01/29/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	40	01/29/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	32	01/29/2019	EPA 8260B/5035	
Toluene	**17**	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
o-Xylene	**2.2**	µg/Kg	1	1.6	01/29/2019	EPA 8260B/5035	
p/m-Xylene	**5.9**	µg/Kg	1	3.2	01/29/2019	EPA 8260B/5035	
Total Xylenes	**8.1**	µg/Kg	1	4.7	01/29/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	109%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	93.5%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	116%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	96.1%			60-140	01/29/2019	EPA 8260B/5035	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-2' **P901033-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9013045)							
Hexavalent Chromium	**770**	ug/kg	1	200	01/31/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9013041)							
Mercury	**8.0**	mg/kg	10	1.0	01/31/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012913)							
Antimony	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Arsenic	**7.0**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Barium	**100**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Beryllium	**0.30**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cadmium	**1.4**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Chromium	**51**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cobalt	**6.3**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Copper	**19**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Lead	**32**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	02/05/2019	6020 ICP-MS	
Molybdenum	**0.42**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Nickel	**13**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	02/05/2019	6020 ICP-MS	
Silver	**0.47**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Vanadium	**27**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Zinc	**77**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-5' **P901033-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0031)							
C7-C8	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	90.0%			60-140	01/31/2019	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: 9013045)							
Hexavalent Chromium	ND	ug/kg	1	200	01/31/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9013041)							
Mercury	**0.14**	mg/kg	1	0.10	01/30/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012913)							
Antimony	**0.43**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Arsenic	**4.6**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Barium	**150**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Beryllium	**0.54**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cadmium	**0.33**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Chromium	**18**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cobalt	**9.1**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Copper	**24**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Lead	**78**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	02/05/2019	6020 ICP-MS	
Molybdenum	**0.83**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-5' (Continued) **P901033-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals by ICP-MS_Subcontract (Batch ID: 9012913) (Continued)							
Nickel	**12**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	02/05/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Vanadium	**41**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Zinc	**100**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027)							
Acetone	ND	µg/Kg	1	21	01/29/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	51	01/29/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	21	01/29/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-5' (Continued) **P901033-10 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	21	01/29/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	5.1	01/29/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	21	01/29/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	10	01/29/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	21	01/29/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	26	01/29/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-5' (Continued) **P901033-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)							
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	21	01/29/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.0	01/29/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.1	01/29/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.1	01/29/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	105%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	99.4%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	113%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	96.7%			60-140	01/29/2019	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-10' **P901033-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0031)							
C7-C8	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	92.0%			60-140	01/31/2019	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: 9013045)							
Hexavalent Chromium	ND	ug/kg	1	200	01/31/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9013041)							
Mercury	ND	mg/kg	1	0.10	01/30/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012913)							
Antimony	**0.34**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Arsenic	**3.9**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Barium	**180**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Beryllium	**0.66**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Chromium	**19**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Cobalt	**11**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Copper	**18**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Lead	**8.4**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	02/05/2019	6020 ICP-MS	
Molybdenum	**1.4**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Nickel	**14**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-10' (Continued) **P901033-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals by ICP-MS_Subcontract (Batch ID: 9012913) (Continued)							
Selenium	ND	mg/kg	1	1.2	02/05/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Vanadium	**49**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Zinc	**48**	mg/kg	1	0.25	02/05/2019	6020 ICP-MS	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027)							
Acetone	ND	µg/Kg	1	27	01/29/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	69	01/29/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	6.9	01/29/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	27	01/29/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	6.9	01/29/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	6.9	01/29/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	6.9	01/29/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	6.9	01/29/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-10' (Continued) **P901033-11 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,4-Dichlorobenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	6.9	01/29/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	6.9	01/29/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	6.9	01/29/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	6.9	01/29/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	27	01/29/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	6.9	01/29/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	27	01/29/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	14	01/29/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	27	01/29/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	34	01/29/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-10' (Continued) **P901033-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)							
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	27	01/29/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.4	01/29/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.7	01/29/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	4.1	01/29/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	107%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	96.4%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	112%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	99.1%			60-140	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-20' **P901033-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0031)							
C7-C8	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/31/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	87.3%			60-140	01/31/2019	EPA 8015B (M)	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027)							
Acetone	ND	µg/Kg	1	21	01/29/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	53	01/29/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	5.3	01/29/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	21	01/29/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	5.3	01/29/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	5.3	01/29/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	5.3	01/29/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-20' (Continued) **P901033-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)							
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.3	01/29/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	5.3	01/29/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	5.3	01/29/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	5.3	01/29/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	5.3	01/29/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	21	01/29/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	5.3	01/29/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	21	01/29/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	11	01/29/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-1-20' (Continued) **P901033-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0027) (Continued)							
Propionitrile	ND	µg/Kg	1	21	01/29/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	26	01/29/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	21	01/29/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.1	01/29/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.1	01/29/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.2	01/29/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	107%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	94.8%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	112%			60-140	01/29/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	99.1%			60-140	01/29/2019	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0031										
Blank (B9A0031-BLK1)				Prepared: 01/30/2019 Analyzed: 01/31/2019						
C7-C8	ND		10.0	mg/kg						
C9-C10	ND		10.0	mg/kg						
C11-C12	ND		10.0	mg/kg						
C13-C14	ND		10.0	mg/kg						
C15-C16	ND		10.0	mg/kg						
C17-C18	ND		10.0	mg/kg						
C19-C20	ND		10.0	mg/kg						
C21-C22	ND		10.0	mg/kg						
C23-C24	ND		10.0	mg/kg						
C25-C27	ND		10.0	mg/kg						
C28-C33	ND		10.0	mg/kg						
C34-C40	ND		10.0	mg/kg						
Surrogate: n-Octacosane (c28)	1.76			mg/kg	2.04		86.5	60-140		
LCS (B9A0031-BS1)				Prepared: 01/30/2019 Analyzed: 01/31/2019						
Diesel	40.5		10.0	mg/kg	50.0		81.0	70-130		
Surrogate: n-Octacosane (c28)	2.05			mg/kg	2.04		101	60-140		
LCS Dup (B9A0031-BSD1)				Prepared: 01/30/2019 Analyzed: 01/31/2019						
Diesel	41.3		10.0	mg/kg	50.0		82.6	70-130	1.92	20
Surrogate: n-Octacosane (c28)	2.05			mg/kg	2.04		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9013045										
Blank (9013045-BLK1)				Prepared: 01/30/2019 Analyzed: 01/31/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9013045-BS1)				Prepared: 01/30/2019 Analyzed: 01/31/2019						
Hexavalent Chromium	10100		200	ug/kg	10000		101	80-120		
Matrix Spike (9013045-MS1)		**Source: P901033-01**		Prepared: 01/30/2019 Analyzed: 01/31/2019						
Hexavalent Chromium	9300		200	ug/kg	9690	562	90.2	75-125		
Matrix Spike Dup (9013045-MSD1)		**Source: P901033-01**		Prepared: 01/30/2019 Analyzed: 01/31/2019						
Hexavalent Chromium	9940		200	ug/kg	9920	562	94.6	75-125	6.70	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9013041										
Blank (9013041-BLK1)				Prepared & Analyzed: 01/30/2019						
Mercury	ND		0.10	mg/kg						
LCS (9013041-BS1)				Prepared & Analyzed: 01/30/2019						
Mercury	0.357		0.10	mg/kg	0.417		85.8	80-120		
Matrix Spike (9013041-MS1)		**Source: P901033-01**		Prepared: 01/30/2019 Analyzed: 01/31/2019						
Mercury	34.3	QM-07	5.0	mg/kg	0.403	30.2	1000	75-125		
Matrix Spike Dup (9013041-MSD1)		**Source: P901033-01**		Prepared: 01/30/2019 Analyzed: 01/31/2019						
Mercury	27.1	QM-07	5.0	mg/kg	0.403	30.2	0	75-125	23.4	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals by ICP-MS_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012913										
Blank (9012913-BLK1)				Prepared: 01/29/2019 Analyzed: 02/05/2019						
Antimony	ND		0.25	mg/kg						
Arsenic	ND		0.25	mg/kg						
Barium	ND		0.25	mg/kg						
Beryllium	ND		0.25	mg/kg						
Cadmium	ND		0.25	mg/kg						
Chromium	ND		0.25	mg/kg						
Cobalt	ND		0.25	mg/kg						
Copper	ND		0.25	mg/kg						
Lead	ND		0.25	mg/kg						
Mercury	ND		0.025	mg/kg						
Molybdenum	ND		0.25	mg/kg						
Nickel	ND		0.25	mg/kg						
Selenium	ND		1.2	mg/kg						
Silver	ND		0.25	mg/kg						
Thallium	ND		0.25	mg/kg						
Vanadium	ND		0.25	mg/kg						
Zinc	ND		0.25	mg/kg						
Duplicate (9012913-DUP1)		**Source: T190223-01**		Prepared: 01/29/2019 Analyzed: 02/05/2019						
Barium	183	QM-07	1.2	mg/kg		139			27.7	20
LCS (9012913-BS1)				Prepared: 01/29/2019 Analyzed: 02/05/2019						
Arsenic	28.7		0.25	mg/kg	25.0		115	80-120		
Barium	25.5		0.25	mg/kg	25.0		102	80-120		
Cadmium	29.5		0.25	mg/kg	25.0		118	80-120		
Chromium	25.7		0.25	mg/kg	25.0		103	80-120		
Lead	27.6		0.25	mg/kg	25.0		110	80-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Metals by ICP-MS_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012913 (Continued)										
Matrix Spike (9012913-MS2)		**Source: T190213-01**			Prepared: 01/29/2019 Analyzed: 02/05/2019					
Arsenic	35.8	QM-05	0.25	mg/kg	25.0	3.53	129	75-125		
Arsenic	32.0		0.25	mg/kg	25.0	2.32	119	75-125		
Barium	229	QM-05	0.25	mg/kg	25.0	174	222	75-125		
Barium	180	QM-07	0.25	mg/kg	25.0	139	165	75-125		
Cadmium	33.9	QM-05	0.25	mg/kg	25.0	0.463	134	75-125		
Cadmium	31.9	QR-04	0.25	mg/kg	25.0	0.165	127	75-125		
Chromium	53.9	QM-05	0.25	mg/kg	25.0	19.0	140	75-125		
Chromium	73.5		0.25	mg/kg	25.0	47.1	106	75-125		
Lead	76.2	QM-05	0.25	mg/kg	25.0	32.9	174	75-125		
Lead	38.1		0.25	mg/kg	25.0	7.36	123	75-125		
Matrix Spike Dup (9012913-MSD1)		**Source: T190223-01**			Prepared: 01/29/2019 Analyzed: 02/05/2019					
Arsenic	26.9		0.25	mg/kg	25.0	2.32	98.3	75-125	17.2	20
Barium	156	QM-07	0.25	mg/kg	25.0	139	70.5	75-125	14.1	20
Cadmium	27.2		0.25	mg/kg	25.0	0.165	108	75-125	16.0	20
Chromium	61.6	QR-04	0.25	mg/kg	25.0	47.1	58.1	75-125	17.7	20
Lead	31.3		0.25	mg/kg	25.0	7.36	95.8	75-125	19.6	20
Post Spike (9012913-PS1)		**Source: T190223-01**			Prepared: 01/29/2019 Analyzed: 02/05/2019					
Barium	151	QM-07		ug/kg	25.0	139	48.5	80-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0027										
Blank (B9A0027-BLK1)				Prepared & Analyzed: 01/29/2019						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		5.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0027 (Continued)										
Blank (B9A0027-BLK1)				Prepared & Analyzed: 01/29/2019						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		5.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		20	µg/Kg						
Methyl Methacrylate	ND		5.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		20	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	48			µg/Kg	50.0		95.0	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		98.2	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		97.6	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0027 (Continued)										
LCS (B9A0027-BS1)				Prepared & Analyzed: 01/29/2019						
Benzene	41		1.0	µg/Kg	40.0		103	70-130		
Bromobenzene	41		1.0	µg/Kg	40.0		103	70-130		
Bromodichloromethane	44		1.0	µg/Kg	40.0		110	70-130		
Bromoform	44		1.0	µg/Kg	40.0		109	70-130		
Chlorobenzene	41		1.0	µg/Kg	40.0		103	70-130		
Chloroethane	39		5.0	µg/Kg	40.0		98.3	70-130		
Chloroform	41		1.0	µg/Kg	40.0		103	70-130		
4-Chlorotoluene	41		1.0	µg/Kg	40.0		104	70-130		
Dibromomethane	43		1.0	µg/Kg	40.0		109	70-130		
1,2-Dichlorobenzene	40		1.0	µg/Kg	40.0		101	70-130		
1,1-Dichloroethene	37		1.0	µg/Kg	40.0		93.5	70-130		
1,2-Dichloropropane	43		1.0	µg/Kg	40.0		107	70-130		
2,2-Dichloropropane	43		1.0	µg/Kg	40.0		107	70-130		
1,1-Dichloropropene	41		1.0	µg/Kg	40.0		102	70-130		
Diethyl Ether	36		5.0	µg/Kg	40.0		90.5	70-130		
Diisopropyl Ether (DIPE)	41		1.0	µg/Kg	40.0		103	70-130		
Ethylbenzene	41		1.0	µg/Kg	40.0		103	70-130		
Hexachloro-1,3-Butadiene	39		1.0	µg/Kg	40.0		97.8	70-130		
Methylene Chloride	44		20	µg/Kg	40.0		109	70-130		
Methyl-t-Butyl Ether (MTBE)	42		1.0	µg/Kg	40.0		104	70-130		
Naphthalene	41		10	µg/Kg	40.0		101	70-130		
Styrene	42		1.0	µg/Kg	40.0		106	70-130		
tert-Butylbenzene	42		1.0	µg/Kg	40.0		104	70-130		
Tetrachloroethene	40		1.0	µg/Kg	40.0		101	70-130		
Toluene	41		1.0	µg/Kg	40.0		103	70-130		
1,2,3-Trichlorobenzene	42		1.0	µg/Kg	40.0		104	70-130		
Trichloroethene	39		1.0	µg/Kg	40.0		97.6	70-130		
1,3,5-Trimethylbenzene	44		1.0	µg/Kg	40.0		109	70-130		
Vinyl Chloride	36		1.0	µg/Kg	40.0		90.8	70-130		
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		100	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		97.5	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.6	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0027 (Continued)										
LCS Dup (B9A0027-BSD1)				Prepared & Analyzed: 01/29/2019						
Benzene	40		1.0	µg/Kg	40.0		99.8	70-130	3.11	20
Bromobenzene	41		1.0	µg/Kg	40.0		102	70-130	1.17	20
Bromodichloromethane	43		1.0	µg/Kg	40.0		107	70-130	3.10	20
Bromoform	41		1.0	µg/Kg	40.0		103	70-130	5.51	20
Chlorobenzene	39		1.0	µg/Kg	40.0		98.3	70-130	4.35	20
Chloroethane	39		5.0	µg/Kg	40.0		97.8	70-130	0.484	20
Chloroform	40		1.0	µg/Kg	40.0		100	70-130	2.39	20
4-Chlorotoluene	41		1.0	µg/Kg	40.0		102	70-130	2.05	20
Dibromomethane	43		1.0	µg/Kg	40.0		106	70-130	1.98	20
1,2-Dichlorobenzene	40		1.0	µg/Kg	40.0		100	70-130	0.796	20
1,1-Dichloroethene	40		1.0	µg/Kg	40.0		99.0	70-130	5.66	20
1,2-Dichloropropane	42		1.0	µg/Kg	40.0		105	70-130	2.24	20
2,2-Dichloropropane	42		1.0	µg/Kg	40.0		106	70-130	1.52	20
1,1-Dichloropropene	39		1.0	µg/Kg	40.0		97.4	70-130	5.15	20
Diethyl Ether	35		5.0	µg/Kg	40.0		86.7	70-130	4.26	20
Diisopropyl Ether (DIPE)	40		1.0	µg/Kg	40.0		99.5	70-130	3.07	20
Ethylbenzene	40		1.0	µg/Kg	40.0		100	70-130	2.24	20
Hexachloro-1,3-Butadiene	39		1.0	µg/Kg	40.0		98.2	70-130	0.383	20
Methylene Chloride	44		20	µg/Kg	40.0		111	70-130	1.55	20
Methyl-t-Butyl Ether (MTBE)	40		1.0	µg/Kg	40.0		99.1	70-130	4.80	20
Naphthalene	40		10	µg/Kg	40.0		100	70-130	1.12	20
Styrene	42		1.0	µg/Kg	40.0		106	70-130	0.283	20
tert-Butylbenzene	41		1.0	µg/Kg	40.0		102	70-130	1.91	20
Tetrachloroethene	39		1.0	µg/Kg	40.0		96.8	70-130	4.44	20
Toluene	40		1.0	µg/Kg	40.0		99.9	70-130	3.47	20
1,2,3-Trichlorobenzene	41		1.0	µg/Kg	40.0		101	70-130	2.84	20
Trichloroethene	38		1.0	µg/Kg	40.0		95.9	70-130	1.76	20
1,3,5-Trimethylbenzene	43		1.0	µg/Kg	40.0		108	70-130	0.991	20
Vinyl Chloride	35		1.0	µg/Kg	40.0		86.5	70-130	4.77	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		99.1	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		100	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
QM-07	The spike recovery and or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR-04	The pecent recovery and/or RPD was outside acceptance criteria. Results accepted based upon percent recovery results in duplicate QC sample and the CCV and CCB results.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: 1901033

Client Name / Address	Langan, 515 S Flower Street, Suite 2860, Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kehoe / SS / KL / TP

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH 8015M	CrVI 7199	Total Metals 6020	VOCs 8260B
1	OS-2-0.5'	1/28/19	0758	S	1J		X	X	
2	OS-2-1'		0759		1J / VOAs	X			X
3	OS-2-2'		0811		1J		X	X	
4	OS-2-5'		0818		2J / VOAs	X	X	X	X
5	OS-2-10'		0825		2J / VOAs	X	X	X	X
6	OS-2-20'		0853		1J / VOAS	X			X
7	OS-1-0.5'		0929		1J		X	X	
8	OS-1-1'		0931		1J / VOAS	X			X
9	OS-1-2'		0934		1J		X	X	
10	OS-1-5'		1033		2J / VOAS	X	X	X	X

REQUESTED ANALYSIS

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD 5 day) RUSH 24 48 72

EDD Required - Circle one:	(Yes)	No
Type of EDD:	EZEDD	
Reciept Temp./ Initials: (Temp recorded is not corrected)	1.9 °C MV	

OPEN SPACE

RELINQUISHED BY
Signature:
Print: Neil Shukla
Company: Langan
DATE: 1/29/19
TIME: 8:52

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 1/29/19
TIME: 850

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-4432

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901033

Client Name / Address	Langan
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kehoe / SS / KL / TP

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH 8015M	Cr VI 7199	Total Metals 6020	VOCs 8260B
1	OS-1-10'	1/28/19	1011		2J/VOAs	X	X	X	X
2	OS-1-20'		1033		1J/VOAs	X			X
3	~~SCE-13-0.25'~~		~~1300~~						
4	~~SCE-13-0.5'~~		~~1305~~						
5	~~SCE-13-2'~~		~~1309~~						
6	~~SCE-13-5~~								
7									
8									
9									
10									

G-4433

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD 5 day) | RUSH: 24 | 48 | 72

EDD Required - Circle one: Yes / No

Type of EDD:

Reciept Temp./ Initials: (Temp recorded is not corrected) 1.9°C MV

OPEN SPACE

RELINQUISHED BY
Signature: [signature]
Print: Neil Shukla
Company: Langan
DATE: 1/29/19
TIME: 8:50

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 1/29/19
TIME: 850

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P901033

Cooler 1 OF 1

Client Langan

Date Received: 1/29/19

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	1.9	0.0	1.9	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)		X	
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

5035 Kit was not labeled But we labeled it 05-1-1' Because it was the only sample missing

Initials	Date	Initials	Date
MV	1/29/19		

Performance Analytical Laboratories, Inc.

+1.2

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901033

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

T190225

RECEIVING LABORATORY:

Sun Star Laboratories, Inc.
25712 Commercentre Drive
Lake Forest, CA 92630
Phone :(949) 297-5020
Fax: .

Analysis	Due	Comments
Sample ID: OS-2-0.5' **Matrix:Solid**	**Sampled: 01/28/2019 07:58**	
S_Hexavalent Chromium 7199	02/05/2019 15:00	
S_Metals Title 22 6020	02/05/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: OS-2-2' **Matrix:Solid**	**Sampled: 01/28/2019 08:11**	
S_Hexavalent Chromium 7199	02/05/2019 15:00	
S_Metals Title 22 6020	02/05/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: OS-2-5' **Matrix:Solid**	**Sampled: 01/28/2019 08:18**	
S_Hexavalent Chromium 7199	02/05/2019 15:00	
S_Metals Title 22 6020	02/05/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (E)		
Sample ID: OS-2-10' **Matrix:Solid**	**Sampled: 01/28/2019 08:25**	
S_Hexavalent Chromium 7199	02/05/2019 15:00	
S_Metals Title 22 6020	02/05/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (E)		
Sample ID: OS-1-0.5' **Matrix:Solid**	**Sampled: 01/28/2019 00:00**	
S_Hexavalent Chromium 7199	02/05/2019 15:00	
S_Metals Title 22 6020	02/05/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

Released By	Date	Time	Received By	Date	Time
M Valenzuela	1/29/19	1448	Keith Arnold	1/29/19	14:48
Keith Arnold	1/29/19	15:42		1/29/19	1542

Performance Analytical Laboratories, Inc.

T190225

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901033

Analysis	Due	Comments
Sample ID: OS-1-2' **Matrix:Solid**	**Sampled: 01/28/2019 09:34**	
S_Hexavalent Chromium 7199	02/05/2019 15:00	
06 S_Metals Title 22 6020	02/05/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: OS-1-5' **Matrix:Solid**	**Sampled: 01/28/2019 10:33**	
S_Hexavalent Chromium 7199	02/05/2019 15:00	
07 S_Metals Title 22 6020	02/05/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (E)		
Sample ID: OS-1-10' **Matrix:Solid**	**Sampled: 01/28/2019 10:11**	
S_Hexavalent Chromium 7199	02/05/2019 15:00	
08 S_Metals Title 22 6020	02/05/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (E)		

Released By	Date	Time	Received By	Date	Time
[signature]	1/29/19	1448	[signature]	1/29/19	14:48
[signature]	1/29/19	15:42	[signature]	1/29/19	1542

SunStar Laboratories — Celebrating 20 Years!

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T190225

Client Name: PAL

Project: DTSC RIVERSIDE

Delivered by: ☐ Client ☒ SunStar Courier ☐ GSO ☐ FedEx ☐ Other

If Courier, Received by: KEITH

Date/Time Courier Received: 1/29/19 14:48

Lab Received by: BRIAN

Date/Time Lab Received: 1/29/19 15:42

Total number of coolers received: 0

Temperature: Cooler #1 0.0	°C +/- the CF (1.2°C) = 1.2	°C corrected temperature	
Temperature: Cooler #2	°C +/- the CF (1.2°C) =	°C corrected temperature	
Temperature: Cooler #3	°C +/- the CF (1.2°C) =	°C corrected temperature	
Temperature criteria = ≤ 6°C (no frozen containers)	Within criteria?	☒ **Yes** ☐ **No**	
If NO:			
Samples received on ice?	☐ Yes	☐ **No → Complete Non-Conformance Sheet**	
If on ice, samples received same day collected?	☐ Yes → Acceptable	☐ **No → Complete Non-Conformance Sheet**	

Custody seals intact on cooler/sample	☐ Yes	☐ No*	☑ N/A
Sample containers intact	☒ Yes	☐ No*	
Sample labels match Chain of Custody IDs	☒ Yes	☐ No*	
Total number of containers received match COC	☑ Yes	☐ No*	
Proper containers received for analyses requested on COC	☑ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☒ N/A
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times	☒ **Yes**	☐ **No***	

* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date: BC 1/29/19

Comments:

(949) 297-5020 ■ www.sunstarlabs.com ■ 25712 Commercentre Drive ■ Lake Forest, CA 92630

Performance Analytical Laboratories, Inc.

ELAP 2960

February 18, 2019

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : DTSC Riverside

Work Order: P901025

Dear Brad McCardell

Enclosed are the results of analyses for samples received by our laboratory on 1/22/2019. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 25

Qualifiers and Definitions 41

Chain of Custody PDFs 42

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P901025-01	SW-3-0.5'		Solid	01/22/2019	01/22/2019
P901025-02	SW-3-2'		Solid	01/22/2019	01/22/2019
P901025-03	SW-3-5'		Solid	01/22/2019	01/22/2019

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-0.5' **P901025-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022)							
C7-C8	ND	mg/kg	10	500	01/25/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	10	500	01/25/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	10	500	01/25/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	10	500	01/25/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	10	500	01/25/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	10	500	01/25/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	10	500	01/25/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	10	500	01/25/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	10	500	01/25/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	10	500	01/25/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	10	500	01/25/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	10	500	01/25/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	%			60-140	01/25/2019	EPA 8015B (M)	S-01
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	**1900**	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012514)							
Mercury	**0.47**	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**4.5**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**79**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	**0.47**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**16**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**5.1**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**36**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**29**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/28/2019	6020 ICP-MS	
Molybdenum	**1.6**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-0.5' (Continued) **P901025-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012509) (Continued)							
Nickel	**12**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Vanadium	**22**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**59**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
PAH-SIM_Subcontract (Batch ID: QC1210443)							
1-Methylnaphthalene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
2-Methylnaphthalene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Acenaphthene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Acenaphthylene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Anthracene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Benz(a)anthracene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Benzo(a)pyrene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Benzo(b)fluoranthene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Benzo(g,h,i)perylene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Benzo(k)fluoranthene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Chrysene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Dibenz(a,h)anthracene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Fluoranthene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Fluorene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Naphthalene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Phenanthrene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Pyrene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Surrogate: 2-Fluorobiphenyl (SUR)	70%			30-120	01/25/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	66%			27-125	01/25/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	76%			33-155	01/25/2019	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442)							
1,2,4-Trichlorobenzene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
1,2-Dichlorobenzene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
1,3-Dichlorobenzene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-0.5' (Continued) **P901025-01 (Solid)**

Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,4-Dichlorobenzene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
1-Methylnaphthalene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2,4,5-Trichlorophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2,4,6-Trichlorophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2,4-Dichlorophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2,4-Dimethylphenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2,4-Dinitrophenol	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
2,4-Dinitrotoluene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2,6-Dinitrotoluene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Chloronaphthalene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Chlorophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Methylnaphthalene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Methylphenol (o-Cresol)	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Nitroaniline	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Nitrophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	10	4000	01/25/2019	EPA 8270C	D2
3,3'-Dichlorobenzidine	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
3-Nitroaniline	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
4-Bromophenyl phenyl ether	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
4-Chloro-3-methylphenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
4-Chloroaniline	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
4-Chlorophenyl phenyl ether	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
4-Nitroaniline	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
4-Nitrophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Acenaphthene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Acenaphthylene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Aniline	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Anthracene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Azobenzene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Benz(a)anthracene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Benzidine	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
Benzo(a)pyrene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Benzo(b)fluoranthene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Benzo(g,h,i)perylene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Benzo(k)fluoranthene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-0.5' (Continued) **P901025-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
Benzoic acid	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
Benzyl alcohol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Bis(2-chloroethoxy)methane	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Bis(2-chloroethyl) Ether	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Butylbenzyl Phthalate	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Carbazole	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Chrysene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Dibenz(a,h)anthracene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Dibenzofuran	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Diethyl phthalate	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Dimethyl phthalate	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Di-n-butyl phthalate	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Di-n-octyl phthalate	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Fluoranthene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Fluorene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Hexachlorobenzene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Hexachlorobutadiene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Hexachlorocyclopentadiene	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
Hexachloroethane	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Isophorone	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Naphthalene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Nitrobenzene	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
N-Nitrosodiphenylamine	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Pentachlorophenol	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
Phenanthrene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Phenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Pyrene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Pyridine	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Total Cresol	ND	ug/Kg	10	4000	01/25/2019	EPA 8270C	D2
Surrogate: 2,4,6-Tribromophenol (SUR)	162%			34-143	01/25/2019	EPA 8270C	S

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-0.5' (Continued) **P901025-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
Surrogate: 2-Fluorobiphenyl (SUR)	74%			41-125	01/25/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	48%			13-153	01/25/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	50%			27-125	01/25/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	64%			10-110	01/25/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	81%			33-155	01/25/2019	EPA 8270C	
Volatile Organic Compounds (Batch ID: B9A0032)							
Acetone	ND	µg/Kg	1	20	01/30/2019	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	51	01/30/2019	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Benzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Bromoform	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.1	01/30/2019	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	01/30/2019	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.1	01/30/2019	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.1	01/30/2019	EPA 8260B	
Chloroform	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Chloromethane	ND	µg/Kg	1	5.1	01/30/2019	EPA 8260B	
Chloroprene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.1	01/30/2019	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-0.5' (Continued) **P901025-01 (Solid)**

Volatile Organic Compounds (Batch ID: B9A0032) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	5.1	01/30/2019	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	5.1	01/30/2019	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	5.1	01/30/2019	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.1	01/30/2019	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	20	01/30/2019	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	5.1	01/30/2019	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	01/30/2019	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Naphthalene	ND	µg/Kg	1	10	01/30/2019	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20	01/30/2019	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Styrene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	01/30/2019	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-0.5' (Continued) **P901025-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B9A0032) (Continued)							
Tetrachloroethene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Tetrahydrofuran	ND	µg/Kg	1	20	01/30/2019	EPA 8260B	
Toluene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
o-Xylene	ND	µg/Kg	1	1.0	01/30/2019	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.0	01/30/2019	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.0	01/30/2019	EPA 8260B	
Surrogate: Dibromofluoromethane	102%			60-140	01/30/2019	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	93.9%			60-140	01/30/2019	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	104%			60-140	01/30/2019	EPA 8260B	
Surrogate: Toluene-d8	97.3%			60-140	01/30/2019	EPA 8260B	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-2' **P901025-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022)							
C7-C8	ND	mg/kg	1	20.0	01/25/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	20.0	01/25/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	20.0	01/25/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	20.0	01/25/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	20.0	01/25/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	20.0	01/25/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	20.0	01/25/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	20.0	01/25/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	20.0	01/25/2019	EPA 8015B (M)	
C25-C27	**27.7**	mg/kg	1	20.0	01/25/2019	EPA 8015B (M)	
C28-C33	**118**	mg/kg	1	20.0	01/25/2019	EPA 8015B (M)	
C34-C40	**66.6**	mg/kg	1	20.0	01/25/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	110%			60-140	01/25/2019	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	**350**	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012514)							
Mercury	**0.35**	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**3.9**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**59**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	**0.36**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**11**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**4.5**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**12**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**13**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/28/2019	6020 ICP-MS	
Molybdenum	**0.45**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-2' (Continued) **P901025-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012509) (Continued)							
Nickel	**7.5**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Vanadium	**20**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**39**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
PAH-SIM_Subcontract (Batch ID: QC1210443)							
1-Methylnaphthalene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
2-Methylnaphthalene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Acenaphthene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Acenaphthylene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Anthracene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Benz(a)anthracene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Benzo(a)pyrene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Benzo(b)fluoranthene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Benzo(g,h,i)perylene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Benzo(k)fluoranthene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Chrysene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Dibenz(a,h)anthracene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Fluoranthene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Fluorene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Naphthalene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Phenanthrene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Pyrene	ND	ug/Kg	10	100	01/25/2019	EPA 8270CM	D2
Surrogate: 2-Fluorobiphenyl (SUR)	61%			30-120	01/25/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	60%			27-125	01/25/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	68%			33-155	01/25/2019	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442)							
1,2,4-Trichlorobenzene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
1,2-Dichlorobenzene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
1,3-Dichlorobenzene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-2' (Continued) **P901025-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
1,4-Dichlorobenzene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
1-Methylnaphthalene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2,4,5-Trichlorophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2,4,6-Trichlorophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2,4-Dichlorophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2,4-Dimethylphenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2,4-Dinitrophenol	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
2,4-Dinitrotoluene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2,6-Dinitrotoluene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Chloronaphthalene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Chlorophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Methylnaphthalene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Methylphenol (o-Cresol)	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Nitroaniline	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
2-Nitrophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	10	4000	01/25/2019	EPA 8270C	D2
3,3'-Dichlorobenzidine	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
3-Nitroaniline	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
4-Bromophenyl phenyl ether	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
4-Chloro-3-methylphenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
4-Chloroaniline	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
4-Chlorophenyl phenyl ether	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
4-Nitroaniline	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
4-Nitrophenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Acenaphthene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Acenaphthylene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Aniline	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Anthracene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Azobenzene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Benz(a)anthracene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Benzidine	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
Benzo(a)pyrene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Benzo(b)fluoranthene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Benzo(g,h,i)perylene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Benzo(k)fluoranthene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-2' (Continued) **P901025-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
Benzoic acid	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
Benzyl alcohol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Bis(2-chloroethoxy)methane	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Bis(2-chloroethyl) Ether	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Butylbenzyl Phthalate	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Carbazole	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Chrysene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Dibenz(a,h)anthracene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Dibenzofuran	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Diethyl phthalate	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Dimethyl phthalate	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Di-n-butyl phthalate	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Di-n-octyl phthalate	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Fluoranthene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Fluorene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Hexachlorobenzene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Hexachlorobutadiene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Hexachlorocyclopentadiene	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
Hexachloroethane	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Isophorone	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Naphthalene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Nitrobenzene	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
N-Nitrosodiphenylamine	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Pentachlorophenol	ND	ug/Kg	10	12000	01/25/2019	EPA 8270C	D2
Phenanthrene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Phenol	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Pyrene	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Pyridine	ND	ug/Kg	10	2500	01/25/2019	EPA 8270C	D2
Total Cresol	ND	ug/Kg	10	4000	01/25/2019	EPA 8270C	D2
Surrogate: 2,4,6-Tribromophenol (SUR)	158%			34-143	01/25/2019	EPA 8270C	S

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-2' (Continued) **P901025-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
Surrogate: 2-Fluorobiphenyl (SUR)	59%			41-125	01/25/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	41%			13-153	01/25/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	41%			27-125	01/25/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	51%			10-110	01/25/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	67%			33-155	01/25/2019	EPA 8270C	
Volatile Organic Compounds (Batch ID: B9A0032)							
Acetone	ND	µg/Kg	1	19	01/30/2019	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	48	01/30/2019	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Benzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.8	01/30/2019	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	19	01/30/2019	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.8	01/30/2019	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.8	01/30/2019	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.8	01/30/2019	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	4.8	01/30/2019	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-2' (Continued) **P901025-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B9A0032) (Continued)							
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	4.8	01/30/2019	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	4.8	01/30/2019	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	4.8	01/30/2019	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.8	01/30/2019	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	19	01/30/2019	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	4.8	01/30/2019	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	19	01/30/2019	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.6	01/30/2019	EPA 8260B	
Propionitrile	ND	µg/Kg	1	19	01/30/2019	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Styrene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	24	01/30/2019	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-2' (Continued) **P901025-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B9A0032) (Continued)							
Tetrachloroethene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Tetrahydrofuran	ND	µg/Kg	1	19	01/30/2019	EPA 8260B	
Toluene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.96	01/30/2019	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.9	01/30/2019	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.9	01/30/2019	EPA 8260B	
Surrogate: Dibromofluoromethane	102%			60-140	01/30/2019	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	95.7%			60-140	01/30/2019	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	104%			60-140	01/30/2019	EPA 8260B	
Surrogate: Toluene-d8	96.0%			60-140	01/30/2019	EPA 8260B	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-5' **P901025-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0033)							
C7-C8	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C28-C33	**17.0**	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
C34-C40	**11.3**	mg/kg	1	10.0	02/01/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	92.9%			60-140	02/01/2019	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	**660**	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012514)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**3.2**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**35**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**7.6**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**3.4**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**6.8**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**6.4**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/28/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**5.7**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-5' (Continued) **P901025-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012509) (Continued)							
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Vanadium	**15**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**26**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
PAH-SIM_Subcontract (Batch ID: QC1210443)							
1-Methylnaphthalene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
2-Methylnaphthalene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Acenaphthene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Acenaphthylene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Anthracene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Benz(a)anthracene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Benzo(a)pyrene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Benzo(b)fluoranthene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Benzo(g,h,i)perylene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Benzo(k)fluoranthene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Chrysene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Dibenz(a,h)anthracene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Fluoranthene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Fluorene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Naphthalene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Phenanthrene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Pyrene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Surrogate: 2-Fluorobiphenyl (SUR)	63%			30-120	01/25/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	75%			27-125	01/25/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	70%			33-155	01/25/2019	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442)							
1,2,4-Trichlorobenzene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
1,2-Dichlorobenzene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
1,3-Dichlorobenzene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
1,4-Dichlorobenzene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-5' (Continued) **P901025-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
1-Methylnaphthalene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2,4,5-Trichlorophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2,4,6-Trichlorophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2,4-Dichlorophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2,4-Dimethylphenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2,4-Dinitrophenol	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
2,4-Dinitrotoluene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2,6-Dinitrotoluene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Chloronaphthalene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Chlorophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Methylnaphthalene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Methylphenol (o-Cresol)	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Nitroaniline	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Nitrophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	2	800	01/25/2019	EPA 8270C	D2
3,3'-Dichlorobenzidine	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
3-Nitroaniline	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
4-Bromophenyl phenyl ether	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
4-Chloro-3-methylphenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
4-Chloroaniline	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
4-Chlorophenyl phenyl ether	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
4-Nitroaniline	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
4-Nitrophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Acenaphthene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Acenaphthylene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Aniline	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Anthracene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Azobenzene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Benz(a)anthracene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Benzidine	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
Benzo(a)pyrene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Benzo(b)fluoranthene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Benzo(g,h,i)perylene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Benzo(k)fluoranthene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Benzoic acid	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-5' (Continued) **P901025-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
Benzyl alcohol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Bis(2-chloroethoxy)methane	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Bis(2-chloroethyl) Ether	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Butylbenzyl Phthalate	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Carbazole	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Chrysene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Dibenz(a,h)anthracene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Dibenzofuran	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Diethyl phthalate	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Dimethyl phthalate	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Di-n-butyl phthalate	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Di-n-octyl phthalate	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Fluoranthene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Fluorene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Hexachlorobenzene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Hexachlorobutadiene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Hexachlorocyclopentadiene	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
Hexachloroethane	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Isophorone	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Naphthalene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Nitrobenzene	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
N-Nitrosodiphenylamine	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Pentachlorophenol	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
Phenanthrene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Phenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Pyrene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Pyridine	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Total Cresol	ND	ug/Kg	2	800	01/25/2019	EPA 8270C	D2
Surrogate: 2,4,6-Tribromophenol (SUR)	144%			34-143	01/25/2019	EPA 8270C	S
Surrogate: 2-Fluorobiphenyl (SUR)	168%			41-125	01/25/2019	EPA 8270C	S

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-5' (Continued) **P901025-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
Surrogate: 2-Fluorophenol (SUR)	146%			13-153	01/25/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	131%			27-125	01/25/2019	EPA 8270C	S
Surrogate: Phenol-d5 (SUR)	172%			10-110	01/25/2019	EPA 8270C	S
Surrogate: p-Terphenyl (SUR)	210%			33-155	01/25/2019	EPA 8270C	S
Volatile Organic Compounds (Batch ID: B9A0032)							
Acetone	ND	µg/Kg	1	20	01/30/2019	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	50	01/30/2019	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Benzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.0	01/30/2019	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	01/30/2019	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.0	01/30/2019	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.0	01/30/2019	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Chloromethane	ND	µg/Kg	1	5.0	01/30/2019	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.0	01/30/2019	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-5' (Continued) **P901025-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B9A0032) (Continued)							
1,1-Dichloroethane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	5.0	01/30/2019	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	5.0	01/30/2019	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	5.0	01/30/2019	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.0	01/30/2019	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	20	01/30/2019	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	5.0	01/30/2019	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	01/30/2019	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.9	01/30/2019	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20	01/30/2019	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Styrene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	01/30/2019	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-3-5' (Continued) **P901025-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B9A0032) (Continued)							
Tetrahydrofuran	ND	µg/Kg	1	20	01/30/2019	EPA 8260B	
Toluene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.99	01/30/2019	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.0	01/30/2019	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.0	01/30/2019	EPA 8260B	
Surrogate: Dibromofluoromethane	105%			60-140	01/30/2019	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	94.7%			60-140	01/30/2019	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	99.8%			60-140	01/30/2019	EPA 8260B	
Surrogate: Toluene-d8	90.0%			60-140	01/30/2019	EPA 8260B	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0022										
Blank (B9A0022-BLK1)				Prepared & Analyzed: 01/24/2019						
C7-C8	ND		10.0	mg/kg						
C9-C10	ND		10.0	mg/kg						
C11-C12	ND		10.0	mg/kg						
C13-C14	ND		10.0	mg/kg						
C15-C16	ND		10.0	mg/kg						
C17-C18	ND		10.0	mg/kg						
C19-C20	ND		10.0	mg/kg						
C21-C22	ND		10.0	mg/kg						
C23-C24	ND		10.0	mg/kg						
C25-C27	ND		10.0	mg/kg						
C28-C33	ND		10.0	mg/kg						
C34-C40	ND		10.0	mg/kg						
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.04		95.1	60-140		
LCS (B9A0022-BS1)				Prepared & Analyzed: 01/24/2019						
Diesel	44.4		10.0	mg/kg	50.0		88.9	70-130		
Surrogate: n-Octacosane (c28)	2.07			mg/kg	2.04		101	60-140		
LCS Dup (B9A0022-BSD1)				Prepared & Analyzed: 01/24/2019						
Diesel	45.4		10.0	mg/kg	50.0		90.8	70-130	2.09	20
Surrogate: n-Octacosane (c28)	2.01			mg/kg	2.04		98.4	60-140		
Batch: B9A0033										
Blank (B9A0033-BLK1)				Prepared: 01/31/2019 Analyzed: 02/01/2019						
C7-C8	ND		10.0	mg/kg						
C9-C10	ND		10.0	mg/kg						
C11-C12	ND		10.0	mg/kg						
C13-C14	ND		10.0	mg/kg						
C15-C16	ND		10.0	mg/kg						
C17-C18	ND		10.0	mg/kg						
C19-C20	ND		10.0	mg/kg						
C21-C22	ND		10.0	mg/kg						
C23-C24	ND		10.0	mg/kg						
C25-C27	ND		10.0	mg/kg						
C28-C33	ND		10.0	mg/kg						
C34-C40	ND		10.0	mg/kg						
Surrogate: n-Octacosane (c28)	2.14			mg/kg	2.04		105	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0033 (Continued)										
LCS (B9A0033-BS1)				Prepared: 01/31/2019 Analyzed: 02/01/2019						
Diesel	39.7		10.0	mg/kg	50.0		79.4	70-130		
Surrogate: n-Octacosane (c28)	2.15			mg/kg	2.04		105	60-140		
LCS Dup (B9A0033-BSD1)				Prepared: 01/31/2019 Analyzed: 02/01/2019						
Diesel	44.5		10.0	mg/kg	50.0		89.0	70-130	11.3	20
Surrogate: n-Octacosane (c28)	2.27			mg/kg	2.04		111	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012412										
Blank (9012412-BLK1)				Prepared: 01/24/2019 Analyzed: 01/28/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9012412-BS1)				Prepared: 01/24/2019 Analyzed: 01/28/2019						
Hexavalent Chromium	10300		200	ug/kg	10000		103	80-120		
Matrix Spike (9012412-MS1)		**Source: T190161-24**		Prepared: 01/24/2019 Analyzed: 01/28/2019						
Hexavalent Chromium	9650		200	ug/kg	10000	ND	96.5	75-125		
Matrix Spike Dup (9012412-MSD1)		**Source: T190161-24**		Prepared: 01/24/2019 Analyzed: 01/28/2019						
Hexavalent Chromium	9560		200	ug/kg	9880	ND	96.8	75-125	0.920	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012514										
Blank (9012514-BLK1)				Prepared & Analyzed: 01/25/2019						
Mercury	ND		0.10	mg/kg						
LCS (9012514-BS1)				Prepared & Analyzed: 01/25/2019						
Mercury	0.373		0.10	mg/kg	0.385		97.0	80-120		
Matrix Spike (9012514-MS1)		**Source: P901025-01**		Prepared & Analyzed: 01/25/2019						
Mercury	0.783		0.10	mg/kg	0.403	0.473	76.7	75-125		
Matrix Spike Dup (9012514-MSD1)		**Source: P901025-01**		Prepared & Analyzed: 01/25/2019						
Mercury	0.776	QR-04	0.10	mg/kg	0.410	0.473	73.9	75-125	0.847	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Metals, Title 22 ICP-MS_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012509										
Blank (9012509-BLK1)				Prepared: 01/25/2019 Analyzed: 01/28/2019						
Antimony	ND		0.25	mg/kg						
Arsenic	ND		0.25	mg/kg						
Barium	ND		0.25	mg/kg						
Beryllium	ND		0.25	mg/kg						
Cadmium	ND		0.25	mg/kg						
Chromium	ND		0.25	mg/kg						
Cobalt	ND		0.25	mg/kg						
Copper	ND		0.25	mg/kg						
Lead	ND		0.25	mg/kg						
Mercury	ND		0.025	mg/kg						
Molybdenum	ND		0.25	mg/kg						
Nickel	ND		0.25	mg/kg						
Selenium	ND		1.2	mg/kg						
Silver	ND		0.25	mg/kg						
Thallium	ND		0.25	mg/kg						
Vanadium	ND		0.25	mg/kg						
Zinc	ND		0.25	mg/kg						
Duplicate (9012509-DUP1)		**Source: T190161-23**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	7.05		1.2	mg/kg		7.06			0.184	20
Barium	51.6		1.2	mg/kg		46.5			10.5	20
Cadmium	0.605		1.2	mg/kg		0.514			16.3	20
Chromium	16.0		1.2	mg/kg		13.8			14.9	20
Lead	10.7		1.2	mg/kg		9.70			9.96	20
LCS (9012509-BS1)				Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	21.8		0.25	mg/kg	25.0		87.2	80-120		
Barium	22.1		0.25	mg/kg	25.0		88.5	80-120		
Cadmium	22.4		0.25	mg/kg	25.0		89.5	80-120		
Chromium	22.5		0.25	mg/kg	25.0		90.0	80-120		
Lead	22.6		0.25	mg/kg	25.0		90.6	80-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Metals, Title 22 ICP-MS_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012509 (Continued)										
Matrix Spike (9012509-MS2)		**Source: T190161-24**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	26.3		0.25	mg/kg	25.0	2.32	96.1	75-125		
Arsenic	37.0	QM-PS	0.25	mg/kg	22.9	7.06	130	75-125		
Barium	97.5	QM-PS	0.25	mg/kg	22.9	46.5	223	75-125		
Barium	41.0		0.25	mg/kg	25.0	18.1	91.5	75-125		
Cadmium	27.2		0.25	mg/kg	22.9	0.514	116	75-125		
Cadmium	23.1		0.25	mg/kg	25.0	0.0778	92.1	75-125		
Chromium	49.7	QM-PS	0.25	mg/kg	22.9	13.8	157	75-125		
Chromium	42.8		0.25	mg/kg	25.0	19.0	95.2	75-125		
Lead	44.3	QM-05	0.25	mg/kg	22.9	9.70	151	75-125		
Lead	30.2		0.25	mg/kg	25.0	6.22	95.8	75-125		
Matrix Spike Dup (9012509-MSD1)		**Source: T190161-23**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	29.9	QM-PS	0.25	mg/kg	23.4	7.06	97.7	75-125	21.2	20
Barium	70.5	QM-PS	0.25	mg/kg	23.4	46.5	103	75-125	32.2	20
Cadmium	21.7	QR-04	0.25	mg/kg	23.4	0.514	90.8	75-125	22.4	20
Chromium	37.5	QM-PS	0.25	mg/kg	23.4	13.8	101	75-125	28.1	20
Lead	30.5	QM-05	0.25	mg/kg	23.4	9.70	89.0	75-125	37.0	20
Post Spike (9012509-PS1)		**Source: T190161-23**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	28.3			ug/kg	25.0	7.06	84.9	80-120		
Barium	70.2			ug/kg	25.0	46.5	94.7	80-120		
Cadmium	21.5			ug/kg	25.0	0.514	84.0	80-120		
Chromium	36.1			ug/kg	25.0	13.8	89.3	80-120		
Lead	31.7			ug/kg	25.0	9.70	87.8	80-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

PAH-SIM_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210443										
LCS (QC1210443LCS1)		**Source: NA**			Prepared: 01/24/2019 Analyzed: 01/25/2019					
Benzo(b)fluoranthene	63		10	ug/Kg	50	NA	126	63-147		
Phenanthrene	47		10	ug/Kg	50	NA	94	65-132		
Naphthalene	46		10	ug/Kg	50	NA	92	50-130		
Indeno(1,2,3-cd)pyrene	59		10	ug/Kg	50	NA	118	58-144		
Fluorene	49		10	ug/Kg	50	NA	98	63-130		
Fluoranthene	54		10	ug/Kg	50	NA	108	68-139		
Dibenz(a,h)anthracene	53		10	ug/Kg	50	NA	106	52-144		
Benzo(k)fluoranthene	57		10	ug/Kg	50	NA	114	64-142		
Benzo(g,h,i)perylene	53		10	ug/Kg	50	NA	106	54-135		
Benz(a)anthracene	61		10	ug/Kg	50	NA	122	61-147		
Anthracene	51		10	ug/Kg	50	NA	102	55-136		
Acenaphthylene	51		10	ug/Kg	50	NA	102	52-130		
Acenaphthene	47		10	ug/Kg	50	NA	94	58-130		
2-Methylnaphthalene	53		10	ug/Kg	50	NA	106	59-130		
1-Methylnaphthalene	48		10	ug/Kg	50	NA	96	38-130		
Chrysene	44		10	ug/Kg	50	NA	88	66-130		
Benzo(a)pyrene	64		10	ug/Kg	50	NA	128	36-168		
Pyrene	50		10	ug/Kg	50	NA	100	68-134		
Surrogate: Nitrobenzene-d5 (SUR)	42.201			ug/Kg	50	NA	84	27-125		
Surrogate: p-Terphenyl (SUR)	48.34			ug/Kg	50	NA	97	33-155		
Surrogate: 2-Fluorobiphenyl (SUR)	45.65			ug/Kg	50	NA	91	30-120		
Method Blank (QC1210443MB1)		**Source: NA**			Prepared & Analyzed: 01/24/2019					
Acenaphthene	ND		10	ug/Kg		NA		-		
Pyrene	ND		10	ug/Kg		NA		-		
Chrysene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
Acenaphthylene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Benzo(a)pyrene	ND		10	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Fluoranthene	ND		10	ug/Kg		NA		-		
Fluorene	ND		10	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Phenanthrene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Surrogate: p-Terphenyl (SUR)	33.192			ug/Kg	50	NA	66	33-155		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

PAH-SIM_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210443 (Continued)										
Method Blank (QC1210443MB1)		**Source: NA**			Prepared & Analyzed: 01/24/2019					
Surrogate: Nitrobenzene-d5 (SUR)	31.426			ug/Kg	50	NA	63	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	30.52			ug/Kg	50	NA	61	30-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210442										
LCS (QC1210442LCS1)		**Source: NA**			Prepared: 01/24/2018 Analyzed: 01/25/2019					
1,4-Dichlorobenzene	1300		250	ug/Kg	2000	NA	65	30-116		
1,2,4-Trichlorobenzene	1300		250	ug/Kg	2000	NA	65	43-111		
2,4,5-Trichlorophenol	1400		250	ug/Kg	2000	NA	70	57-125		
2,4-Dimethylphenol	1300		250	ug/Kg	2000	NA	65	50-112		
2,4-Dinitrotoluene	1400		250	ug/Kg	2000	NA	70	57-124		
N-Nitrosodi-n-propylamine (NDPA)	1500		250	ug/Kg	2000	NA	75	54-110		
Pyrene	1600		250	ug/Kg	2000	NA	80	63-119		
Pentachlorophenol	1200		1200	ug/Kg	2000	NA	60	41-103		
Benzo(b)fluoranthene	1400		250	ug/Kg	2000	NA	70	61-125		
Chrysene	1600		250	ug/Kg	2000	NA	80	59-117		
Acenaphthene	1400		250	ug/Kg	2000	NA	70	53-112		
4-Chloro-3-methylphenol	1400		250	ug/Kg	2000	NA	70	61-122		
3 and 4-Methylphenol (m and p-Cresol)	1600		400	ug/Kg	2000	NA	80	56-124		
2-Chlorophenol	1400		250	ug/Kg	2000	NA	70	48-114		
Phenol	1500		250	ug/Kg	2000	NA	75	51-111		
4-Nitrophenol	1300		250	ug/Kg	2000	NA	65	54-126		
Surrogate: 2,4,6-Tribromophenol (SUR)	1351.88			ug/Kg	2000	NA	68	34-143		
Surrogate: p-Terphenyl (SUR)	1626.328			ug/Kg	2000	NA	81	33-155		
Surrogate: Phenol-d5 (SUR)	1454.582			ug/Kg	2000	NA	73	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1338.4			ug/Kg	2000	NA	67	27-125		
Surrogate: 2-Fluorophenol (SUR)	1234.378			ug/Kg	2000	NA	62	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1484.722			ug/Kg	2000	NA	74	41-125		
Method Blank (QC1210442MB1)		**Source: NA**			Prepared: 01/24/2018 Analyzed: 01/24/2019					
Total Cresol	ND		400	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		
Chrysene	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
4-Nitrophenol	ND		250	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210442 (Continued)										
Method Blank (QC1210442MB1)		**Source: NA**			Prepared: 01/24/2018 Analyzed: 01/24/2019					
Benz(a)anthracene	ND		250	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
Acenaphthylene	ND		250	ug/Kg		NA		-		
Acenaphthene	ND		250	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
Phenol	ND		250	ug/Kg		NA		-		
Phenanthrene	ND		250	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
Dibenzofuran	ND		250	ug/Kg		NA		-		
Naphthalene	ND		250	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
Fluorene	ND		250	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
Hexachloroethane	ND		250	ug/Kg		NA		-		
Nitrobenzene	ND		1200	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
3-Nitroaniline	ND		250	ug/Kg		NA		-		
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210442 (Continued)										
Method Blank (QC1210442MB1)		**Source: NA**		Prepared: 01/24/2018 Analyzed: 01/24/2019						
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
Surrogate: p-Terphenyl (SUR)	1494.516			ug/Kg	2000	NA	75	33-155		
Surrogate: Phenol-d5 (SUR)	1314.888			ug/Kg	2000	NA	66	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1164.808			ug/Kg	2000	NA	58	27-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	860.908			ug/Kg	2000	NA	43	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1354.192			ug/Kg	2000	NA	68	41-125		
Surrogate: 2-Fluorophenol (SUR)	1162.558			ug/Kg	2000	NA	58	13-153		
MS (QC1210442MS1)		**Source: NA**		Prepared: 01/24/2018 Analyzed: 01/25/2019						
3 and 4-Methylphenol (m and p-Cresol)	1700		400	ug/Kg	2000	ND	85	33-116		
4-Chloro-3-methylphenol	1700		250	ug/Kg	2000	ND	85	33-120		
4-Nitrophenol	1500		250	ug/Kg	2000	ND	75	37-107		
Acenaphthene	1600		250	ug/Kg	2000	ND	80	57-99		
Benzo(b)fluoranthene	1800		250	ug/Kg	2000	ND	90	59-126		
Chrysene	1900		250	ug/Kg	2000	ND	95	68-120		
N-Nitrosodi-n-propylamine (NDPA)	1700		250	ug/Kg	2000	ND	85	41-127		
2-Chlorophenol	1500		250	ug/Kg	2000	ND	75	42-102		
2,4-Dinitrotoluene	1700		250	ug/Kg	2000	ND	85	48-109		
2,4-Dimethylphenol	1300		250	ug/Kg	2000	ND	65	37-105		
2,4,5-Trichlorophenol	1700		250	ug/Kg	2000	ND	85	44-108		
1,4-Dichlorobenzene	1300		250	ug/Kg	2000	ND	65	39-95		
1,2,4-Trichlorobenzene	1400		250	ug/Kg	2000	ND	70	35-93		
Pentachlorophenol	1300		1200	ug/Kg	2000	ND	65	43-120		
Phenol	1700		250	ug/Kg	2000	ND	85	46-116		
Pyrene	1900		250	ug/Kg	2000	ND	95	53-129		
Surrogate: 2-Fluorophenol (SUR)	1388.664			ug/Kg	2000	NA	69	13-153		
Surrogate: Nitrobenzene-d5 (SUR)	1538.52			ug/Kg	2000	NA	77	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	1693.13			ug/Kg	2000	NA	85	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1642.363			ug/Kg	2000	NA	82	34-143		
Surrogate: p-Terphenyl (SUR)	1988.533			ug/Kg	2000	NA	99	33-155		
Surrogate: Phenol-d5 (SUR)	1706.166			ug/Kg	2000	NA	85	10-110		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210442 (Continued)										
MSD (QC1210442MSD1)		**Source: NA**		Prepared: 01/24/2018 Analyzed: 01/25/2019						
Phenol	1400		250	ug/Kg	2000	ND	70	46-116	19.4	30
4-Chloro-3-methylphenol	1500		250	ug/Kg	2000	ND	75	33-120	12.5	30
Pyrene	1600		250	ug/Kg	2000	ND	80	53-129	17.1	30
Pentachlorophenol	1200		1200	ug/Kg	2000	ND	60	43-120	8	30
Chrysene	1500		250	ug/Kg	2000	ND	75	68-120	23.5	30
Benzo(b)fluoranthene	1500		250	ug/Kg	2000	ND	75	59-126	18.2	30
N-Nitrosodi-n-propylamine (NDPA)	1500		250	ug/Kg	2000	ND	75	41-127	12.5	30
4-Nitrophenol	1400		250	ug/Kg	2000	ND	70	37-107	6.9	30
3 and 4-Methylphenol (m and p-Cresol)	1500		400	ug/Kg	2000	ND	75	33-116	12.5	30
2-Chlorophenol	1300		250	ug/Kg	2000	ND	65	42-102	14.3	30
2,4-Dimethylphenol	1100		250	ug/Kg	2000	ND	55	37-105	16.7	30
2,4,5-Trichlorophenol	1500		250	ug/Kg	2000	ND	75	44-108	12.5	30
1,4-Dichlorobenzene	1100		250	ug/Kg	2000	ND	55	39-95	16.7	30
1,2,4-Trichlorobenzene	1200		250	ug/Kg	2000	ND	60	35-93	15.4	30
Acenaphthene	1400		250	ug/Kg	2000	ND	70	57-99	13.3	30
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	ND	75	48-109	12.5	30
Surrogate: p-Terphenyl (SUR)	1633.71			ug/Kg	2000	NA	82	33-155		
Surrogate: Phenol-d5 (SUR)	1504.895			ug/Kg	2000	NA	75	10-110		
Surrogate: 2,4,6-Tribromophenol (SUR)	1506.203			ug/Kg	2000	NA	75	34-143		
Surrogate: Nitrobenzene-d5 (SUR)	1347.655			ug/Kg	2000	NA	67	27-125		
Surrogate: 2-Fluorophenol (SUR)	1205.791			ug/Kg	2000	NA	60	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1467.621			ug/Kg	2000	NA	73	41-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0032										
Blank (B9A0032-BLK1)				Prepared & Analyzed: 01/30/2019						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		5.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0032 (Continued)										
Blank (B9A0032-BLK1)				Prepared & Analyzed: 01/30/2019						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		5.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		20	µg/Kg						
Methyl Methacrylate	ND		5.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		20	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	53			µg/Kg	50.0		106	60-140		
Surrogate: 4-Bromofluorobenzene	53			µg/Kg	50.0		107	60-140		
Surrogate: 1,2-Dichloroethane-d4	54			µg/Kg	50.0		109	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.9	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0032 (Continued)										
LCS (B9A0032-BS1)				Prepared & Analyzed: 01/30/2019						
Allyl Chloride	42		1.0	µg/Kg	40.0		105	60-140		
Benzene	41		1.0	µg/Kg	40.0		102	70-130		
Bromobenzene	41		1.0	µg/Kg	40.0		102	70-130		
Bromodichloromethane	43		1.0	µg/Kg	40.0		108	70-130		
Bromoform	41		1.0	µg/Kg	40.0		103	70-130		
Chlorobenzene	39		1.0	µg/Kg	40.0		98.4	70-130		
Chloroethane	37		5.0	µg/Kg	40.0		92.1	70-130		
Chloroform	41		1.0	µg/Kg	40.0		102	70-130		
4-Chlorotoluene	41		1.0	µg/Kg	40.0		102	70-130		
Dibromomethane	42		1.0	µg/Kg	40.0		106	70-130		
1,2-Dichlorobenzene	39		1.0	µg/Kg	40.0		97.6	70-130		
1,1-Dichloroethene	35		1.0	µg/Kg	40.0		87.0	70-130		
1,2-Dichloropropane	41		1.0	µg/Kg	40.0		103	70-130		
2,2-Dichloropropane	41		1.0	µg/Kg	40.0		103	70-130		
1,1-Dichloropropene	41		1.0	µg/Kg	40.0		103	70-130		
Diethyl Ether	34		5.0	µg/Kg	40.0		85.7	70-130		
Diisopropyl Ether (DIPE)	40		1.0	µg/Kg	40.0		100	70-130		
Ethylbenzene	40		1.0	µg/Kg	40.0		101	70-130		
Hexachloro-1,3-Butadiene	39		1.0	µg/Kg	40.0		98.4	70-130		
Methylene Chloride	41		20	µg/Kg	40.0		102	70-130		
Methyl-t-Butyl Ether (MTBE)	40		1.0	µg/Kg	40.0		100	70-130		
Naphthalene	39		10	µg/Kg	40.0		97.8	70-130		
Styrene	42		1.0	µg/Kg	40.0		106	70-130		
tert-Butylbenzene	41		1.0	µg/Kg	40.0		104	70-130		
Tetrachloroethene	40		1.0	µg/Kg	40.0		98.9	70-130		
Toluene	41		1.0	µg/Kg	40.0		102	70-130		
1,2,3-Trichlorobenzene	39		1.0	µg/Kg	40.0		96.9	70-130		
Trichloroethene	40		1.0	µg/Kg	40.0		98.8	70-130		
1,3,5-Trimethylbenzene	44		1.0	µg/Kg	40.0		109	70-130		
Vinyl Chloride	34		1.0	µg/Kg	40.0		84.4	70-130		
Surrogate: Dibromofluoromethane	52			µg/Kg	50.0		104	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		103	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		101	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		101	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0032 (Continued)										
LCS Dup (B9A0032-BSD1)				Prepared & Analyzed: 01/30/2019						
Allyl Chloride	40		1.0	µg/Kg	40.0		101	60-140	3.99	20
Benzene	39		1.0	µg/Kg	40.0		97.1	70-130	5.09	20
Bromobenzene	40		1.0	µg/Kg	40.0		101	70-130	0.836	20
Bromodichloromethane	41		1.0	µg/Kg	40.0		102	70-130	5.85	20
Bromoform	41		1.0	µg/Kg	40.0		102	70-130	0.439	20
Chlorobenzene	40		1.0	µg/Kg	40.0		98.8	70-130	0.330	20
Chloroethane	35		5.0	µg/Kg	40.0		88.1	70-130	4.47	20
Chloroform	38		1.0	µg/Kg	40.0		95.7	70-130	5.95	20
4-Chlorotoluene	39		1.0	µg/Kg	40.0		98.5	70-130	3.59	20
Dibromomethane	42		1.0	µg/Kg	40.0		105	70-130	0.260	20
1,2-Dichlorobenzene	38		1.0	µg/Kg	40.0		94.1	70-130	3.62	20
1,1-Dichloroethene	35		1.0	µg/Kg	40.0		87.1	70-130	0.0287	20
1,2-Dichloropropane	41		1.0	µg/Kg	40.0		101	70-130	1.61	20
2,2-Dichloropropane	41		1.0	µg/Kg	40.0		102	70-130	1.51	20
1,1-Dichloropropene	39		1.0	µg/Kg	40.0		98.2	70-130	4.65	20
Diethyl Ether	33		5.0	µg/Kg	40.0		83.6	70-130	2.51	20
Diisopropyl Ether (DIPE)	39		1.0	µg/Kg	40.0		98.2	70-130	2.09	20
Ethylbenzene	40		1.0	µg/Kg	40.0		100	70-130	0.921	20
Hexachloro-1,3-Butadiene	38		1.0	µg/Kg	40.0		93.8	70-130	4.79	20
Methylene Chloride	40		20	µg/Kg	40.0		100	70-130	2.18	20
Methyl-t-Butyl Ether (MTBE)	39		1.0	µg/Kg	40.0		98.0	70-130	2.35	20
Naphthalene	40		10	µg/Kg	40.0		99.7	70-130	1.92	20
Styrene	42		1.0	µg/Kg	40.0		105	70-130	0.996	20
tert-Butylbenzene	40		1.0	µg/Kg	40.0		99.2	70-130	4.29	20
Tetrachloroethene	38		1.0	µg/Kg	40.0		95.7	70-130	3.29	20
Toluene	39		1.0	µg/Kg	40.0		98.0	70-130	4.00	20
1,2,3-Trichlorobenzene	38		1.0	µg/Kg	40.0		96.2	70-130	0.777	20
Trichloroethene	38		1.0	µg/Kg	40.0		94.2	70-130	4.82	20
1,3,5-Trimethylbenzene	43		1.0	µg/Kg	40.0		108	70-130	1.40	20
Vinyl Chloride	31		1.0	µg/Kg	40.0		78.1	70-130	7.78	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		101	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		97.4	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		100	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Notes and Definitions

Item	Definition
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
QM-PS	The percent recovery and/or RPD are outside acceptance criteria. Results accepted based upon percent recovery results in the post spike and/or serial dilution.
QR-04	The pecent recovery and/or RPD was outside acceptance criteria. Results accepted based upon percent recovery results in duplicate QC sample and the CCV and CCB results.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S-01	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference's.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL WO#: P901025

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH 8015 M	CrVI 7199	Total Metals 6020	SVOCs, PAHs 8270C
1	SW-3-0.5'	1/22/19	0914	S	2J	X	X	X	X
2	SW-3-2'	↓	0917	↓	2J	X	X	X	X
3	SW-3-5'	↓	0918	↓	2J	X	X	X	X
4									
5									
6									
7									
8									
9									
10									

REQUESTED ANALYSIS

PAL Containers used:	(Yes)	No
Type of Ice used:	(Wet)	Blue None
Sample Preservative:	Yes	(No)

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: (Yes) No

Type of EDD: EZEDD

Reciept Temp./ Initials: 3.2 °C MV
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: Brad A. McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 1/22/19
TIME: 11:00 Am

RECEIVED BY
Signature: MValenzuela
Print: MValenzuela
Company: PAL
DATE: 1/22/19
TIME: 1210

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-4479

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P901025

Cooler 1 OF 1

Client Langan

Date Received: 1/22/19

Courier (X) CLIENT (X) PALI ( ) OTHER _____ ( ) FEDEX ( ) UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	( ) Blank (X) Sample	3.2	0.0	3.2	TM-12

(X) WET ICE ( ) BLUE ICE ( ) AMBIENT ( ) OTHER _____

( ) Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ( ) Present and Intact ( ) Present and **NOT** Intact ( ) Seals signed and dated (X) Not Present

Sample Seal ( ) Present and Intact ( ) Present and **NOT** Intact ( ) Seals signed and dated (X) Not Present

CLIENT COC

(X) INCLUDED ( ) NOT INCLUDED

(X) Complete ( ) Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

(X) SOLID ( ) LIQUID ( ) AIR ( ) OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MW	1/22/19		

Performance Analytical Laboratories, Inc.

T190166

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901025

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Sun Star Laboratories, Inc.
25712 Commercentre Drive
Lake Forest, CA 92630
Phone :(949) 297-5020
Fax: .

	Analysis		Due	Comments
01	**Sample ID: SW-3-0.5'**	**Matrix:Solid**	**Sampled: 01/22/2019 09:14**	
	S_Hexavalent Chromium 7199		01/29/2019 15:00	
	S_Mercury 7471		01/29/2019 15:00	
	S_Metals Title 22 6020		01/29/2019 15:00	
	Containers Supplied:			
	Glass Jar, 4 oz (B)			
02	**Sample ID: SW-3-2'**	**Matrix:Solid**	**Sampled: 01/22/2019 09:17**	
	S_Hexavalent Chromium 7199		01/29/2019 15:00	
	S_Mercury 7471		01/29/2019 15:00	
	S_Metals Title 22 6020		01/29/2019 15:00	
	Containers Supplied:			
	Glass Jar, 4 oz (B)			
03	**Sample ID: SW-3-5'**	**Matrix:Solid**	**Sampled: 01/22/2019 09:18**	
	S_Hexavalent Chromium 7199		01/29/2019 15:00	
	S_Mercury 7471		01/29/2019 15:00	
	S_Metals Title 22 6020		01/29/2019 15:00	
	Containers Supplied:			
	Glass Jar, 4 oz (B)			

4.3

Released By	Date	Time	Received By	Date	Time
[signature]	1/22/19	1532	Ali Mehta	01/22/19	15:32
Ali Mehta	01/22/19	16:58	[signature]	1-22-19	16:58

SunStar Laboratories — Celebrating 20 Years!

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: 719066

Client Name: Performance Anal. Project: DTSC Riverside

Delivered by: ☐ Client ☒ SunStar Courier ☐ GSO ☐ FedEx ☐ Other

If Courier, Received by: Alexandra Date/Time Courier Received: 1.22.19 / 15:32

Lab Received by: Sunny Date/Time Lab Received: 1.22.19 / 16:58

Total number of coolers received: 0

Temperature:	Cooler #1 3.1	°C +/- the CF (1.2°C) = 4.3		°C corrected temperature
Temperature:	Cooler #2	°C +/- the CF (1.2°C) =		°C corrected temperature
Temperature:	Cooler #3	°C +/- the CF (1.2°C) =		°C corrected temperature
Temperature criteria = ≤ 6°C (no frozen containers)		Within criteria?	☒ **Yes**	☐ **No**
If NO:				
Samples received on ice?		☐ Yes	☐ **No → Complete Non-Conformance Sheet**	
If on ice, samples received same day collected?		☐ Yes → Acceptable	☐ **No → Complete Non-Conformance Sheet**	

Custody seals intact on cooler/sample	☐ Yes	☐ No*	☒ N/A
Sample containers intact	☒ Yes	☐ No*	
Sample labels match Chain of Custody IDs	☒ Yes	☐ No*	
Total number of containers received match COC	☒ Yes	☐ No*	
Proper containers received for analyses requested on COC	☒ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☒ N/A
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times	☒ **Yes**	☐ **No***	

* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date: SL 1.22.19

Comments:

SunStar Laboratories

(949) 297-5020 ■ www.sunstarlabs.com ■ 25712 Commercentre Drive ■ Lake Forest, CA 92630

Performance Analytical Laboratories, Inc.

411499

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901025

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	Due	Comments
Sample ID: SW-3-0.5' **Matrix:Solid**	**Sampled: 01/22/2019 09:14**	
S_PAH 8270 SIM	01/29/2019 15:00	
S_SVOA 8270C	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (C)		
Sample ID: SW-3-2' **Matrix:Solid**	**Sampled: 01/22/2019 09:17**	
S_PAH 8270 SIM	01/29/2019 15:00	
S_SVOA 8270C	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (C)		
Sample ID: SW-3-5' **Matrix:Solid**	**Sampled: 01/22/2019 09:18**	
S_PAH 8270 SIM	01/29/2019 15:00	
S_SVOA 8270C	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (C)		

Released By	Date	Time	Received By	Date	Time
	1/23/19	1342		1/23/19	1342
	1/23/19	1510		1/23/19	1530

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: _____

Date Received: 1/23/19 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 4.6 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.3 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 1/23/19

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

Performance Analytical Laboratories, Inc.

ELAP 2960

February 18, 2019

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : DTSC Riverside

Work Order: P901027

Dear Brad McCardell

Enclosed are the results of analyses for samples received by our laboratory on 1/23/2019. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 17

Qualifiers and Definitions 28

Chain of Custody PDFs 29

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P901027-01	SW-2-0.5'		Solid	01/23/2019	01/23/2019
P901027-02	SW-2-2'		Solid	01/23/2019	01/23/2019
P901027-03	CQ-1-0.5'		Solid	01/23/2019	01/23/2019
P901027-04	CQ-1-1.5'		Solid	01/23/2019	01/23/2019
P901027-05	CQ-2-0.5'		Solid	01/23/2019	01/23/2019
P901027-06	CQ-2-2'		Solid	01/23/2019	01/23/2019
P901027-07	CQ-3-0.5'		Solid	01/23/2019	01/23/2019
P901027-08	CQ-3-2'		Solid	01/23/2019	01/23/2019
P901027-09	OS-8-10'		Solid	01/23/2019	01/23/2019

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-2-0.5' **P901027-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**23**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**110**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	**0.38**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	**0.50**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**42**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**6.9**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**16**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**19**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Molybdenum	**2.7**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**16**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	**2.5**	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Vanadium	**34**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**46**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-2-2' **P901027-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**9.2**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**68**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	**0.39**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	**0.32**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**20**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**7.5**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**17**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**12**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Molybdenum	**0.98**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**17**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Vanadium	**32**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**46**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CQ-1-0.5' **P901027-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**13**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**93**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	**0.52**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	**0.27**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**28**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**9.7**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**24**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**14**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Molybdenum	**1.4**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**23**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Vanadium	**44**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**61**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CQ-1-1.5' **P901027-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**11**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**77**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	**0.35**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	**0.50**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**22**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**6.1**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**17**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**13**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Molybdenum	**1.3**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**15**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	**2.3**	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Vanadium	**29**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**44**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CQ-2-0.5' **P901027-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**13**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**76**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	**0.41**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	**0.58**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**22**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**7.2**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**17**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**18**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Molybdenum	**0.88**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**16**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	**1.2**	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Vanadium	**33**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**53**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CQ-2-2' **P901027-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**10**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**73**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	**0.42**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	**0.44**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**23**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**7.3**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**18**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**15**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Molybdenum	**0.81**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**17**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Vanadium	**32**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**55**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CQ-3-0.5' **P901027-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**15**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**85**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	**0.29**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	**0.34**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**25**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**5.6**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**13**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**27**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Molybdenum	**1.2**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**13**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	**1.3**	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Vanadium	**26**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**58**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CQ-3-2' **P901027-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**8.3**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**72**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	**0.40**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**21**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**8.3**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**19**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**8.4**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Molybdenum	**0.55**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**19**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Vanadium	**37**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**53**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-10' **P901027-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022)							
C7-C8	ND	mg/kg	1	10.0	01/25/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/25/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/25/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/25/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/25/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/25/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/25/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/25/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/25/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/25/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/25/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/25/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	100%			60-140	01/25/2019	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals by ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**1.1**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**130**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**13**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**7.4**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**3.2**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**1.0**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**4.9**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-10' (Continued) **P901027-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals by ICP-MS_Subcontract (Batch ID: 9012509) (Continued)							
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	**0.30**	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Vanadium	**39**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**41**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
PAH-SIM_Subcontract (Batch ID: QC1210443)							
1-Methylnaphthalene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	01/25/2019	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	64%			30-120	01/25/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	81%			27-125	01/25/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	64%			33-155	01/25/2019	EPA 8270CM	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-10' (Continued) **P901027-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	01/25/2019	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	01/25/2019	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	01/25/2019	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Aniline	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	01/25/2019	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	01/25/2019	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-10' (Continued) **P901027-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	01/25/2019	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	01/25/2019	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	01/25/2019	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	01/25/2019	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Phenol	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	01/25/2019	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	01/25/2019	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	49%			34-143	01/25/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	67%			41-125	01/25/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	59%			13-153	01/25/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-10' (Continued) **P901027-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
Surrogate: Nitrobenzene-d5 (SUR)	60%			27-125	01/25/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	67%			10-110	01/25/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	76%			33-155	01/25/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0022										
Blank (B9A0022-BLK1)				Prepared & Analyzed: 01/24/2019						
C7-C8	ND		10.0	mg/kg						
C9-C10	ND		10.0	mg/kg						
C11-C12	ND		10.0	mg/kg						
C13-C14	ND		10.0	mg/kg						
C15-C16	ND		10.0	mg/kg						
C17-C18	ND		10.0	mg/kg						
C19-C20	ND		10.0	mg/kg						
C21-C22	ND		10.0	mg/kg						
C23-C24	ND		10.0	mg/kg						
C25-C27	ND		10.0	mg/kg						
C28-C33	ND		10.0	mg/kg						
C34-C40	ND		10.0	mg/kg						
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.04		95.1	60-140		
LCS (B9A0022-BS1)				Prepared & Analyzed: 01/24/2019						
Diesel	44.4		10.0	mg/kg	50.0		88.9	70-130		
Surrogate: n-Octacosane (c28)	2.07			mg/kg	2.04		101	60-140		
LCS Dup (B9A0022-BSD1)				Prepared & Analyzed: 01/24/2019						
Diesel	45.4		10.0	mg/kg	50.0		90.8	70-130	2.09	20
Surrogate: n-Octacosane (c28)	2.01			mg/kg	2.04		98.4	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012412										
Blank (9012412-BLK1)				Prepared: 01/24/2019 Analyzed: 01/28/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9012412-BS1)				Prepared: 01/24/2019 Analyzed: 01/28/2019						
Hexavalent Chromium	10300		200	ug/kg	10000		103	80-120		
Matrix Spike (9012412-MS1)		**Source: T190161-24**		Prepared: 01/24/2019 Analyzed: 01/28/2019						
Hexavalent Chromium	9650		200	ug/kg	10000	ND	96.5	75-125		
Matrix Spike Dup (9012412-MSD1)		**Source: T190161-24**		Prepared: 01/24/2019 Analyzed: 01/28/2019						
Hexavalent Chromium	9560		200	ug/kg	9880	ND	96.8	75-125	0.920	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012523										
Blank (9012523-BLK1)				Prepared & Analyzed: 01/25/2019						
Mercury	ND		0.10	mg/kg						
LCS (9012523-BS1)				Prepared & Analyzed: 01/25/2019						
Mercury	0.361		0.10	mg/kg	0.417		86.7	80-120		
Matrix Spike (9012523-MS1)		**Source: T190161-01**		Prepared & Analyzed: 01/25/2019						
Mercury	0.392		0.10	mg/kg	0.397	0.0387	89.1	75-125		
Matrix Spike Dup (9012523-MSD1)		**Source: T190161-01**		Prepared & Analyzed: 01/25/2019						
Mercury	0.420		0.10	mg/kg	0.410	0.0387	93.1	75-125	6.89	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Metals by ICP-MS_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012509										
Blank (9012509-BLK1)				Prepared: 01/25/2019 Analyzed: 01/28/2019						
Antimony	ND		0.25	mg/kg						
Arsenic	ND		0.25	mg/kg						
Barium	ND		0.25	mg/kg						
Beryllium	ND		0.25	mg/kg						
Cadmium	ND		0.25	mg/kg						
Chromium	ND		0.25	mg/kg						
Cobalt	ND		0.25	mg/kg						
Copper	ND		0.25	mg/kg						
Lead	ND		0.25	mg/kg						
Mercury	ND		0.025	mg/kg						
Molybdenum	ND		0.25	mg/kg						
Nickel	ND		0.25	mg/kg						
Selenium	ND		1.2	mg/kg						
Silver	ND		0.25	mg/kg						
Thallium	ND		0.25	mg/kg						
Vanadium	ND		0.25	mg/kg						
Zinc	ND		0.25	mg/kg						
Duplicate (9012509-DUP1)		**Source: T190161-23**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	7.05		1.2	mg/kg		7.06			0.184	20
Barium	51.6		1.2	mg/kg		46.5			10.5	20
Cadmium	0.605		1.2	mg/kg		0.514			16.3	20
Chromium	16.0		1.2	mg/kg		13.8			14.9	20
Lead	10.7		1.2	mg/kg		9.70			9.96	20
LCS (9012509-BS1)				Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	21.8		0.25	mg/kg	25.0		87.2	80-120		
Barium	22.1		0.25	mg/kg	25.0		88.5	80-120		
Cadmium	22.4		0.25	mg/kg	25.0		89.5	80-120		
Chromium	22.5		0.25	mg/kg	25.0		90.0	80-120		
Lead	22.6		0.25	mg/kg	25.0		90.6	80-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Metals by ICP-MS_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012509 (Continued)										
Matrix Spike (9012509-MS2)		**Source: T190161-24**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	26.3		0.25	mg/kg	25.0	2.32	96.1	75-125		
Arsenic	37.0	QM-PS	0.25	mg/kg	22.9	7.06	130	75-125		
Barium	41.0		0.25	mg/kg	25.0	18.1	91.5	75-125		
Barium	97.5	QM-PS	0.25	mg/kg	22.9	46.5	223	75-125		
Cadmium	23.1		0.25	mg/kg	25.0	0.0778	92.1	75-125		
Cadmium	27.2		0.25	mg/kg	22.9	0.514	116	75-125		
Chromium	42.8		0.25	mg/kg	25.0	19.0	95.2	75-125		
Chromium	49.7	QM-PS	0.25	mg/kg	22.9	13.8	157	75-125		
Lead	30.2		0.25	mg/kg	25.0	6.22	95.8	75-125		
Lead	44.3	QM-05	0.25	mg/kg	22.9	9.70	151	75-125		
Matrix Spike Dup (9012509-MSD1)		**Source: T190161-23**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	29.9	QM-PS	0.25	mg/kg	23.4	7.06	97.7	75-125	21.2	20
Barium	70.5	QM-PS	0.25	mg/kg	23.4	46.5	103	75-125	32.2	20
Cadmium	21.7	QR-04	0.25	mg/kg	23.4	0.514	90.8	75-125	22.4	20
Chromium	37.5	QM-PS	0.25	mg/kg	23.4	13.8	101	75-125	28.1	20
Lead	30.5	QM-05	0.25	mg/kg	23.4	9.70	89.0	75-125	37.0	20
Post Spike (9012509-PS1)		**Source: T190161-23**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	28.3			ug/kg	25.0	7.06	84.9	80-120		
Barium	70.2			ug/kg	25.0	46.5	94.7	80-120		
Cadmium	21.5			ug/kg	25.0	0.514	84.0	80-120		
Chromium	36.1			ug/kg	25.0	13.8	89.3	80-120		
Lead	31.7			ug/kg	25.0	9.70	87.8	80-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

PAH-SIM_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210443										
LCS (QC1210443LCS1)		**Source: NA**		Prepared: 01/24/2019 Analyzed: 01/25/2019						
Pyrene	50		10	ug/Kg	50	NA	100	68-134	0	0
Benzo(a)pyrene	64		10	ug/Kg	50	NA	128	36-168	0	0
Acenaphthene	47		10	ug/Kg	50	NA	94	58-130	0	0
1-Methylnaphthalene	48		10	ug/Kg	50	NA	96	38-130	0	0
Acenaphthylene	51		10	ug/Kg	50	NA	102	52-130	0	0
Benz(a)anthracene	61		10	ug/Kg	50	NA	122	61-147	0	0
2-Methylnaphthalene	53		10	ug/Kg	50	NA	106	59-130	0	0
Benzo(b)fluoranthene	63		10	ug/Kg	50	NA	126	63-147	0	0
Naphthalene	46		10	ug/Kg	50	NA	92	50-130	0	0
Phenanthrene	47		10	ug/Kg	50	NA	94	65-132	0	0
Anthracene	51		10	ug/Kg	50	NA	102	55-136	0	0
Benzo(g,h,i)perylene	53		10	ug/Kg	50	NA	106	54-135	0	0
Indeno(1,2,3-cd)pyrene	59		10	ug/Kg	50	NA	118	58-144	0	0
Fluorene	49		10	ug/Kg	50	NA	98	63-130	0	0
Fluoranthene	54		10	ug/Kg	50	NA	108	68-139	0	0
Dibenz(a,h)anthracene	53		10	ug/Kg	50	NA	106	52-144	0	0
Chrysene	44		10	ug/Kg	50	NA	88	66-130	0	0
Benzo(k)fluoranthene	57		10	ug/Kg	50	NA	114	64-142	0	0
Surrogate: 2-Fluorobiphenyl (SUR)	45.65			ug/Kg	50	NA	91	30-120		
Surrogate: p-Terphenyl (SUR)	48.34			ug/Kg	50	NA	97	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	42.201			ug/Kg	50	NA	84	27-125		
Method Blank (QC1210443MB1)		**Source: NA**		Prepared & Analyzed: 01/24/2019						
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
Benzo(a)pyrene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
Acenaphthene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Acenaphthylene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Fluoranthene	ND		10	ug/Kg		NA		-		
Fluorene	ND		10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Phenanthrene	ND		10	ug/Kg		NA		-		
Pyrene	ND		10	ug/Kg		NA		-		
Chrysene	ND		10	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		10	ug/Kg		NA		-		
Surrogate: 2-Fluorobiphenyl (SUR)	30.52			ug/Kg	50	NA	61	30-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

PAH-SIM_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210443 (Continued)										
Method Blank (QC1210443MB1)		**Source: NA**			Prepared & Analyzed: 01/24/2019					
Surrogate: Nitrobenzene-d5 (SUR)	31.426			ug/Kg	50	NA	63	27-125		
Surrogate: p-Terphenyl (SUR)	33.192			ug/Kg	50	NA	66	33-155		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210442										
LCS (QC1210442LCS1)		**Source: NA**		Prepared: 01/24/2018 Analyzed: 01/25/2019						
Pyrene	1600		250	ug/Kg	2000	NA	80	63-119	0	0
Phenol	1500		250	ug/Kg	2000	NA	75	51-111	0	0
1,2,4-Trichlorobenzene	1300		250	ug/Kg	2000	NA	65	43-111	0	0
1,4-Dichlorobenzene	1300		250	ug/Kg	2000	NA	65	30-116	0	0
2,4,5-Trichlorophenol	1400		250	ug/Kg	2000	NA	70	57-125	0	0
2,4-Dimethylphenol	1300		250	ug/Kg	2000	NA	65	50-112	0	0
4-Chloro-3-methylphenol	1400		250	ug/Kg	2000	NA	70	61-122	0	0
2-Chlorophenol	1400		250	ug/Kg	2000	NA	70	48-114	0	0
Pentachlorophenol	1200		1200	ug/Kg	2000	NA	60	41-103	0	0
3 and 4-Methylphenol (m and p-Cresol)	1600		400	ug/Kg	2000	NA	80	56-124	0	0
4-Nitrophenol	1300		250	ug/Kg	2000	NA	65	54-126	0	0
Acenaphthene	1400		250	ug/Kg	2000	NA	70	53-112	0	0
Benzo(b)fluoranthene	1400		250	ug/Kg	2000	NA	70	61-125	0	0
Chrysene	1600		250	ug/Kg	2000	NA	80	59-117	0	0
N-Nitrosodi-n-propylamine (NDPA)	1500		250	ug/Kg	2000	NA	75	54-110	0	0
2,4-Dinitrotoluene	1400		250	ug/Kg	2000	NA	70	57-124	0	0
Surrogate: p-Terphenyl (SUR)	1626.328			ug/Kg	2000	NA	81	33-155		
Surrogate: Phenol-d5 (SUR)	1454.582			ug/Kg	2000	NA	73	10-110		
Surrogate: 2-Fluorophenol (SUR)	1234.378			ug/Kg	2000	NA	62	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1484.722			ug/Kg	2000	NA	74	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1351.88			ug/Kg	2000	NA	68	34-143		
Surrogate: Nitrobenzene-d5 (SUR)	1338.4			ug/Kg	2000	NA	67	27-125		
Method Blank (QC1210442MB1)		**Source: NA**		Prepared: 01/24/2018 Analyzed: 01/24/2019						
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		
Benz(a)anthracene	ND		250	ug/Kg		NA		-		
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
Total Cresol	ND		400	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
Phenol	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210442 (Continued)										
Method Blank (QC1210442MB1)		**Source: NA**			Prepared: 01/24/2018 Analyzed: 01/24/2019					
Phenanthrene	ND		250	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
Acenaphthylene	ND		250	ug/Kg		NA		-		
Acenaphthene	ND		250	ug/Kg		NA		-		
4-Nitrophenol	ND		250	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		
3-Nitroaniline	ND		250	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
Nitrobenzene	ND		1200	ug/Kg		NA		-		
Naphthalene	ND		250	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
Hexachloroethane	ND		250	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
Fluorene	ND		250	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Dibenzofuran	ND		250	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210442 (Continued)										
Method Blank (QC1210442MB1)		**Source: NA**			Prepared: 01/24/2018 Analyzed: 01/24/2019					
Chrysene	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
Surrogate: 2,4,6-Tribromophenol (SUR)	860.908			ug/Kg	2000	NA	43	34-143		
Surrogate: p-Terphenyl (SUR)	1494.516			ug/Kg	2000	NA	75	33-155		
Surrogate: Phenol-d5 (SUR)	1314.888			ug/Kg	2000	NA	66	10-110		
Surrogate: 2-Fluorophenol (SUR)	1162.558			ug/Kg	2000	NA	58	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1354.192			ug/Kg	2000	NA	68	41-125		
Surrogate: Nitrobenzene-d5 (SUR)	1164.808			ug/Kg	2000	NA	58	27-125		
MS (QC1210442MS1)		**Source: NA**			Prepared: 01/24/2018 Analyzed: 01/25/2019					
Chrysene	1900		250	ug/Kg	2000	ND	95	68-120	0	0
Benzo(b)fluoranthene	1800		250	ug/Kg	2000	ND	90	59-126	0	0
Acenaphthene	1600		250	ug/Kg	2000	ND	80	57-99	0	0
4-Nitrophenol	1500		250	ug/Kg	2000	ND	75	37-107	0	0
4-Chloro-3-methylphenol	1700		250	ug/Kg	2000	ND	85	33-120	0	0
3 and 4-Methylphenol (m and p-Cresol)	1700		400	ug/Kg	2000	ND	85	33-116	0	0
2-Chlorophenol	1500		250	ug/Kg	2000	ND	75	42-102	0	0
Pentachlorophenol	1300		1200	ug/Kg	2000	ND	65	43-120	0	0
2,4-Dimethylphenol	1300		250	ug/Kg	2000	ND	65	37-105	0	0
Phenol	1700		250	ug/Kg	2000	ND	85	46-116	0	0
2,4,5-Trichlorophenol	1700		250	ug/Kg	2000	ND	85	44-108	0	0
1,4-Dichlorobenzene	1300		250	ug/Kg	2000	ND	65	39-95	0	0
1,2,4-Trichlorobenzene	1400		250	ug/Kg	2000	ND	70	35-93	0	0
2,4-Dinitrotoluene	1700		250	ug/Kg	2000	ND	85	48-109	0	0
N-Nitrosodi-n-propylamine (NDPA)	1700		250	ug/Kg	2000	ND	85	41-127	0	0
Pyrene	1900		250	ug/Kg	2000	ND	95	53-129	0	0
Surrogate: 2,4,6-Tribromophenol (SUR)	1642.363			ug/Kg	2000	NA	82	34-143		
Surrogate: Nitrobenzene-d5 (SUR)	1538.52			ug/Kg	2000	NA	77	27-125		
Surrogate: 2-Fluorophenol (SUR)	1388.664			ug/Kg	2000	NA	69	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1693.13			ug/Kg	2000	NA	85	41-125		
Surrogate: p-Terphenyl (SUR)	1988.533			ug/Kg	2000	NA	99	33-155		
Surrogate: Phenol-d5 (SUR)	1706.166			ug/Kg	2000	NA	85	10-110		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210442 (Continued)										
MSD (QC1210442MSD1)		**Source: NA**			Prepared: 01/24/2018 Analyzed: 01/25/2019					
Pyrene	1600		250	ug/Kg	2000	ND	80	53-129	17.1	30
Phenol	1400		250	ug/Kg	2000	ND	70	46-116	19.4	30
Pentachlorophenol	1200		1200	ug/Kg	2000	ND	60	43-120	8	30
N-Nitrosodi-n-propylamine (NDPA)	1500		250	ug/Kg	2000	ND	75	41-127	12.5	30
Chrysene	1500		250	ug/Kg	2000	ND	75	68-120	23.5	30
Benzo(b)fluoranthene	1500		250	ug/Kg	2000	ND	75	59-126	18.2	30
Acenaphthene	1400		250	ug/Kg	2000	ND	70	57-99	13.3	30
4-Nitrophenol	1400		250	ug/Kg	2000	ND	70	37-107	6.9	30
3 and 4-Methylphenol (m and p-Cresol)	1500		400	ug/Kg	2000	ND	75	33-116	12.5	30
2-Chlorophenol	1300		250	ug/Kg	2000	ND	65	42-102	14.3	30
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	ND	75	48-109	12.5	30
2,4-Dimethylphenol	1100		250	ug/Kg	2000	ND	55	37-105	16.7	30
2,4,5-Trichlorophenol	1500		250	ug/Kg	2000	ND	75	44-108	12.5	30
1,4-Dichlorobenzene	1100		250	ug/Kg	2000	ND	55	39-95	16.7	30
1,2,4-Trichlorobenzene	1200		250	ug/Kg	2000	ND	60	35-93	15.4	30
4-Chloro-3-methylphenol	1500		250	ug/Kg	2000	ND	75	33-120	12.5	30
Surrogate: 2-Fluorophenol (SUR)	1205.791			ug/Kg	2000	NA	60	13-153		
Surrogate: p-Terphenyl (SUR)	1633.71			ug/Kg	2000	NA	82	33-155		
Surrogate: Phenol-d5 (SUR)	1504.895			ug/Kg	2000	NA	75	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1347.655			ug/Kg	2000	NA	67	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	1467.621			ug/Kg	2000	NA	73	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1506.203			ug/Kg	2000	NA	75	34-143		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Notes and Definitions

Item	Definition
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
QM-PS	The percent recovery and/or RPD are outside acceptance criteria. Results accepted based upon percent recovery results in the post spike and/or serial dilution.
QR-04	The pecent recovery and/or RPD was outside acceptance criteria. Results accepted based upon percent recovery results in duplicate QC sample and the CCV and CCB results.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL WO#: P901027

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	NShukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020	TPH 8015M	SVOCs, PAHs 8270C									
1	SW-2-0.5'	1/22/19	1144	S	1J	X	X											
2	SW-2-2'	1/22/19	1146	S	1J	X	X											
3	CQ-1-0.5'		1335			X	X											
4	CQ-1-1.5'		1341			X	X											
5	CQ-2-0.5'		1325			X	X											
6	CQ-2-2'		1327			X	X											
7	CQ-3-0.5'		1344			X	X											
8	CQ-3-2'		1346			X	X											
9	OS-8-10'		1458		2J	X	X	X	X									
10																		

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD 5 day) RUSH 24 48 72

EDD Required - Circle one: (Yes) No

Type of EDD: EZEDD

Reciept Temp./ Initials: (Temp recorded is not corrected) 0.3°C MV

Note: OS-8-10' should be run for VOCs, which were previously provided on 1/21/2019 (sample date) in VOAs.

RELINQUISHED BY
Signature: [signature]
Print: Brad A. McCardell
Company: Langan
DATE: 1/23/19
TIME: 610 PM

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 1/23/19
TIME: 610

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-4513

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P901027

Cooler 1 OF 1

Client Langan

Date Received: 1/23/19

Courier (X) CLIENT ( ) PALI ( ) OTHER _____ ( ) FEDEX ( ) UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	( ) Blank (X) Sample	0.3	0.0	0.3	TM-12

(X) WET ICE ( ) BLUE ICE ( ) AMBIENT ( ) OTHER _____

( ) Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ( ) Present and Intact ( ) Present and **NOT** Intact ( ) Seals signed and dated (X) Not Present

Sample Seal ( ) Present and Intact ( ) Present and **NOT** Intact ( ) Seals signed and dated (X) Not Present

CLIENT COC

(X) INCLUDED ( ) NOT INCLUDED

(X) Complete ( ) Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

(X) SOLID ( ) LIQUID ( ) AIR ( ) OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MV	1/23/19		

Performance Analytical Laboratories, Inc.

-1.2

T190176

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901027

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Sun Star Laboratories, Inc.
25712 Commercentre Drive
Lake Forest, CA 92630
Phone :(949) 297-5020
Fax: .

	Analysis		Due	Comments
01	**Sample ID: SW-2-0.5'**	**Matrix:Solid**	**Sampled: 01/23/2019 11:44**	
	S_Hexavalent Chromium 7199		01/30/2019 15:00	
	S_Mercury 7471		01/30/2019 15:00	
	S_Metals Title 22 6020		01/30/2019 15:00	
	Containers Supplied:			
	Glass Jar, 4 oz (A)			
02	**Sample ID: SW-2-2'**	**Matrix:Solid**	**Sampled: 01/23/2019 11:46**	
	S_Hexavalent Chromium 7199		01/30/2019 15:00	
	S_Mercury 7471		01/30/2019 15:00	
	S_Metals Title 22 6020		01/30/2019 15:00	
	Containers Supplied:			
	Glass Jar, 4 oz (A)			
03	**Sample ID: CQ-1-0.5'**	**Matrix:Solid**	**Sampled: 01/23/2019 13:35**	
	S_Hexavalent Chromium 7199		01/30/2019 15:00	
	S_Mercury 7471		01/30/2019 15:00	
	S_Metals Title 22 6020		01/30/2019 15:00	
	Containers Supplied:			
	Glass Jar, 4 oz (A)			
04	**Sample ID: CQ-1-1.5'**	**Matrix:Solid**	**Sampled: 01/23/2019 13:41**	
	S_Hexavalent Chromium 7199		01/30/2019 15:00	
	S_Mercury 7471		01/30/2019 15:00	
	S_Metals Title 22 6020		01/30/2019 15:00	
	Containers Supplied:			
	Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
	1/23/19	11:44		1/23/19	11:45
	1/23/19	13:15		1.23.19	13:15

Performance Analytical Laboratories, Inc.

-1.2

T190176

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901027

Analysis	Due	Comments
05 Sample ID: CQ-2-0.5' **Matrix:Solid** **Sampled: 01/23/2019 13:25**		
S_Hexavalent Chromium 7199	01/30/2019 15:00	
S_Mercury 7471	01/30/2019 15:00	
S_Metals Title 22 6020	01/30/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
06 Sample ID: CQ-2-2' **Matrix:Solid** **Sampled: 01/23/2019 13:27**		
S_Hexavalent Chromium 7199	01/30/2019 15:00	
S_Mercury 7471	01/30/2019 15:00	
S_Metals Title 22 6020	01/30/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
07 Sample ID: CQ-3-0.5' **Matrix:Solid** **Sampled: 01/23/2019 13:44**		
S_Hexavalent Chromium 7199	01/30/2019 15:00	
S_Mercury 7471	01/30/2019 15:00	
S_Metals Title 22 6020	01/30/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
08 Sample ID: CQ-3-2' **Matrix:Solid** **Sampled: 01/23/2019 13:46**		
S_Hexavalent Chromium 7199	01/30/2019 15:00	
S_Mercury 7471	01/30/2019 15:00	
S_Metals Title 22 6020	01/30/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
09 Sample ID: OS-8-10' **Matrix:Solid** **Sampled: 01/23/2019 14:58**		
S_Hexavalent Chromium 7199	01/30/2019 15:00	
S_Mercury 7471	01/30/2019 15:00	
S_Metals Title 22 6020	01/30/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (B)		

Released By	Date	Time	Received By	Date	Time
	11/23/19	11:44		1/23/19	11:45
	1/23/19	13:15		1:23:19	13:15

SunStar Laboratories — Celebrating 20 Years!

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T190176

Client Name: Performance Anal. Project: DTSC Riverside

Delivered by: ☐ Client ☒ SunStar Courier ☐ GSO ☐ FedEx ☐ Other

If Courier, Received by: Keith Date/Time Courier Received: 1.23.19 / 11:45

Lab Received by: Sunny Date/Time Lab Received: 1.23.19 / 19:15

Total number of coolers received: 1

Temperature: Cooler #1	0 °C +/- the CF (1.2°C) =	-1.2	°C corrected temperature
Temperature: Cooler #2	°C +/- the CF (1.2°C) =		°C corrected temperature
Temperature: Cooler #3	°C +/- the CF (1.2°C) =		°C corrected temperature
Temperature criteria = ≤ 6°C (no frozen containers)	Within criteria?	☒ Yes	☐ No
If NO:			
Samples received on ice?	☐ Yes	☐ No → **Complete Non-Conformance Sheet**	
If on ice, samples received same day collected?	☐ Yes → Acceptable	☐ No → **Complete Non-Conformance Sheet**	

Custody seals intact on cooler/sample	☐ Yes	☐ No*	☒ N/A
Sample containers intact	☒ Yes	☐ No*	
Sample labels match Chain of Custody IDs	☒ Yes	☐ No*	
Total number of containers received match COC	☒ Yes	☐ No*	
Proper containers received for analyses requested on COC	☒ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☒ N/A
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times	☒ **Yes**	☐ **No***	

* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date: SL 1.23.19

Comments:

SunStar Laboratories

(949) 297-5020 ■ www.sunstarlabs.com ■ 25712 Commercentre Drive ■ Lake Forest, CA 92630

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

411476

Work Order ID: P901027

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	Due	Comments
Sample ID: OS-8-10' **Matrix:Solid**	**Sampled: 01/23/2019 14:58**	
S_PAH 8270 SIM	01/30/2019 15:00	
S_SVOA 8270C	01/30/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (C)		

Released By	Date	Time	Received By	Date	Time
[signature]	1/23/19	1342	[signature]	1/23/19	1342
[signature]	1/23/19	1510	[signature]		

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: _____

Date Received: 1/23/19 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 4.6 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.3 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 1/23/19

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

Performance Analytical Laboratories, Inc.

ELAP 2960

February 19, 2019

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : DTSC Riverside

Work Order: P901022

Dear Brad McCardell

Enclosed are the results of analyses for samples received by our laboratory on 1/19/2019. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 50

Qualifiers and Definitions 68

Chain of Custody PDFs 69

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P901022-01	OS-11-0.5'		Solid	01/18/2019	01/19/2019
P901022-02	OS-11-1'		Solid	01/18/2019	01/19/2019
P901022-03	OS-11-2'		Solid	01/18/2019	01/19/2019
P901022-04	OS-11-5'		Solid	01/18/2019	01/19/2019
P901022-05	SW-1-0.5'		Solid	01/18/2019	01/19/2019
P901022-06	SW-1-2'		Solid	01/18/2019	01/19/2019
P901022-07	SW-1-C-5'		Solid	01/18/2019	01/19/2019
P901022-08	SW-1-B-5'		Solid	01/18/2019	01/19/2019
P901022-09	TL-4-0.5'		Solid	01/18/2019	01/19/2019
P901022-10	TL-4-2'		Solid	01/18/2019	01/19/2019
P901022-11	TL-4-5'		Solid	01/18/2019	01/19/2019
P901022-12	VP-5-0.5'		Solid	01/18/2019	01/19/2019
P901022-13	VP-5-2'		Solid	01/18/2019	01/19/2019
P901022-14	VP-5-5'		Solid	01/18/2019	01/19/2019
P901022-15	CKDSP5-S01-0.5'		Solid	01/18/2019	01/19/2019
P901022-16	CKDSP5-S01-2'		Solid	01/18/2019	01/19/2019
P901022-17	CKDSP5-S01-5'		Solid	01/18/2019	01/19/2019
P901022-18	CKDSP5-S02-0.5'		Solid	01/18/2019	01/19/2019
P901022-19	CKDSP5-S02-2'		Solid	01/18/2019	01/19/2019
P901022-20	CKDSP5-S02-5'		Solid	01/18/2019	01/19/2019
P901022-21	CKDSP5-S05-0.5'		Solid	01/18/2019	01/19/2019
P901022-22	CKDSP5-S05-2'		Solid	01/18/2019	01/19/2019
P901022-23	CKDSP5-S05-5'		Solid	01/18/2019	01/19/2019
P901022-24	CKDSP5-S04-0.5'		Solid	01/18/2019	01/19/2019
P901022-25	CKDSP5-S04-2'		Solid	01/18/2019	01/19/2019
P901022-26	CKDSP5-S04-5'		Solid	01/18/2019	01/19/2019
P901022-27	CKDSP5-S03-0.5'		Solid	01/18/2019	01/19/2019
P901022-28	CKDSP5-S03-2'		Solid	01/18/2019	01/19/2019
P901022-29	CKDSP5-S03-5'		Solid	01/18/2019	01/19/2019
P901022-30	WC-2-0.5'		Solid	01/18/2019	01/19/2019
P901022-31	WC-2-2'		Solid	01/18/2019	01/19/2019
P901022-32	WC-2-5'		Solid	01/18/2019	01/19/2019
P901022-33	WC-1-0.5'		Solid	01/18/2019	01/19/2019
P901022-34	WC-1-2'		Solid	01/18/2019	01/19/2019
P901022-35	WC-1-5'		Solid	01/18/2019	01/19/2019

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-0.5' **P901022-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	**0.75**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**52**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.39**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.52**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**7.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**44**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.60**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.59**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**50**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-1' **P901022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
8270CM_PAH_SIM (Batch ID: QC1210263)							
1-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benz(a)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Fluoranthene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Pyrene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	42%			30-120	01/22/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	51%			27-125	01/22/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	16%			33-155	01/22/2019	EPA 8270CM	S
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022)							
C7-C8	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C28-C33	**11.7**	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-1' (Continued) **P901022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022) (Continued)							
Surrogate: n-Octacosane (c28)	97.0%			60-140	01/24/2019	EPA 8015B (M)	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	01/22/2019	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Aniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-1' (Continued) **P901022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Azobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-1' (Continued) **P901022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Phenanthrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Phenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	01/22/2019	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	69%			34-143	01/22/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	59%			41-125	01/22/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	56%			13-153	01/22/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	61%			27-125	01/22/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	65%			10-110	01/22/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	66%			33-155	01/22/2019	EPA 8270C	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023)							
Acetone	**24**	µg/Kg	1	15	01/23/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	38	01/23/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	15	01/23/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-1' (Continued) **P901022-02 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	15	01/23/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	3.8	01/23/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	15	01/23/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	7.6	01/23/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	15	01/23/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-1' (Continued) **P901022-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	19	01/23/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	15	01/23/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.76	01/23/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.5	01/23/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.3	01/23/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	106%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	93.3%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	110%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	116%			60-140	01/23/2019	EPA 8260B/5035	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-2' **P901022-03 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	**1.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**51**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.48**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**8.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**7.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**39**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**48**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.51**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.46**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**37**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-5' **P901022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
8270CM_PAH_SIM (Batch ID: QC1210263)							
1-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
2-Methylnaphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Acenaphthylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benz(a)anthracene	**14**	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(a)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Benzo(b)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(g,h,i)perylene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Benzo(k)fluoranthene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Chrysene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Dibenz(a,h)anthracene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Fluoranthene	**23**	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Fluorene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Naphthalene	ND	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Phenanthrene	ND	ug/Kg	1	20	01/22/2019	EPA 8270CM	
Pyrene	**15**	ug/Kg	1	10	01/22/2019	EPA 8270CM	
Surrogate: 2-Fluorobiphenyl (SUR)	47%			30-120	01/22/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	64%			27-125	01/22/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	55%			33-155	01/22/2019	EPA 8270CM	
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022)							
C7-C8	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-5' (Continued) **P901022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022) (Continued)							
Surrogate: n-Octacosane (c28)	104%			60-140	01/24/2019	EPA 8015B (M)	
Hexavalent Chromium _Subcontract (Batch ID: 9012901)							
Hexavalent Chromium	ND	ug/kg	1	200	01/29/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	**4.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**94**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**48**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**5.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**110**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**60**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**1.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.47**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**48**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260)							
1,2,4-Trichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1,2-Dichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1,3-Dichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1,4-Dichlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
1-Methylnaphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-5' (Continued) **P901022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
2,4,5-Trichlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4,6-Trichlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4-Dichlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4-Dimethylphenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,4-Dinitrophenol	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
2,4-Dinitrotoluene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2,6-Dinitrotoluene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Chloronaphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Chlorophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Methylnaphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Methylphenol (o-Cresol)	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Nitroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
2-Nitrophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	1	400	01/22/2019	EPA 8270C	
3,3'-Dichlorobenzidine	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
3-Nitroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Bromophenyl phenyl ether	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Chloro-3-methylphenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Chloroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Chlorophenyl phenyl ether	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Nitroaniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
4-Nitrophenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Acenaphthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Acenaphthylene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Aniline	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Anthracene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Azobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benz(a)anthracene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzidine	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Benzo(a)pyrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzo(b)fluoranthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzo(g,h,i)perylene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzo(k)fluoranthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Benzoic acid	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Benzyl alcohol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-5' (Continued) **P901022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Bis(2-chloroethoxy)methane	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Bis(2-chloroethyl) Ether	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Butylbenzyl Phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Carbazole	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Chrysene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Dibenz(a,h)anthracene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Dibenzofuran	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Diethyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Dimethyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Di-n-butyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Di-n-octyl phthalate	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Fluoranthene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Fluorene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Hexachlorobenzene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Hexachlorobutadiene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Hexachlorocyclopentadiene	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Hexachloroethane	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Isophorone	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Naphthalene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Nitrobenzene	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
N-Nitrosodiphenylamine	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Pentachlorophenol	ND	ug/Kg	1	1200	01/22/2019	EPA 8270C	
Phenanthrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Phenol	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Pyrene	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Pyridine	ND	ug/Kg	1	250	01/22/2019	EPA 8270C	
Total Cresol	ND	ug/Kg	1	400	01/22/2019	EPA 8270C	
Surrogate: 2,4,6-Tribromophenol (SUR)	76%			34-143	01/22/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	65%			41-125	01/22/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	70%			13-153	01/22/2019	EPA 8270C	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-5' (Continued) **P901022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210260) (Continued)							
Surrogate: Nitrobenzene-d5 (SUR)	75%			27-125	01/22/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	75%			10-110	01/22/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	73%			33-155	01/22/2019	EPA 8270C	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023)							
Acetone	**39**	µg/Kg	1	17	01/23/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	42	01/23/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	01/23/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-5' (Continued) **P901022-04 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,2-Dichloroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	17	01/23/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	4.2	01/23/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	01/23/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	8.4	01/23/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	17	01/23/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	17	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-11-5' (Continued) **P901022-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)							
Toluene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.84	01/23/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.7	01/23/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.5	01/23/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	107%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	96.6%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	114%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	98.6%			60-140	01/23/2019	EPA 8260B/5035	

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ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-1-0.5' **P901022-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	**360**	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**5.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**40**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.93**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**9.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.76**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.32**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**37**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-1-2' **P901022-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	**370**	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**6.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**38**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.96**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.58**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.26**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-1-C-5' **P901022-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	**4700**	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	**0.31**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**8.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**52**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**6.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**2.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**9.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**74**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**3.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	**2.2**	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.75**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.98**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: SW-1-B-5' **P901022-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**1.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: TL-4-0.5' **P901022-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**2.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**26**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**8.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**6.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: TL-4-2' **P901022-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**2.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**8.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: TL-4-5' **P901022-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**2.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**8.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-5-0.5' **P901022-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**36**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.31**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-5-2' **P901022-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**2.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**31**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-5-5' **P901022-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**9.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**4.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.36**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S01-0.5' **P901022-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**5.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**20**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S01-2' **P901022-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**4.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**6.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S01-5' **P901022-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**1.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**22**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**6.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**2.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**6.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**2.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**5.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S02-0.5' **P901022-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**4.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**38**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**9.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**5.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**9.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S02-2' **P901022-19 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**2.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**22**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S02-5' **P901022-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**1.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**32**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**2.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**22**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S05-0.5' **P901022-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012128)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012129)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**2.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**31**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**8.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**6.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.38**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**16**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**19**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S05-2' **P901022-22 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012130)							
Hexavalent Chromium	ND	ug/kg	1	200	01/23/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**0.29**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**9.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**8.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.26**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**8.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S05-5' **P901022-23 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**1.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**29**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**8.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.36**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**18**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S04-0.5' **P901022-24 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	**360**	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**7.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**53**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.42**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**5.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**32**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.43**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.52**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.68**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**26**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**36**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S04-2' **P901022-25 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**320**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.96**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**37**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**53**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**6.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**2.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**29**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.40**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**72**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**170**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S04-5' **P901022-26 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	**810**	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**6.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**70**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.46**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**7.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**14**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**5.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**1.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**45**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S03-0.5' **P901022-27 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**7.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**29**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.56**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S03-2' **P901022-28 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.8**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.4**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.3**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**24**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**7.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.32**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.59**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**24**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CKDSP5-S03-5' **P901022-29 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	**450**	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**38**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.29**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.9**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**4.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.55**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**9.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**21**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**24**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: WC-2-0.5' **P901022-30 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	**0.16**	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**93**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**7.5**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**11**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**130**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.51**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**35**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	**1.2**	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**1.1**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.89**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**160**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: WC-2-2' **P901022-31 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	**0.17**	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	**0.40**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**43**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**120**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**4.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**12**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**150**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.77**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**51**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	**2.1**	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**1.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.73**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**54**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**220**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: WC-2-5' **P901022-32 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	ND	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**5.2**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**50**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	**0.27**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**1.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**10**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**3.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**39**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**0.33**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**15**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**0.34**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**0.28**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**24**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**49**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: WC-1-0.5' **P901022-33 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	**7500**	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	**0.38**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Arsenic	**17**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Barium	**69**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cadmium	**13**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Chromium	**23**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Cobalt	**1.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Copper	**8.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Lead	**140**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Molybdenum	**6.0**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Nickel	**5.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Selenium	**9.0**	mg/kg	1	1.2	01/23/2019	6020 ICP-MS	
Silver	**2.7**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Thallium	**1.6**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Vanadium	**25**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	
Zinc	**42**	mg/kg	1	0.25	01/23/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: WC-1-2' **P901022-34 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	**2500**	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	**0.37**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**12**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**62**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	**8.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**13**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**2.6**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**8.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**100**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	**1.6**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**7.0**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	**2.5**	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	**1.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	**1.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**23**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**44**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: WC-1-5' **P901022-35 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium _Subcontract (Batch ID: 9012133)							
Hexavalent Chromium	**4200**	ug/kg	1	200	01/22/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012132)							
Mercury	ND	mg/kg	1	0.10	01/23/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_ Subcontract (Batch ID: 9012134)							
Antimony	**0.50**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Arsenic	**15**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Barium	**81**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cadmium	**18**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Chromium	**18**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Cobalt	**2.1**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Copper	**10**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Lead	**150**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Molybdenum	**2.3**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Nickel	**6.8**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Selenium	**5.5**	mg/kg	1	1.2	01/24/2019	6020 ICP-MS	
Silver	**2.7**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Thallium	**2.5**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	
Zinc	**37**	mg/kg	1	0.25	01/24/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control

8270CM_PAH_SIM

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210263										
LCS (QC1210263LCS1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Pyrene	48		10	ug/Kg	50	NA	96	68-134		
Phenanthrene	46		10	ug/Kg	50	NA	92	65-132		
Benzo(b)fluoranthene	50		10	ug/Kg	50	NA	100	63-147		
1-Methylnaphthalene	37		10	ug/Kg	50	NA	74	38-130		
2-Methylnaphthalene	40		10	ug/Kg	50	NA	80	59-130		
Acenaphthene	38		10	ug/Kg	50	NA	76	58-130		
Acenaphthylene	38		10	ug/Kg	50	NA	76	52-130		
Anthracene	35		10	ug/Kg	50	NA	70	55-136		
Benzo(a)pyrene	51		10	ug/Kg	50	NA	102	36-168		
Benzo(g,h,i)perylene	37		10	ug/Kg	50	NA	74	54-135		
Benzo(k)fluoranthene	45		10	ug/Kg	50	NA	90	64-142		
Chrysene	38		10	ug/Kg	50	NA	76	66-130		
Dibenz(a,h)anthracene	39		10	ug/Kg	50	NA	78	52-144		
Fluoranthene	54		10	ug/Kg	50	NA	108	68-139		
Fluorene	42		10	ug/Kg	50	NA	84	63-130		
Indeno(1,2,3-cd)pyrene	45		10	ug/Kg	50	NA	90	58-144		
Naphthalene	38		10	ug/Kg	50	NA	76	50-130		
Benz(a)anthracene	48		10	ug/Kg	50	NA	96	61-147		
Surrogate: Nitrobenzene-d5 (SUR)	33.601			ug/Kg	50	NA	67	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	33.687			ug/Kg	50	NA	67	30-120		
Surrogate: p-Terphenyl (SUR)	45.212			ug/Kg	50	NA	90	33-155		
Method Blank (QC1210263MB1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
Pyrene	ND		10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Acenaphthene	ND		10	ug/Kg		NA		-		
Acenaphthylene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
Chrysene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Fluoranthene	12	B	10	ug/Kg		NA		-		
Fluorene	ND		10	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	11	B	10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Phenanthrene	16	B	10	ug/Kg		NA		-		
Benzo(a)pyrene	12	B	10	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

8270CM_PAH_SIM (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210263 (Continued)										
MS (QC1210263MS1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
Benzo(g,h,i)perylene	36		10	ug/Kg	50	4.1	64	36-130		
Dibenz(a,h)anthracene	37		10	ug/Kg	50	ND	74	38-132		
Fluoranthene	51		10	ug/Kg	50	14	74	28-160		
Benzo(k)fluoranthene	44		10	ug/Kg	50	9.8	68	36-161		
Benzo(b)fluoranthene	52		10	ug/Kg	50	9.2	86	36-164		
Benzo(a)pyrene	53		10	ug/Kg	50	16	74	18-173		
Benz(a)anthracene	48		10	ug/Kg	50	11	74	26-174		
Anthracene	40		10	ug/Kg	50	ND	80	24-156		
Acenaphthylene	29		10	ug/Kg	50	ND	58	14-157		
Acenaphthene	29		10	ug/Kg	50	ND	58	28-134		
2-Methylnaphthalene	30		10	ug/Kg	50	ND	60	32-133		
Chrysene	38		10	ug/Kg	50	7.9	60	40-139		
Fluorene	34		10	ug/Kg	50	ND	68	27-140		
Indeno(1,2,3-cd)pyrene	45		10	ug/Kg	50	14	62	26-154		
Naphthalene	28		10	ug/Kg	50	ND	56	33-130		
Phenanthrene	42		10	ug/Kg	50	6.4	71	29-147		
Pyrene	45		10	ug/Kg	50	11	68	26-153		
1-Methylnaphthalene	28		10	ug/Kg	50	ND	56	25-130		
Surrogate: 2-Fluorobiphenyl (SUR)	25.403			ug/Kg	50	NA	51	30-120		
Surrogate: Nitrobenzene-d5 (SUR)	27.272			ug/Kg	50	NA	55	27-125		
Surrogate: p-Terphenyl (SUR)	40.842			ug/Kg	50	NA	82	33-155		
MSD (QC1210263MSD1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
Fluorene	40		10	ug/Kg	50	ND	80	27-140	16.2	35
Pyrene	49		10	ug/Kg	50	11	76	26-153	8.5	35
Phenanthrene	49		10	ug/Kg	50	6.4	85	29-147	15.4	35
Naphthalene	37		10	ug/Kg	50	ND	74	33-130	27.7	35
Chrysene	42		10	ug/Kg	50	7.9	68	40-139	10	35
Acenaphthene	37		10	ug/Kg	50	ND	74	28-134	24.2	35
1-Methylnaphthalene	37		10	ug/Kg	50	ND	74	25-130	27.7	35
Fluoranthene	55		10	ug/Kg	50	14	82	28-160	7.5	35
2-Methylnaphthalene	40		10	ug/Kg	50	ND	80	32-133	28.6	35
Dibenz(a,h)anthracene	39		10	ug/Kg	50	ND	78	38-132	5.3	35
Acenaphthylene	37		10	ug/Kg	50	ND	74	14-157	24.2	35
Anthracene	43		10	ug/Kg	50	ND	86	24-156	7.2	35
Benz(a)anthracene	51		10	ug/Kg	50	11	80	26-174	6.1	35
Benzo(a)pyrene	57		10	ug/Kg	50	16	82	18-173	7.3	35
Benzo(b)fluoranthene	56		10	ug/Kg	50	9.2	94	36-164	7.4	35
Benzo(g,h,i)perylene	38		10	ug/Kg	50	4.1	68	36-130	5.4	35
Benzo(k)fluoranthene	47		10	ug/Kg	50	9.8	74	36-161	6.6	35
Indeno(1,2,3-cd)pyrene	48		10	ug/Kg	50	14	68	26-154	6.5	35
Surrogate: p-Terphenyl (SUR)	43.647			ug/Kg	50	NA	87	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	35.984			ug/Kg	50	NA	72	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	32.523			ug/Kg	50	NA	65	30-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

8270CM_PAH_SIM (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: QC1210263 (Continued)

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0022										
Blank (B9A0022-BLK1)				Prepared & Analyzed: 01/24/2019						
C7-C8	ND		10.0	mg/kg						
C9-C10	ND		10.0	mg/kg						
C11-C12	ND		10.0	mg/kg						
C13-C14	ND		10.0	mg/kg						
C15-C16	ND		10.0	mg/kg						
C17-C18	ND		10.0	mg/kg						
C19-C20	ND		10.0	mg/kg						
C21-C22	ND		10.0	mg/kg						
C23-C24	ND		10.0	mg/kg						
C25-C27	ND		10.0	mg/kg						
C28-C33	ND		10.0	mg/kg						
C34-C40	ND		10.0	mg/kg						
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.04		95.1	60-140		
LCS (B9A0022-BS1)				Prepared & Analyzed: 01/24/2019						
Diesel	44.4		10.0	mg/kg	50.0		88.9	70-130		
Surrogate: n-Octacosane (c28)	2.07			mg/kg	2.04		101	60-140		
LCS Dup (B9A0022-BSD1)				Prepared & Analyzed: 01/24/2019						
Diesel	45.4		10.0	mg/kg	50.0		90.8	70-130	2.09	20
Surrogate: n-Octacosane (c28)	2.01			mg/kg	2.04		98.4	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Hexavalent Chromium _Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012130										
Blank (9012130-BLK1)				Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9012130-BS1)				Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	9160		200	ug/kg	10000		91.6	80-120		
Matrix Spike (9012130-MS1)		**Source: P901022-21**		Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	8610		200	ug/kg	10200	ND	84.1	75-125		
Matrix Spike Dup (9012130-MSD1)		**Source: P901022-21**		Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	8450		200	ug/kg	10400	ND	81.5	75-125	1.88	20
Batch: 9012133										
Blank (9012133-BLK1)				Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9012133-BS1)				Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	8900		200	ug/kg	10000		89.0	80-120		
Matrix Spike (9012133-MS1)		**Source: P901022-23**		Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	8880		200	ug/kg	9840	ND	90.2	75-125		
Matrix Spike Dup (9012133-MSD1)		**Source: P901022-23**		Prepared: 01/21/2019 Analyzed: 01/22/2019						
Hexavalent Chromium	8090		200	ug/kg	9580	ND	84.4	75-125	9.36	20
Batch: 9012901										
Blank (9012901-BLK1)				Prepared & Analyzed: 01/29/2019						
Hexavalent Chromium	ND		200	ug/kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Hexavalent Chromium _Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012901 (Continued)										
LCS (9012901-BS1)					Prepared & Analyzed: 01/29/2019					
Hexavalent Chromium	10000		200	ug/kg	10000		100	80-120		
Matrix Spike (9012901-MS1)		**Source: P901022-04**			Prepared & Analyzed: 01/29/2019					
Hexavalent Chromium	9720		200	ug/kg	9840	ND	98.7	75-125		
Matrix Spike Dup (9012901-MSD1)		**Source: P901022-04**			Prepared & Analyzed: 01/29/2019					
Hexavalent Chromium	9230		200	ug/kg	9840	ND	93.8	75-125	5.13	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012128										
Blank (9012128-BLK1)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	ND		0.10	mg/kg						
LCS (9012128-BS1)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	0.403		0.10	mg/kg	0.417		96.7	80-120		
Matrix Spike (9012128-MS1)		**Source: P901022-01**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	0.420		0.10	mg/kg	0.397	0.0280	98.7	75-125		
Matrix Spike Dup (9012128-MSD1)		**Source: P901022-01**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	0.432		0.10	mg/kg	0.417	0.0280	97.0	75-125	2.91	20
Batch: 9012132										
Blank (9012132-BLK1)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	ND		0.10	mg/kg						
LCS (9012132-BS1)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	0.402		0.10	mg/kg	0.403		99.8	80-120		
Matrix Spike (9012132-MS1)		**Source: P901022-22**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	0.379		0.10	mg/kg	0.391	ND	97.0	75-125		
Matrix Spike Dup (9012132-MSD1)		**Source: P901022-22**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Mercury	0.385		0.10	mg/kg	0.403	ND	95.5	75-125	1.55	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Metals, Title 22 ICP-MS_ Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012129										
Blank (9012129-BLK1)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Antimony	ND		0.25	mg/kg						
Arsenic	ND		0.25	mg/kg						
Barium	ND		0.25	mg/kg						
Beryllium	ND		0.25	mg/kg						
Cadmium	ND		0.25	mg/kg						
Chromium	0.353	QB-01	0.25	mg/kg						
Cobalt	ND		0.25	mg/kg						
Copper	ND		0.25	mg/kg						
Lead	ND		0.25	mg/kg						
Mercury	ND		0.025	mg/kg						
Molybdenum	ND		0.25	mg/kg						
Nickel	ND		0.25	mg/kg						
Selenium	ND		1.2	mg/kg						
Silver	ND		0.25	mg/kg						
Thallium	ND		0.25	mg/kg						
Vanadium	ND		0.25	mg/kg						
Zinc	ND		0.25	mg/kg						
Duplicate (9012129-DUP1)		**Source: P901022-01**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Barium	32.4	QM-05	1.2	mg/kg		51.8			46.2	20
Lead	29.5	QM-05	1.2	mg/kg		43.7			38.9	20
LCS (9012129-BS1)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Arsenic	95.7		0.25	mg/kg	100		95.7	80-120		
Barium	98.2		0.25	mg/kg	100		98.2	80-120		
Cadmium	96.1		0.25	mg/kg	100		96.1	80-120		
Chromium	97.7		0.25	mg/kg	100		97.7	80-120		
Lead	97.8		0.25	mg/kg	100		97.8	80-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Metals, Title 22 ICP-MS_ Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012129 (Continued)										
Matrix Spike (9012129-MS1)		**Source: P901022-01**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Arsenic	114		0.25	mg/kg	95.2	19.5	99.2	75-125		
Barium	116	QM-05	0.25	mg/kg	95.2	51.8	67.4	75-125		
Cadmium	86.8		0.25	mg/kg	95.2	0.525	90.6	75-125		
Chromium	96.7		0.25	mg/kg	95.2	10.9	90.0	75-125		
Lead	110	QM-05	0.25	mg/kg	95.2	43.7	69.9	75-125		
Matrix Spike Dup (9012129-MSD1)		**Source: P901022-01**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Arsenic	99.4		0.25	mg/kg	99.0	19.5	80.7	75-125	13.7	20
Barium	112	QM-05	0.25	mg/kg	99.0	51.8	61.0	75-125	3.34	20
Cadmium	89.2		0.25	mg/kg	99.0	0.525	89.5	75-125	2.65	20
Chromium	94.5		0.25	mg/kg	99.0	10.9	84.4	75-125	2.27	20
Lead	110	QM-05	0.25	mg/kg	99.0	43.7	66.9	75-125	0.304	20
Post Spike (9012129-PS1)		**Source: P901022-01**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Barium	57.8	QM-05		ug/kg	2.00	51.8	295	80-120		
Lead	53.0	QM-05		ug/kg	2.00	43.7	466	80-120		
Batch: 9012134										
Blank (9012134-BLK2)				Prepared: 01/21/2019 Analyzed: 01/23/2019						
Antimony	ND		0.25	mg/kg						
Arsenic	ND		0.25	mg/kg						
Barium	ND		0.25	mg/kg						
Beryllium	ND		0.25	mg/kg						
Cadmium	ND		0.25	mg/kg						
Chromium	ND		0.25	mg/kg						
Cobalt	ND		0.25	mg/kg						
Copper	ND		0.25	mg/kg						
Lead	ND		0.25	mg/kg						
Mercury	ND		0.025	mg/kg						
Molybdenum	ND		0.25	mg/kg						
Nickel	ND		0.25	mg/kg						
Selenium	ND		1.2	mg/kg						
Silver	ND		0.25	mg/kg						
Thallium	ND		0.25	mg/kg						
Vanadium	ND		0.25	mg/kg						
Zinc	ND		0.25	mg/kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Metals, Title 22 ICP-MS_ Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012134 (Continued)										
Duplicate (9012134-DUP2)		**Source: P901022-22**		Prepared: 01/21/2019 Analyzed: 01/24/2019						
Arsenic	3.54		1.2	mg/kg		2.98			17.2	20
Barium	36.8		1.2	mg/kg		34.4			6.87	20
Cadmium	0.307		1.2	mg/kg		0.293			4.52	20
Chromium	10.2		1.2	mg/kg		9.39			8.01	20
Lead	9.03		1.2	mg/kg		8.49			6.14	20
LCS (9012134-BS2)				Prepared: 01/21/2019 Analyzed: 01/24/2019						
Arsenic	94.9		0.25	mg/kg	100		94.9	80-120		
Barium	92.9		0.25	mg/kg	100		92.9	80-120		
Cadmium	96.1		0.25	mg/kg	100		96.1	80-120		
Chromium	107		0.25	mg/kg	100		107	80-120		
Lead	94.4		0.25	mg/kg	100		94.4	80-120		
Matrix Spike (9012134-MS2)		**Source: P901022-22**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Arsenic	147	QR-04	0.25	mg/kg	100	2.98	144	75-125		
Barium	205	QR-04	0.25	mg/kg	100	34.4	171	75-125		
Cadmium	141	QR-04	0.25	mg/kg	100	0.293	141	75-125		
Chromium	170	QR-04	0.25	mg/kg	100	9.39	160	75-125		
Lead	164	QR-04	0.25	mg/kg	100	8.49	155	75-125		
Matrix Spike Dup (9012134-MSD2)		**Source: P901022-22**		Prepared: 01/21/2019 Analyzed: 01/23/2019						
Arsenic	104	QM-07	0.25	mg/kg	100	2.98	101	75-125	34.3	20
Barium	136	QM-07	0.25	mg/kg	100	34.4	102	75-125	40.6	20
Cadmium	99.0	QM-07	0.25	mg/kg	100	0.293	98.7	75-125	35.2	20
Chromium	114	QM-07	0.25	mg/kg	100	9.39	105	75-125	39.0	20
Lead	111	QM-07	0.25	mg/kg	100	8.49	103	75-125	38.2	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260										
LCS (QC1210260LCS1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
1,2,4-Trichlorobenzene	1300		250	ug/Kg	2000	NA	65	43-111		
Pyrene	1500		250	ug/Kg	2000	NA	75	63-119		
Pentachlorophenol	1300		1200	ug/Kg	2000	NA	65	41-103		
4-Chloro-3-methylphenol	1600		250	ug/Kg	2000	NA	80	61-122		
1,4-Dichlorobenzene	1200		250	ug/Kg	2000	NA	60	30-116		
2,4,5-Trichlorophenol	1500		250	ug/Kg	2000	NA	75	57-125		
2,4-Dimethylphenol	1500		250	ug/Kg	2000	NA	75	50-112		
2-Chlorophenol	1400		250	ug/Kg	2000	NA	70	48-114		
3 and 4-Methylphenol (m and p-Cresol)	1600		400	ug/Kg	2000	NA	80	56-124		
Phenol	1400		250	ug/Kg	2000	NA	70	51-111		
4-Nitrophenol	1700		250	ug/Kg	2000	NA	85	54-126		
Acenaphthene	1400		250	ug/Kg	2000	NA	70	53-112		
Benzo(b)fluoranthene	1700		250	ug/Kg	2000	NA	85	61-125		
Chrysene	1500		250	ug/Kg	2000	NA	75	59-117		
N-Nitrosodi-n-propylamine (NDPA)	1600		250	ug/Kg	2000	NA	80	54-110		
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	NA	75	57-124		
Surrogate: p-Terphenyl (SUR)	1585.422			ug/Kg	2000	NA	79	33-155		
Surrogate: 2-Fluorobiphenyl (SUR)	1457.652			ug/Kg	2000	NA	73	41-125		
Surrogate: Phenol-d5 (SUR)	1560.604			ug/Kg	2000	NA	78	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1481.625			ug/Kg	2000	NA	74	27-125		
Surrogate: 2-Fluorophenol (SUR)	1371.266			ug/Kg	2000	NA	69	13-153		
Surrogate: 2,4,6-Tribromophenol (SUR)	1613.317			ug/Kg	2000	NA	81	34-143		
Method Blank (QC1210260MB1)		**Source: NA**		Prepared & Analyzed: 01/21/2019						
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
Phenanthrene	ND		250	ug/Kg		NA		-		
Phenol	ND		250	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		
Total Cresol	ND		400	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		
Dibenzofuran	ND		250	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260 (Continued)										
Method Blank (QC1210260MB1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
Hexachloroethane	ND		250	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		
Naphthalene	ND		250	ug/Kg		NA		-		
Nitrobenzene	ND		1200	ug/Kg		NA		-		
Fluorene	ND		250	ug/Kg		NA		-		
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
Chrysene	ND		250	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Benz(a)anthracene	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
Acenaphthylene	ND		250	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
Acenaphthene	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260 (Continued)										
Method Blank (QC1210260MB1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
4-Nitrophenol	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		
3-Nitroaniline	ND		250	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
Surrogate: Phenol-d5 (SUR)	1570.777			ug/Kg	2000	NA	79	10-110		
Surrogate: p-Terphenyl (SUR)	1555.128			ug/Kg	2000	NA	78	33-155		
Surrogate: Nitrobenzene-d5 (SUR)	1521.013			ug/Kg	2000	NA	76	27-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1504.422			ug/Kg	2000	NA	75	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1429.486			ug/Kg	2000	NA	71	41-125		
Surrogate: 2-Fluorophenol (SUR)	1450.847			ug/Kg	2000	NA	73	13-153		
MS (QC1210260MS1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
1,2,4-Trichlorobenzene	1200		250	ug/Kg	2000	ND	60	35-93		
1,4-Dichlorobenzene	1000		250	ug/Kg	2000	ND	50	39-95		
2,4,5-Trichlorophenol	1400		250	ug/Kg	2000	ND	70	44-108		
2,4-Dimethylphenol	1300		250	ug/Kg	2000	ND	65	37-105		
2-Chlorophenol	1300		250	ug/Kg	2000	ND	65	42-102		
4-Nitrophenol	1600		250	ug/Kg	2000	ND	80	37-107		
3 and 4-Methylphenol (m and p-Cresol)	1400		400	ug/Kg	2000	ND	70	33-116		
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	ND	75	48-109		
Acenaphthene	1300		250	ug/Kg	2000	ND	65	57-99		
Benzo(b)fluoranthene	1500		250	ug/Kg	2000	ND	75	59-126		
Chrysene	1400		250	ug/Kg	2000	ND	70	68-120		
N-Nitrosodi-n-propylamine (NDPA)	1400		250	ug/Kg	2000	ND	70	41-127		
Phenol	1300		250	ug/Kg	2000	ND	65	46-116		
4-Chloro-3-methylphenol	1500		250	ug/Kg	2000	ND	75	33-120		
Pyrene	1500		250	ug/Kg	2000	ND	75	53-129		
Pentachlorophenol	1300		1200	ug/Kg	2000	ND	65	43-120		
Surrogate: 2,4,6-Tribromophenol (SUR)	1557.47			ug/Kg	2000	NA	78	34-143		
Surrogate: 2-Fluorophenol (SUR)	961.254			ug/Kg	2000	NA	48	13-153		
Surrogate: Phenol-d5 (SUR)	1182.169			ug/Kg	2000	NA	59	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	988.5			ug/Kg	2000	NA	49	27-125		
Surrogate: p-Terphenyl (SUR)	1504.131			ug/Kg	2000	NA	75	33-155		
Surrogate: 2-Fluorobiphenyl (SUR)	1051.419			ug/Kg	2000	NA	53	41-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210260 (Continued)										
MSD (QC1210260MSD1)		**Source: NA**			Prepared & Analyzed: 01/21/2019					
Acenaphthene	1000	M	250	ug/Kg	2000	ND	50	57-99	26.1	30
Phenol	940	M	250	ug/Kg	2000	ND	47	46-116	32.1	30
Pentachlorophenol	1100		1200	ug/Kg	2000	ND	55	43-120	16.7	30
N-Nitrosodi-n-propylamine (NDPA)	1000	M	250	ug/Kg	2000	ND	50	41-127	33.3	30
Pyrene	1300		250	ug/Kg	2000	ND	65	53-129	14.3	30
Benzo(b)fluoranthene	1400		250	ug/Kg	2000	ND	70	59-126	6.9	30
2,4-Dinitrotoluene	1300		250	ug/Kg	2000	ND	65	48-109	14.3	30
4-Nitrophenol	1700		250	ug/Kg	2000	ND	85	37-107	6.1	30
4-Chloro-3-methylphenol	1200		250	ug/Kg	2000	ND	60	33-120	22.2	30
3 and 4-Methylphenol (m and p-Cresol)	1100		400	ug/Kg	2000	ND	55	33-116	24	30
2-Chlorophenol	910	M	250	ug/Kg	2000	ND	46	42-102	35.3	30
Chrysene	1200	M	250	ug/Kg	2000	ND	60	68-120	15.4	30
1,2,4-Trichlorobenzene	840	M	250	ug/Kg	2000	ND	42	35-93	35.3	30
1,4-Dichlorobenzene	760	M	250	ug/Kg	2000	ND	38	39-95	27.3	30
2,4,5-Trichlorophenol	1200		250	ug/Kg	2000	ND	60	44-108	15.4	30
2,4-Dimethylphenol	940	M	250	ug/Kg	2000	ND	47	37-105	32.1	30
Surrogate: Phenol-d5 (SUR)	977.058			ug/Kg	2000	NA	49	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	926.104			ug/Kg	2000	NA	46	27-125		
Surrogate: 2-Fluorophenol (SUR)	863.734			ug/Kg	2000	NA	43	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	922.741			ug/Kg	2000	NA	46	41-125		
Surrogate: p-Terphenyl (SUR)	1358.387			ug/Kg	2000	NA	68	33-155		
Surrogate: 2,4,6-Tribromophenol (SUR)	1376.049			ug/Kg	2000	NA	69	34-143		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0023										
Blank (B9A0023-BLK1)				Prepared & Analyzed: 01/23/2019						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		5.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0023 (Continued)										
Blank (B9A0023-BLK1)				Prepared & Analyzed: 01/23/2019						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		5.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		20	µg/Kg						
Methyl Methacrylate	ND		5.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		20	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	52			µg/Kg	50.0		104	60-140		
Surrogate: 4-Bromofluorobenzene	47			µg/Kg	50.0		94.1	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		102	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		97.8	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0023 (Continued)										
LCS (B9A0023-BS1)				Prepared & Analyzed: 01/23/2019						
Benzene	40		1.0	µg/Kg	40.0		101	70-130		
Bromobenzene	41		1.0	µg/Kg	40.0		103	70-130		
Bromodichloromethane	43		1.0	µg/Kg	40.0		108	70-130		
Bromoform	42		1.0	µg/Kg	40.0		104	70-130		
Chlorobenzene	40		1.0	µg/Kg	40.0		101	70-130		
Chloroethane	37		5.0	µg/Kg	40.0		93.7	70-130		
Chloroform	40		1.0	µg/Kg	40.0		101	70-130		
4-Chlorotoluene	41		1.0	µg/Kg	40.0		102	70-130		
Dibromomethane	42		1.0	µg/Kg	40.0		106	70-130		
1,2-Dichlorobenzene	41		1.0	µg/Kg	40.0		101	70-130		
1,1-Dichloroethene	42		1.0	µg/Kg	40.0		105	70-130		
1,2-Dichloropropane	41		1.0	µg/Kg	40.0		104	70-130		
2,2-Dichloropropane	42		1.0	µg/Kg	40.0		105	70-130		
1,1-Dichloropropene	40		1.0	µg/Kg	40.0		100	70-130		
Diethyl Ether	39		5.0	µg/Kg	40.0		96.8	70-130		
Diisopropyl Ether (DIPE)	40		1.0	µg/Kg	40.0		99.1	70-130		
Ethylbenzene	41		1.0	µg/Kg	40.0		103	70-130		
Hexachloro-1,3-Butadiene	39		1.0	µg/Kg	40.0		98.0	70-130		
Methylene Chloride	43		20	µg/Kg	40.0		108	70-130		
Methyl-t-Butyl Ether (MTBE)	40		1.0	µg/Kg	40.0		99.0	70-130		
Naphthalene	39		10	µg/Kg	40.0		97.4	70-130		
Styrene	43		1.0	µg/Kg	40.0		108	70-130		
tert-Butylbenzene	42		1.0	µg/Kg	40.0		104	70-130		
Tetrachloroethene	40		1.0	µg/Kg	40.0		100	70-130		
Toluene	40		1.0	µg/Kg	40.0		101	70-130		
1,2,3-Trichlorobenzene	41		1.0	µg/Kg	40.0		101	70-130		
Trichloroethene	40		1.0	µg/Kg	40.0		99.2	70-130		
1,3,5-Trimethylbenzene	44		1.0	µg/Kg	40.0		109	70-130		
Vinyl Chloride	36		1.0	µg/Kg	40.0		89.1	70-130		
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		103	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	48			µg/Kg	50.0		95.4	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		98.9	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0023 (Continued)										
LCS Dup (B9A0023-BSD1)				Prepared & Analyzed: 01/23/2019						
Benzene	40		1.0	µg/Kg	40.0		99.6	70-130	1.62	20
Bromobenzene	41		1.0	µg/Kg	40.0		102	70-130	1.14	20
Bromodichloromethane	43		1.0	µg/Kg	40.0		106	70-130	1.42	20
Bromoform	41		1.0	µg/Kg	40.0		102	70-130	2.04	20
Chlorobenzene	40		1.0	µg/Kg	40.0		99.3	70-130	1.67	20
Chloroethane	35		5.0	µg/Kg	40.0		86.7	70-130	7.73	20
Chloroform	40		1.0	µg/Kg	40.0		100	70-130	0.124	20
4-Chlorotoluene	40		1.0	µg/Kg	40.0		99.6	70-130	2.43	20
Dibromomethane	43		1.0	µg/Kg	40.0		107	70-130	0.942	20
1,2-Dichlorobenzene	39		1.0	µg/Kg	40.0		97.5	70-130	3.95	20
1,1-Dichloroethene	34		1.0	µg/Kg	40.0		83.9	70-130	22.3	20
1,2-Dichloropropane	41		1.0	µg/Kg	40.0		103	70-130	0.290	20
2,2-Dichloropropane	41		1.0	µg/Kg	40.0		102	70-130	2.80	20
1,1-Dichloropropene	39		1.0	µg/Kg	40.0		97.7	70-130	2.83	20
Diethyl Ether	35		5.0	µg/Kg	40.0		88.7	70-130	8.73	20
Diisopropyl Ether (DIPE)	40		1.0	µg/Kg	40.0		99.7	70-130	0.579	20
Ethylbenzene	40		1.0	µg/Kg	40.0		99.7	70-130	2.96	20
Hexachloro-1,3-Butadiene	37		1.0	µg/Kg	40.0		92.4	70-130	5.88	20
Methylene Chloride	43		20	µg/Kg	40.0		108	70-130	0.0463	20
Methyl-t-Butyl Ether (MTBE)	40		1.0	µg/Kg	40.0		101	70-130	1.73	20
Naphthalene	39		10	µg/Kg	40.0		97.8	70-130	0.435	20
Styrene	42		1.0	µg/Kg	40.0		105	70-130	2.87	20
tert-Butylbenzene	40		1.0	µg/Kg	40.0		101	70-130	3.56	20
Tetrachloroethene	39		1.0	µg/Kg	40.0		97.0	70-130	3.37	20
Toluene	39		1.0	µg/Kg	40.0		98.2	70-130	2.99	20
1,2,3-Trichlorobenzene	40		1.0	µg/Kg	40.0		99.2	70-130	2.14	20
Trichloroethene	39		1.0	µg/Kg	40.0		97.0	70-130	2.29	20
1,3,5-Trimethylbenzene	42		1.0	µg/Kg	40.0		106	70-130	3.04	20
Vinyl Chloride	34		1.0	µg/Kg	40.0		84.6	70-130	5.09	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	48			µg/Kg	50.0		95.9	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		98.5	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Notes and Definitions

Item	Definition
B	Analyte was present in an associated method blank.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
QB-01	The method blank contains analyte at a concentration above the MRL; however, concentration is less than 10% of the sample result, which is negligible according to method criteria.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
QM-07	The spike recovery and or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR-04	The pecent recovery and/or RPD was outside acceptance criteria. Results accepted based upon percent recovery results in duplicate QC sample and the CCV and CCB results.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 4

PAL WO#: P901022

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Neil Shukla/ Brad McCardell
Email	nshukla@langan.com
Phone	7146160163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: TPH 8015M	CrVI 7199	Total Metals 6020	VOCs 8260B	SVOCs, PAHs 8270C	Dioxins 1613
1	OS-11-0.5'	1/18/19	0814	S	1GJ		X	X			
2	OS-11-1'	1/18/19	0819	S	2GJ/ VOAs	X			X	X	
3	OS-11-2'	1/18/19	0821	S	1GJ		X	X			
4	OS-11-5'	1/18/19	0833	S	2GJ/ VOAs	X	X	X	X	X	
5	SW-1-0.5'		0945		2GJ		X	X			X
6	SW-1-2'		0949		2GJ		X	X			X
7	SW-1-C-5'		0953		2GJ		X	X			
8	SW-1-B-5'		0956		2GJ		X	X			
9	TL-4-0.5'		1048		1GJ		X	X			
10	TL-4-2'		1050		1GJ		X	X			

G-4588

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): **STD** 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: Yes / No

Type of EDD: EZEDD

Reciept Temp./ Initials: 3.2°C MV
(Temp recorded is not corrected)

RELINQUISHED BY

Signature: Brad McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 1/19/19
TIME: 12:20 pm

RECEIVED BY

Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 1/19/19
TIME: 1226

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901022

Client Name	Langan
Address	515 S. Flower St. Suite 2660 Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	7146160163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020
1	TL-4-5'	1/18/19	1053	S	1 J	X	X
2	VP-5-0.5'		1150		1 J	X	X
3	VP-5-2'		1152		1 J	X	X
4	VP-5-5'		1154		1 J	X	X
5	CKDSP5-S01-0.5'		1338		1 J		
6	CKDSP5-S01-2'		1340				
7	CKDSP5-S01-5'		1345				
8	CKDSP5-S02-0.5'		1350				
9	CKDSP5-S02-2'		1357				
10	CKDSP5-S02-5'		1400				

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD	RUSH		
	(5 day)	24	48	72

EDD Required - Circle one:	(Yes)	No
Type of EDD:	EZEDD	
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY
Signature: [signature]
Print: Brad McCardell
Company: Langan
DATE: 1/18/19
TIME: 12:20 pm

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 1/19/19
TIME: 1226

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-4589

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901022

Client Name	Langan
Address	515 S Flower St, Suite 2860, Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	7146160163
Project Name/Number	
P.O. Number	72013502
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020
1	CKDSPS-S05-0.5'	1/18/19	1408	S	1 J	X	X
2	CKDSPS-S05-2'		1412		1 J	X	X
3	CKDSPS-S05-5'		1415		1 J	X	X
4	CKDSPS-S04-0.5'		1423		1 J	X	X
5	CKDSPS-S04-2'		1425		1 J	X	X
6	CKDSPS-S04-5'		1428		1 J	X	X
7	CKDSPS-S03-0.5'		1435			X	X
8	CKDSPS-S03-2'		1437			X	X
9	CKDSPS-S03-5'		1442			X	X
10	WC-2-0.5'		1402			X	X

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD 5 day) | RUSH 24 | 48 | 72

EDD Required - Circle one: (Yes) No

Type of EDD: EZEDD

Reciept Temp./ Initials:
(Temp recorded is not corrected)

	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	[signature]	[signature]		
Print:	B McCardell	M Valenzuela		
Company:	Langan	PAL		
DATE:	1/18/19	1/19/19		
TIME:	12:20 pm	1226		

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-4590

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 4 of 4

PAL WO#: P901022

Client Name	Langan
Address	515 S Flower St. Suite 2260 Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020
1	WC-2-2'	1/18/19	1500	S	1J	X	X
2	WC-2-5'	↓	1504	↓	↓	↓	↓
3	WC-1-0.5'		1516				
4	WC-1-2'		1519				
5	WC-1-5'-	↓	1525	↓	1J		
6							
7							
8							
9							
10							

G-4591

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: (Yes) No

Type of EDD: EZEDD

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: [signature]
Print: Brad McCardell
Company: Langan
DATE: 1/19/19
TIME: 12:20pm

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 1/19/19
TIME: 1220

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P901022

Cooler 1 OF 1

Client Langan

Date Received: 1/19/19

Courier ◯ CLIENT ◯ PALI ◯ OTHER _____ ◯ FEDEX ◯ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	◯ Blank ⊗ Sample	3.2	0.0	3.2	TM-12

⊗ WET ICE ◯ BLUE ICE ◯ AMBIENT ◯ OTHER _____

◯ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ◯ Present and Intact ◯ Present and **NOT** Intact ◯ Seals signed and dated ⊗ Not Present

Sample Seal ◯ Present and Intact ◯ Present and **NOT** Intact ◯ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ◯ NOT INCLUDED

⊗ Complete ◯ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ◯ LIQUID ◯ AIR ◯ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MJ	1/21/19		

T190154

SUBCONTRACT CHAIN OF CUSTODY

Performance Analytical Laboratories, Inc.

1.3

Work Order ID: P901022

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Sun Star Laboratories, Inc.
25712 Commercentre Drive
Lake Forest, CA 92630
Phone :(949) 297-5020
Fax: .

Sample P901022-02 was included, waiting to hear from client.

Analysis	Due	Comments
01 Sample ID: OS-11-0.5' **Matrix:Solid** **Sampled: 01/18/2019 08:14**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
02 Sample ID: OS-11-2' **Matrix:Solid** **Sampled: 01/18/2019 08:21**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
03 Sample ID: OS-11-5' **Matrix:Solid** **Sampled: 01/18/2019 08:33**		
S_Mercury 7471	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (F)		
04 Sample ID: SW-1-0.5' **Matrix:Solid** **Sampled: 01/18/2019 09:45**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
05 Sample ID: SW-1-2' **Matrix:Solid** **Sampled: 01/18/2019 09:49**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

Released By	Date	Time	Received By	Date	Time
[signature]	10/21/19	1052	[signature]	01 10/21/19	10:57
[signature]	10/21/19	11:37	[signature]	1.21.19	11:37

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901022

Analysis	Due	Comments
06 Sample ID: SW-1-C-5'	**Matrix:Solid**	**Sampled: 01/18/2019 09:53**
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
07 Sample ID: SW-1-B-5'	**Matrix:Solid**	**Sampled: 01/18/2019 09:56**
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
08 Sample ID: TL-4-0.5'	**Matrix:Solid**	**Sampled: 01/18/2019 10:48**
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
09 Sample ID: TL-4-2'	**Matrix:Solid**	**Sampled: 01/18/2019 10:50**
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
10 Sample ID: TL-4-5'	**Matrix:Solid**	**Sampled: 01/18/2019 10:53**
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
11 Sample ID: VP-5-0.5'	**Matrix:Solid**	**Sampled: 01/18/2019 11:50**
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

Released By	Date	Time	Received By	Date	Time
[signature]	10/21/19	1052	[signature]	10/21/19	10:53
[signature]	10/21/19	11:37	[signature]	10/21/19	11:37

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901022

Analysis	Due	Comments
2 Sample ID: VP-5-2' **Matrix:Solid** **Sampled: 01/18/2019 11:52**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
13 Sample ID: VP-5-5' **Matrix:Solid** **Sampled: 01/18/2019 11:54**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
14 Sample ID: CKDSP5-S01-0.5' **Matrix:Solid** **Sampled: 01/18/2019 13:38**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
15 Sample ID: CKDSP5-S01-2' **Matrix:Solid** **Sampled: 01/18/2019 13:40**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
16 Sample ID: CKDSP5-S01-5' **Matrix:Solid** **Sampled: 01/18/2019 13:45**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
17 Sample ID: CKDSP5-S02-0.5' **Matrix:Solid** **Sampled: 01/18/2019 13:50**		
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

Released By	Date	Time	Received By	Date	Time
[signature]	10/21/19	1052	[signature]	10/21/19	10:53
[signature]	10/21/19	11:37	[signature]	1-21-19	11:37

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901022

Analysis	Due	Comments
Sample ID: CKDSP5-S02-2' **Matrix:Solid**	**Sampled: 01/18/2019 13:57**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S02-5' **Matrix:Solid**	**Sampled: 01/18/2019 14:00**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S05-0.5' **Matrix:Solid**	**Sampled: 01/18/2019 14:08**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S05-2' **Matrix:Solid**	**Sampled: 01/18/2019 14:12**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S05-5' **Matrix:Solid**	**Sampled: 01/18/2019 14:15**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S04-0.5' **Matrix:Solid**	**Sampled: 01/18/2019 14:23**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

Released By	Date	Time	Received By	Date	Time
	10/21/19	1052		01 10/21/19	10:53
	10/21/19	11:37		1.21.19	11:37

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901022

Analysis	Due	Comments
Sample ID: CKDSP5-S04-2' **Matrix:Solid**	**Sampled: 01/18/2019 14:25**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S04-5' **Matrix:Solid**	**Sampled: 01/18/2019 14:28**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S03-0.5' **Matrix:Solid**	**Sampled: 01/18/2019 14:35**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S03-2' **Matrix:Solid**	**Sampled: 01/18/2019 14:37**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CKDSP5-S03-5' **Matrix:Solid**	**Sampled: 01/18/2019 14:42**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: WC-2-0.5' **Matrix:Solid**	**Sampled: 01/18/2019 14:02**	
S_Hexavalent Chromium 7199	01/28/2019 15:00	
S_Metals 6010B Title 22	01/28/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

Released By	Date	Time	Received By	Date	Time
[signature]	10/21/19	1052	[signature]	10/21/19	10:53
[signature]	10/21/19	11:37	[signature]	1.21.19	11:37

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901022

Analysis		Due	Comments
Sample ID: WC-2-2'	**Matrix:Solid**	**Sampled: 01/18/2019 15:00**	
S_Hexavalent Chromium 7199		01/28/2019 15:00	
S_Metals 6010B Title 22		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
Sample ID: WC-2-5'	**Matrix:Solid**	**Sampled: 01/18/2019 15:04**	
S_Hexavalent Chromium 7199		01/28/2019 15:00	
S_Metals 6010B Title 22		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
Sample ID: WC-1-0.5'	**Matrix:Solid**	**Sampled: 01/18/2019 15:16**	
S_Hexavalent Chromium 7199		01/28/2019 15:00	
S_Metals 6010B Title 22		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
Sample ID: WC-1-2'	**Matrix:Solid**	**Sampled: 01/18/2019 15:18**	
S_Hexavalent Chromium 7199		01/28/2019 15:00	
S_Metals 6010B Title 22		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
Sample ID: WC-1-5'	**Matrix:Solid**	**Sampled: 01/18/2019 15:25**	
S_Hexavalent Chromium 7199		01/28/2019 15:00	
S_Metals 6010B Title 22		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
	10/21/19	1052		10/21/19	10:53
	10/21/19	11:39		1-21-19	11:37

SunStar Laboratories — Celebrating 20 Years!

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T190154

Client Name: Performance Analytical Project: P901022

Delivered by: ☐ Client ☒ SunStar Courier ☐ GSO ☐ FedEx ☐ Other

If Courier, Received by: ali Date/Time Courier Received: 01/21/19 10:53

Lab Received by: sunny Date/Time Lab Received: 01/21/19 11:37

Total number of coolers received:

Temperature: Cooler #1	0.1 °C +/- the CF (1.2°C)	=	1.3	°C corrected temperature
Temperature: Cooler #2	°C +/- the CF (1.2°C)	=		°C corrected temperature
Temperature: Cooler #3	°C +/- the CF (1.2°C)	=		°C corrected temperature

Temperature criteria = ≤ 6°C (no frozen containers) Within criteria? ☑ **Yes** ☐ **No**

If NO:

Samples received on ice? ☐ Yes ☐ **No → Complete Non-Conformance Sheet**

If on ice, samples received same day collected? ☐ Yes → Acceptable ☐ **No → Complete Non-Conformance Sheet**

Custody seals intact on cooler/sample	☐ Yes	☐ No*	☑ N/A
Sample containers intact	☑ Yes	☐ No*	
Sample labels match Chain of Custody IDs	☑ Yes	☐ No*	
Total number of containers received match COC	☑ Yes	☐ No*	
Proper containers received for analyses requested on COC	☑ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☑ N/A
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times	☑ **Yes**	☐ **No***	

* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date: AH 01/21/19

Comments:

(949) 297-5020 ■ www.sunstarlabs.com ■ 25712 Commercentre Drive ■ Lake Forest, CA 92630

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

411366

Work Order ID: P901022

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis		Due	Comments
Sample ID: OS-11-1'	**Matrix:Solid**	**Sampled: 01/18/2019 08:19**	
S_PAH 8270 SIM		01/28/2019 15:00	
S_SVOA 8270C		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (E)			
Sample ID: OS-11-5'	**Matrix:Solid**	**Sampled: 01/18/2019 08:33**	
S_PAH 8270 SIM		01/28/2019 15:00	
S_SVOA 8270C		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (E)			
Sample ID: SW-1-0.5'	**Matrix:Solid**	**Sampled: 01/18/2019 09:45**	
S_Dioxin (17 Congeners)		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (B)			
Sample ID: SW-1-2'	**Matrix:Solid**	**Sampled: 01/18/2019 09:49**	
S_Dioxin (17 Congeners)		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (B)			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	1/21/19	1019	Ken	Enthalpy 1/21/19	1020
Kelvin Day	1/21/19	1447		01/21/19	1447

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: P901022

Date Received: 1/21/19 Sampler's Name Present: ☐ Yes ☒ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 2.6 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.7 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 01/21/19

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

Enthalpy Analytical Field Technician Request Form

Version # 2.7
Effective 9/10/15

Client Info

Client Name:	Performance Analytical Labs
Address:	2702 E. Willow Street
City:	Signal Hill
Ordered By:	Marycarol
Client Project Manager:	Marycarol Valenzuela
Phone:	(310) 809-1041
Email:	

Site Info

Address:	See above
City:	
Site Contact:	
Phone:	
2nd Site Contact:	
Phone:	

Request Completed By

Enthalpy Contact:	RKC
Date / Time:	01/21/19

Date(s) Needed:	01/21/19				
Before:		After:		Between:	Any
Assigned Field Technician:					
Arrival Time:		Leave Time:			
Pick Up	✓	**Delivery**			

Micro Sampling

1st Day:		Sampling Time:		# of samples:	
2nd Day:		Sampling Time:		# of samples:	
Verbal Notification required (ASAP):					
Primary Notification Contact Info:					
Secondary Notification Contact Info:					
Analysis:					

Water/Soil Sampling

ISCO:		Soil:		Water:	
Meter readings (ISCO):		# of samples:			
Analysis:					

Sampling Notes

TAT:		Return ASAP:		Return by:	

Comments/Instructions:
- p/u samples

Enthalpy Coordinator Use Only		Enthalpy PM Use Only	
Request Approved:		☑ Emailed ☐ Phoned ☐ No Notification	
Alternate Date/Time proposed:		Client contact notified:	Marycarol
Request Denied:			
Name / Signature:		Name / Signature:	RKC
Date/Time:		Date/Time:	01/21/19

Please initial and date any changes.

Performance Analytical Laboratories, Inc.

411366

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901022

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis		Due	Comments
Sample ID: OS-11-1'	**Matrix:Solid**	**Sampled: 01/18/2019 08:19**	
S_PAH 8270 SIM		01/28/2019 15:00	
S_SVOA 8270C		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (E)			
Sample ID: OS-11-5'	**Matrix:Solid**	**Sampled: 01/18/2019 08:33**	
S_PAH 8270 SIM		01/28/2019 15:00	
S_SVOA 8270C		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (E)			
Sample ID: SW-1-0.5'	**Matrix:Solid**	**Sampled: 01/18/2019 09:45**	
S_Dioxin (17 Congeners)		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (B)			
Sample ID: SW-1-2'	**Matrix:Solid**	**Sampled: 01/18/2019 09:49**	
S_Dioxin (17 Congeners)		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (B)			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	1/21/19	1019	Ken	Enthalpy 1/21/19	1020
Kelvin Day	1/21/19	1447		01/21/19	1447

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: P901022

Date Received: 1/21/19 Sampler's Name Present: ☐ Yes ☒ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 2.6 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.7 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 01/21/19

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www.enthalpy.com/socal

Enthalpy Analytical Field Technician Request Form

Version # 2.7
Effective 9/10/15

Client Info

Client Name:	Performance Analytical Labs
Address:	2702 E. Willow Street
City:	Signal Hill
Ordered By:	Marycarol
Client Project Manager:	Marycarol Valenzuela
Phone:	(310) 809-1041
Email:	

Site Info

Address:	See above
City:	
Site Contact:	
Phone:	
2nd Site Contact:	
Phone:	

Request Completed By

Enthalpy Contact:	RKC
Date / Time:	01/21/19

Date(s) Needed:	01/21/19				
Before:		After:		Between:	Any
Assigned Field Technician:					
Arrival Time:		Leave Time:			
Pick Up	✓	**Delivery**			

Micro Sampling

1st Day:		Sampling Time:		# of samples:	
2nd Day:		Sampling Time:		# of samples:	
Verbal Notification required (ASAP):					
Primary Notification Contact Info:					
Secondary Notification Contact Info:					
Analysis:					

Water/Soil Sampling

ISCO:		Soil:		Water:	
Meter readings (ISCO):		# of samples:			
Analysis:					

Sampling Notes

TAT:		Return ASAP:		Return by:	

Comments/Instructions:
- p/u samples

Enthalpy Coordinator Use Only		Enthalpy PM Use Only	
Request Approved:		☑ Emailed ☐ Phoned ☐ No Notification	
Alternate Date/Time proposed:		Client contact notified:	Marycarol
Request Denied:			
Name / Signature:		Name / Signature:	RKC
Date/Time:		Date/Time:	01/21/19

Please initial and date any changes.

Performance Analytical Laboratories, Inc.

ELAP 2960

February 19, 2019

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : DTSC Riverside

Work Order: P901016

Dear Neil Shukla

Enclosed are the results of analyses for samples received by our laboratory on 1/16/2019. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 5

Qualifiers and Definitions 6

Chain of Custody PDFs 7

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P901016-16	OS-5-5'		Solid	01/14/2019	01/16/2019
P901016-20	OS-7-5'		Solid	01/14/2019	01/16/2019
P901016-21	OS-7-10'		Solid	01/14/2019	01/16/2019

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Sample: OS-5-5' **P901016-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9021805)							
Hexavalent Chromium	ND	ug/kg	1	200	02/18/2019	EPA 7199	I-02

Sample: OS-7-5' **P901016-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9021805)							
Hexavalent Chromium	ND	ug/kg	1	200	02/18/2019	EPA 7199	I-02

Sample: OS-7-10' **P901016-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9021805)							
Hexavalent Chromium	ND	ug/kg	1	200	02/18/2019	EPA 7199	I-02

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Quality Control

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9021805										
Blank (9021805-BLK1)				Prepared & Analyzed: 02/18/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9021805-BS1)				Prepared & Analyzed: 02/18/2019						
Hexavalent Chromium	9490		200	ug/kg	10000		94.9	80-120		
Matrix Spike (9021805-MS1)		**Source: T190161-04**		Prepared & Analyzed: 02/18/2019						
Hexavalent Chromium	9230		200	ug/kg	9920	ND	93.1	75-125		
Matrix Spike Dup (9021805-MSD1)		**Source: T190161-04**		Prepared & Analyzed: 02/18/2019						
Hexavalent Chromium	9680		200	ug/kg	9840	ND	98.4	75-125	4.71	20

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Neil Shukla

Notes and Definitions

Item	Definition
I-02	This result was analyzed outside of the EPA recommended holding time.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 4

PAL WO#: P901016

Client Name	Langan
Address	515 S Flower Street, Suite 2860 Los Angeles, CA 90071 ~~90017~~
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

REQUESTED ANALYSIS

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	CrVI 7199	Total metals 6020
1	OS-9-0.5'	1/14/19	0811	S	1 G	X	X
2	OS-9-2'		0815	S	1 G		
3	OS-9-5'		0818	S	1 G		
4	OS-9-10'		0837	S	1 G		
5	OS-10-0.5'		0856	S			
6	OS-10-2'		0905	S			
7	OS-10-5'		0908	S			
8	OS-10-10'		0915	S			
9	OS-6-0.5'		0928	S			
10	OS-6-2'		0931	S			

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD 5 day	RUSH 24	48	72
EDD Required - Circle one:	Yes	No		
Type of EDD:				
Reciept Temp./ Initials: (Temp recorded is not corrected)	10.2°C MV			

RELINQUISHED BY

Signature: [signature] DATE: 1/16/19
Print: Kathleen Lo TIME: 0955
Company: Langan

RECEIVED BY

Signature: [signature] DATE: 1/16/19
Print: M Valenzuela TIME: 955
Company: PAL

RELINQUISHED BY

Signature: DATE:
Print: TIME:
Company:

RECEIVED BY

Signature: DATE:
Print: TIME:
Company:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-4612

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901016

Client Name	Langan
Address	515 S Flower St. Suite 2660, Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	CrVI 7199	Total Metals 6020	TPH 8015M	VOCs 8260B	SVOCs, PAH 8270C
1	OS-6-5'	1/14/19	0934	S	1 G	X	X			
2	OS-6-10'	1/14/19	1056	S	1 G	X	X			
3	OS-5-0.5		1115	S	1 G	X	X			
4	OS-5-1'		1116		2 G, VOAs			X	X	X
5	OS-5-2'		1120		1 G	X	X			
6	OS-5-5'		1127		2 G, VOAs	X	X	X	X	X
7	OS-7-0.5'		1157		1 G	X	X			
8	OS-7-1'		1159		2 G, VOAs			X	X	X
9	OS-7-2'		1202		1 G	X	X			
10	OS-7-5'	↓	1210	↓	2 G, VOAs	X	X	X	X	X

REQUESTED ANALYSIS

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): **STD** 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: Yes / No

Type of EDD:

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY

Signature: [signature]
Print: Kathleen Lo
Company: Langan
DATE: 1/16/19
TIME: 0955

RECEIVED BY

Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 1/16/19
TIME: 955

RELINQUISHED BY

Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY

Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)

Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)

Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-4613

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: 190106

Client Name	Langan
Address	515 S Flower St. Suite 2360 Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020	TPH 8015M	VOCs 8260B	SVOCs, PAH 8270C	PCBs 8082
1	OS-7-10'	1/14/19	1218	S	2G / VOAs	X	X	X	X	X	
2	OS-7-13'		1242		1G / VOAs			X	X		
3	OS-4-0.5'		1420		1G	X	X				
4	OS-4-1'		1422		1G						X
5	OS-4-2'		1429		1G	X	X				
6	BP-2		1459		1G	X	X				
7	OS-12-0.5'		1506		1G	X	X				
8	OS-12-2'		1510		1G	X	X				
9	OS-12-5'		1512		1G	X	X	X			
10	OS-12-10'		1526		2G	X	X	X			

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	(Yes)	No	

TAT Needed (circle one): (STD 5 day) RUSH 24 48 72

EDD Required - Circle one: (Yes) No

Type of EDD:

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: [signature]
Print: Kathleen Lo
Company: Langan
DATE: 1/16/19
TIME: 0955

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 1/16/19
TIME: 955

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-4614

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 4 of 4

PAL WO#: PQ01016

Client Name	Langan
Address	515 S Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020	TPH 8015M
1	OS-12-15'	1/14/19	1523	S	1G			X
2	BP-4	↓	1537	↓	1G			
3	BP-3		1539		↓	X	X	
4	BP-5		1541			X	X	
5	BP-6		1543			X	X	
6	BP-7	↓	1545	↓	↓	X	X	
7								
8								
9								
10								

G-4615

PAL Containers used:	(Yes)	No		
Type of Ice used:	(Wet)	Blue	None	
Sample Preservative:	Yes	No		

TAT Needed (circle one)	STD	RUSH		
	(5 day)	24	48	72

EDD Required - Circle one:	Yes	No
Type of EDD:		
Reciept Temp./ Initials: (Temp recorded is not corrected)		

RELINQUISHED BY

Signature:		DATE: 1/16/19
Print:	Kathleen Lo	
Company:	Langan	TIME: 0955

RECEIVED BY

Signature:		DATE: 1/16/19
Print:	M Valenzuela	
Company:	PAL	TIME: 955

RELINQUISHED BY

Signature:		DATE:
Print:		
Company:		TIME:

RECEIVED BY

Signature:		DATE:
Print:		
Company:		TIME:

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)

****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)

****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P901016

Cooler 1 OF 1

Client Langan

Date Received: 1/16/19

Courier ⊘ CLIENT ⊘ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	10.2	0.0	10.2	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

⊗ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	☒	☐	☐
All samples listed on COC(s) are present	☒	☐	☐
All sample info on containers are consistent with sample info on COC(s)	☒	☐	☐
Correct containers for analyses requested	☒	☐	☐
Sufficient volume for analyses requested	☒	☐	☐
Proper preservation chemical(s) noted on COC and/or sample container	☒	☐	☐
All samples received within method holding time	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm	☐	☐	☒

NOTES

Initials	Date	Initials	Date
MV	1/16/19		

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Sun Star Laboratories, Inc.
25712 Commercentre Drive
Lake Forest, CA 92630
Phone :(949) 297-5020
Fax: .

Analysis	TAT	Due	Comments
Sample ID: P901016-01 Matrix:Solid Sampled:01/14/2019 08:11			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
01 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-02 Matrix:Solid Sampled:01/14/2019 08:15			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
02 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-03 Matrix:Solid Sampled:01/14/2019 08:18			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
03 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

4.7

Released By	Date	Time	Received By	Date	Time
M Valenzuela	1/16/19	1307	Paul Bruno	1/16/19	13:07
Paul Bruno	1/16/19	14:08		1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-04 Matrix: Solid Sampled: 01/14/2019 08:37			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
4 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-05 Matrix: Solid Sampled: 01/14/2019 08:56			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
5 S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-06 Matrix: Solid Sampled: 01/14/2019 09:05			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
6 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-07 Matrix: Solid Sampled: 01/14/2019 09:08			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
7 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
M Vaquera	1/16/19	1307	Paul Burns	1/16/19	13:07
Paul Burns	1/16/19	14:08		1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-08 Matrix: Solid Sampled: 01/14/2019 09:15			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-09 Matrix: Solid Sampled: 01/14/2019 09:28			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-10 Matrix: Solid Sampled: 01/14/2019 09:31			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-11 Matrix: Solid Sampled: 01/14/2019 09:34			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
M Vasquez	1/16/19	1307	Paul Dunn	1/16/19	13:07
Paul Dunn	1/16/19	14:08		1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-12 Matrix:Solid Sampled:01/14/2019 10:56			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
2 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-13 Matrix:Solid Sampled:01/14/2019 11:15			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
3 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-15 Matrix:Solid Sampled:01/14/2019 11:20			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
4 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-16 Matrix:Solid Sampled:01/14/2019 11:27			
5 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (F)			

Released By	Date	Time	Received By	Date	Time
M Vasquez	1/16/19	1307	Paul Dennis	1/16/19	13:07
Paul Dennis	1/16/19	14:08		1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-17 Matrix:Solid Sampled:01/14/2019 11:57			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
6 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-19 Matrix:Solid Sampled:01/14/2019 12:02			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
7 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-20 Matrix:Solid Sampled:01/14/2019 12:10			
S_Mercury 7471	5	01/23/2019 15:00	
8 S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (F)			
Sample ID: P901016-21 Matrix:Solid Sampled:01/14/2019 12:18			
S_Mercury 7471	5	01/23/2019 15:00	
9 S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (F)			

Released By	Date	Time	Received By	Date	Time
M Vasquez	1/16/19	1307	Paul Dunn	1/16/19	13:07
Paul Dunn	1/16/19	14:08		1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-22 Matrix:Solid Sampled:01/14/2019 12:42			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
0 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-23 Matrix:Solid Sampled:01/14/2019 14:20			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
-1 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-24 Matrix:Solid Sampled:01/14/2019 14:22			
-2 S_PCB 8082	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-25 Matrix:Solid Sampled:01/14/2019 14:29			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
-3 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
[signature]	1/16/19	1307	[signature]	1/16/19	13:07
[signature]	1/16/19	14:08	[signature]	1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-26 Matrix: Solid Sampled: 01/14/2019 14:59			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
.4 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-27 Matrix: Solid Sampled: 01/14/2019 15:06			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
.5 S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-28 Matrix: Solid Sampled: 01/14/2019 15:10			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
.6 S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-29 Matrix: Solid Sampled: 01/14/2019 15:12			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
7 S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (B)			

Released By	Date	Time	Received By	Date	Time
[signature]	1/16/19	1307	Paul Dunn	1/16/19	13:07
Paul Dunn	1/16/19	14:08	[signature]	1-16-19	1408

Performance Analytical Laboratories, Inc.

T190115

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-30 Matrix: Solid Sampled: 01/14/2019 15:26			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (B)			
Sample ID: P901016-32 Matrix: Solid Sampled: 01/14/2019 15:37			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-33 Matrix: Solid Sampled: 01/14/2019 15:39			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-34 Matrix: Solid Sampled: 01/14/2019 15:41			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
[signature]	1/16/19	1307	[signature]	1/16/19	13:07
[signature]	1/16/19	14:08	[signature]	1-16-19	1408

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

T190115

Work Order ID: P901016

Analysis	TAT	Due	Comments
Sample ID: P901016-35 **Matrix: Solid** **Sampled: 01/14/2019 15:43**			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			
Sample ID: P901016-36 **Matrix: Solid** **Sampled: 01/14/2019 15:45**			
S_Hexavalent Chromium 7199	5	01/23/2019 15:00	
S_Mercury 7471	5	01/23/2019 15:00	
S_Metals 6010B Title 22	5	01/23/2019 15:00	
Containers Supplied: Glass Jar, 4 oz (A)			

Released By	Date	Time	Received By	Date	Time
[illegible]	1/16/19	1307	Paul Bruno	1/16/19	13:07
Paul Bruno	1/16/19	14:08	[signature]	1-16-19	1408

SunStar Laboratories — Celebrating 20 Years!

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T190115

Client Name: PAL Project: DTSC RIVERSIDE

Delivered by: ☐ Client ☒ SunStar Courier ☐ GSO ☐ FedEx ☐ Other

If Courier, Received by: PAUL Date/Time Courier Received: 1-16-19 1307

Lab Received by: DAN Date/Time Lab Received: 1-16-19 1408

Total number of coolers received:

Temperature: Cooler #1 3.5	°C +/- the CF (1.2°C) = 4.7	°C corrected temperature	
Temperature: Cooler #2	°C +/- the CF (1.2°C) =	°C corrected temperature	
Temperature: Cooler #3	°C +/- the CF (1.2°C) =	°C corrected temperature	
Temperature criteria = ≤ 6°C (no frozen containers)	Within criteria?	☒ **Yes**	☐ **No**
If NO:			
Samples received on ice?	☐ Yes	☐ **No → Complete Non-Conformance Sheet**	
If on ice, samples received same day collected?	☐ Yes → Acceptable	☐ **No → Complete Non-Conformance Sheet**	

Custody seals intact on cooler/sample	☐ Yes	☐ No*	☒ N/A
Sample containers intact	☒ Yes	☐ No*	
Sample labels match Chain of Custody IDs	☒ Yes	☐ No*	
Total number of containers received match COC	☒ Yes	☐ No*	
Proper containers received for analyses requested on COC	☒ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☒ N/A
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times	☒ **Yes**	☐ **No***	

* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date: BC 1-16-19

Comments:

(949) 297-5020 ■ www.sunstarlabs.com ■ 25712 Commercentre Drive ■ Lake Forest, CA 92630

Performance Analytical Laboratories, Inc.

ELAP 2960

February 19, 2019

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : DTSC Riverside

Work Order: P901024

Dear Brad McCardell

Enclosed are the results of analyses for samples received by our laboratory on 1/22/2019. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report 3

Sample Results 4

Quality Assurance Results 44

Qualifiers and Definitions 63

Chain of Custody PDFs 64

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Samples in this Report

Lab ID	Sample	Qualifier	Matrix	Date Sampled	Date Received
P901024-01	OS-8-0.5'		Solid	01/21/2019	01/22/2019
P901024-02	OS-8-1'		Solid	01/21/2019	01/22/2019
P901024-03	OS-8-2'		Solid	01/21/2019	01/22/2019
P901024-04	OS-8-5'		Solid	01/21/2019	01/22/2019
P901024-05	OS-8-10'		Solid	01/21/2019	01/22/2019
P901024-06	OSG-4-0.5'		Solid	01/21/2019	01/22/2019
P901024-07	OSG-4-1'		Solid	01/21/2019	01/22/2019
P901024-08	VP-3-0.5'		Solid	01/21/2019	01/22/2019
P901024-09	VP-3-2'		Solid	01/21/2019	01/22/2019
P901024-10	VP-3-5'		Solid	01/21/2019	01/22/2019
P901024-11	OSG-3-0.5'		Solid	01/21/2019	01/22/2019
P901024-12	OSG-3-1'		Solid	01/21/2019	01/22/2019
P901024-13	OSG-2-0.5'		Solid	01/21/2019	01/22/2019
P901024-14	OSG-2-1'		Solid	01/21/2019	01/22/2019
P901024-15	VP-4-0.5'		Solid	01/21/2019	01/22/2019
P901024-16	VP-4-2'		Solid	01/21/2019	01/22/2019
P901024-17	VP-4-5'		Solid	01/21/2019	01/22/2019
P901024-18	CL-1		Solid	01/21/2019	01/22/2019
P901024-19	CL-2		Solid	01/21/2019	01/22/2019
P901024-20	OSG-1-0.5'		Solid	01/21/2019	01/22/2019
P901024-21	OSG-1-1'		Solid	01/21/2019	01/22/2019
P901024-22	VP-1-0.5'		Solid	01/21/2019	01/22/2019
P901024-23	VP-1-2'		Solid	01/21/2019	01/22/2019
P901024-24	VP-1-5'		Solid	01/21/2019	01/22/2019
P901024-25	VP-2-0.5'		Solid	01/21/2019	01/22/2019
P901024-26	VP-2-2'		Solid	01/21/2019	01/22/2019
P901024-27	VP-2-5'		Solid	01/21/2019	01/22/2019

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-0.5' **P901024-01 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	**0.35**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**4.0**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**110**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	**0.85**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**25**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**12**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**20**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**29**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**12**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**61**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**110**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-1' **P901024-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022)							
C7-C8	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C28-C33	**10.4**	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C34-C40	**10.4**	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	103%			60-140	01/24/2019	EPA 8015B (M)	
PAH-SIM_Subcontract (Batch ID: QC1210443)							
1-Methylnaphthalene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
2-Methylnaphthalene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Acenaphthene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Acenaphthylene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Anthracene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Benz(a)anthracene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Benzo(a)pyrene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Benzo(b)fluoranthene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Benzo(g,h,i)perylene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Benzo(k)fluoranthene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Chrysene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Dibenz(a,h)anthracene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Fluoranthene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Fluorene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Naphthalene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Phenanthrene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Pyrene	ND	ug/Kg	5	50	01/25/2019	EPA 8270CM	D2
Surrogate: 2-Fluorobiphenyl (SUR)	66%			30-120	01/25/2019	EPA 8270CM	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-1' (Continued) **P901024-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PAH-SIM_Subcontract (Batch ID: QC1210443) (Continued)							
Surrogate: Nitrobenzene-d5 (SUR)	69%			27-125	01/25/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	71%			33-155	01/25/2019	EPA 8270CM	
PCBs_Subcontract (Batch ID: 9012519)							
PCB-1016	ND	ug/kg	1	10	01/28/2019	EPA 8082	
PCB-1221	ND	ug/kg	1	10	01/28/2019	EPA 8082	
PCB-1232	ND	ug/kg	1	10	01/28/2019	EPA 8082	
PCB-1242	ND	ug/kg	1	10	01/28/2019	EPA 8082	
PCB-1248	ND	ug/kg	1	10	01/28/2019	EPA 8082	
PCB-1254	ND	ug/kg	1	10	01/28/2019	EPA 8082	
PCB-1260	ND	ug/kg	1	10	01/28/2019	EPA 8082	
Surrogate: Tetrachloro-meta-xylene	128%			35-140	01/28/2019	EPA 8082	
Surrogate: Decachlorobiphenyl	131%			35-140	01/28/2019	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442)							
1,2,4-Trichlorobenzene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
1,2-Dichlorobenzene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
1,3-Dichlorobenzene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
1,4-Dichlorobenzene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
1-Methylnaphthalene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2,4,5-Trichlorophenol	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2,4,6-Trichlorophenol	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2,4-Dichlorophenol	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2,4-Dimethylphenol	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2,4-Dinitrophenol	ND	ug/Kg	5	6000	01/25/2019	EPA 8270C	D2
2,4-Dinitrotoluene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2,6-Dinitrotoluene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2-Chloronaphthalene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2-Chlorophenol	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2-Methylnaphthalene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2-Methylphenol (o-Cresol)	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2-Nitroaniline	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
2-Nitrophenol	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	5	2000	01/25/2019	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-1' (Continued) **P901024-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
3,3'-Dichlorobenzidine	ND	ug/Kg	5	6000	01/25/2019	EPA 8270C	D2
3-Nitroaniline	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
4-Bromophenyl phenyl ether	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
4-Chloro-3-methylphenol	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
4-Chloroaniline	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
4-Chlorophenyl phenyl ether	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
4-Nitroaniline	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
4-Nitrophenol	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Acenaphthene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Acenaphthylene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Aniline	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Anthracene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Azobenzene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Benz(a)anthracene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Benzidine	ND	ug/Kg	5	6000	01/25/2019	EPA 8270C	D2
Benzo(a)pyrene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Benzo(b)fluoranthene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Benzo(g,h,i)perylene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Benzo(k)fluoranthene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Benzoic acid	ND	ug/Kg	5	6000	01/25/2019	EPA 8270C	D2
Benzyl alcohol	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Bis(2-chloroethoxy)methane	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Bis(2-chloroethyl) Ether	ND	ug/Kg	5	6000	01/25/2019	EPA 8270C	D2
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Butylbenzyl Phthalate	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Carbazole	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Chrysene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Dibenz(a,h)anthracene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Dibenzofuran	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Diethyl phthalate	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Dimethyl phthalate	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Di-n-butyl phthalate	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Di-n-octyl phthalate	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Fluoranthene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Fluorene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-1' (Continued) **P901024-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
Hexachlorobenzene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Hexachlorobutadiene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Hexachlorocyclopentadiene	ND	ug/Kg	5	6000	01/25/2019	EPA 8270C	D2
Hexachloroethane	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Isophorone	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Naphthalene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Nitrobenzene	ND	ug/Kg	5	6000	01/25/2019	EPA 8270C	D2
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
N-Nitrosodiphenylamine	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Pentachlorophenol	ND	ug/Kg	5	6000	01/25/2019	EPA 8270C	D2
Phenanthrene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Phenol	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Pyrene	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Pyridine	ND	ug/Kg	5	1250	01/25/2019	EPA 8270C	D2
Total Cresol	ND	ug/Kg	5	2000	01/25/2019	EPA 8270C	D2
Surrogate: 2,4,6-Tribromophenol (SUR)	94%			34-143	01/25/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	65%			41-125	01/25/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	46%			13-153	01/25/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	49%			27-125	01/25/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	56%			10-110	01/25/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	73%			33-155	01/25/2019	EPA 8270C	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023)							
Acetone	**45**	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	52	01/23/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-1' (Continued) **P901024-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)							
n-Butylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-1' (Continued) **P901024-02 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)							
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	10	01/23/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	26	01/23/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.1	01/23/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.1	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-1' (Continued)

P901024-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)							
Surrogate: Dibromofluoromethane	108%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	98.1%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	113%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	99.1%			60-140	01/23/2019	EPA 8260B/5035	

Sample: OS-8-2'

P901024-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**3.4**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**150**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	**0.56**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**18**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**8.9**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**16**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**18**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**8.2**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	**0.40**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**53**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**61**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-5' **P901024-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Carbon Chain Analysis (C7-C40) (Batch ID: B9A0022)							
C7-C8	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C9-C10	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C11-C12	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C13-C14	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C15-C16	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C17-C18	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C19-C20	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C21-C22	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C23-C24	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C25-C27	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C28-C33	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
C34-C40	ND	mg/kg	1	10.0	01/24/2019	EPA 8015B (M)	
Surrogate: n-Octacosane (c28)	106%			60-140	01/24/2019	EPA 8015B (M)	
Hexavalent Chromium_Subcontract (Batch ID: 9021805)							
Hexavalent Chromium	ND	ug/kg	1	200	02/18/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**1.4**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**160**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**15**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**8.2**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**7.0**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**2.8**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**5.8**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-5' (Continued) **P901024-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507) (Continued)							
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	**0.49**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**48**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**49**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
PAH-SIM_Subcontract (Batch ID: QC1210443)							
1-Methylnaphthalene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
2-Methylnaphthalene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Acenaphthene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Acenaphthylene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Anthracene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Benz(a)anthracene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Benzo(a)pyrene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Benzo(b)fluoranthene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Benzo(g,h,i)perylene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Benzo(k)fluoranthene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Chrysene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Dibenz(a,h)anthracene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Fluoranthene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Fluorene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Naphthalene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Phenanthrene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Pyrene	ND	ug/Kg	2	20	01/25/2019	EPA 8270CM	D2
Surrogate: 2-Fluorobiphenyl (SUR)	60%			30-120	01/25/2019	EPA 8270CM	
Surrogate: Nitrobenzene-d5 (SUR)	67%			27-125	01/25/2019	EPA 8270CM	
Surrogate: p-Terphenyl (SUR)	70%			33-155	01/25/2019	EPA 8270CM	
PCBs_Subcontract (Batch ID: 9012519)							
PCB-1016	ND	ug/kg	1	10	01/28/2019	EPA 8082	
PCB-1221	ND	ug/kg	1	10	01/28/2019	EPA 8082	
PCB-1232	ND	ug/kg	1	10	01/28/2019	EPA 8082	
PCB-1242	ND	ug/kg	1	10	01/28/2019	EPA 8082	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-5' (Continued) **P901024-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
PCBs_Subcontract (Batch ID: 9012519) (Continued)							
PCB-1248	ND	ug/kg	1	10	01/28/2019	EPA 8082	
PCB-1254	ND	ug/kg	1	10	01/28/2019	EPA 8082	
PCB-1260	ND	ug/kg	1	10	01/28/2019	EPA 8082	
Surrogate: Tetrachloro-meta-xylene	119%			35-140	01/28/2019	EPA 8082	
Surrogate: Decachlorobiphenyl	128%			35-140	01/28/2019	EPA 8082	
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442)							
1,2,4-Trichlorobenzene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
1,2-Dichlorobenzene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
1,3-Dichlorobenzene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
1,4-Dichlorobenzene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
1-Methylnaphthalene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2,4,5-Trichlorophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2,4,6-Trichlorophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2,4-Dichlorophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2,4-Dimethylphenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2,4-Dinitrophenol	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
2,4-Dinitrotoluene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2,6-Dinitrotoluene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Chloronaphthalene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Chlorophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Methyl-4,6-dinitrophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Methylnaphthalene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Methylphenol (o-Cresol)	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Nitroaniline	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
2-Nitrophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
3 and 4-Methylphenol (m and p-Cresol)	ND	ug/Kg	2	800	01/25/2019	EPA 8270C	D2
3,3'-Dichlorobenzidine	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
3-Nitroaniline	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
4-Bromophenyl phenyl ether	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
4-Chloro-3-methylphenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
4-Chloroaniline	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
4-Chlorophenyl phenyl ether	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
4-Nitroaniline	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
4-Nitrophenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-5' (Continued) **P901024-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
Acenaphthene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Acenaphthylene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Aniline	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Anthracene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Azobenzene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Benz(a)anthracene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Benzidine	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
Benzo(a)pyrene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Benzo(b)fluoranthene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Benzo(g,h,i)perylene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Benzo(k)fluoranthene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Benzoic acid	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
Benzyl alcohol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Bis(2-chloroethoxy)methane	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Bis(2-chloroethyl) Ether	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
Bis(2-chloroisopropyl) Ether	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Bis(2-ethylhexyl) phthalate	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Butylbenzyl Phthalate	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Carbazole	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Chrysene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Dibenz(a,h)anthracene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Dibenzofuran	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Diethyl phthalate	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Dimethyl phthalate	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Di-n-butyl phthalate	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Di-n-octyl phthalate	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Fluoranthene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Fluorene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Hexachlorobenzene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Hexachlorobutadiene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Hexachlorocyclopentadiene	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
Hexachloroethane	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Indeno(1,2,3-cd)pyrene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Isophorone	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Naphthalene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Nitrobenzene	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-5' (Continued) **P901024-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Semi-Volatile Organic Compounds_Subcontract (Batch ID: QC1210442) (Continued)							
N-Nitrosodimethylamine (NDMA)	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
N-Nitrosodi-n-propylamine (NDPA)	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
N-Nitrosodiphenylamine	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Pentachlorophenol	ND	ug/Kg	2	2400	01/25/2019	EPA 8270C	D2
Phenanthrene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Phenol	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Pyrene	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Pyridine	ND	ug/Kg	2	500	01/25/2019	EPA 8270C	D2
Total Cresol	ND	ug/Kg	2	800	01/25/2019	EPA 8270C	D2
Surrogate: 2,4,6-Tribromophenol (SUR)	57%			34-143	01/25/2019	EPA 8270C	
Surrogate: 2-Fluorobiphenyl (SUR)	67%			41-125	01/25/2019	EPA 8270C	
Surrogate: 2-Fluorophenol (SUR)	53%			13-153	01/25/2019	EPA 8270C	
Surrogate: Nitrobenzene-d5 (SUR)	49%			27-125	01/25/2019	EPA 8270C	
Surrogate: Phenol-d5 (SUR)	66%			10-110	01/25/2019	EPA 8270C	
Surrogate: p-Terphenyl (SUR)	86%			33-155	01/25/2019	EPA 8270C	
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023)							
Acetone	**42**	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	52	01/23/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-5' (Continued) **P901024-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)							
2-Chlorotoluene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	5.2	01/23/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-5' (Continued) **P901024-04 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)							
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	10	01/23/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	26	01/23/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	21	01/23/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Trichloroethene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	1.0	01/23/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	2.1	01/23/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	3.1	01/23/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	106%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	94.5%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	111%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	96.3%			60-140	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-10' **P901024-05 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Acetone	**25**	µg/Kg	1	18	01/23/2019	EPA 8260B/5035	
Acetonitrile	ND	µg/Kg	1	45	01/23/2019	EPA 8260B/5035	
Allyl Chloride	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Benzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Bromobenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Bromochloromethane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Bromodichloromethane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Bromoform	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Bromomethane	ND	µg/Kg	1	4.5	01/23/2019	EPA 8260B/5035	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	18	01/23/2019	EPA 8260B/5035	
n-Butylbenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Carbon Disulfide	ND	µg/Kg	1	4.5	01/23/2019	EPA 8260B/5035	
Carbon Tetrachloride	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Chlorobenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Chloroethane	ND	µg/Kg	1	4.5	01/23/2019	EPA 8260B/5035	
Chloroform	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Chloromethane	ND	µg/Kg	1	4.5	01/23/2019	EPA 8260B/5035	
Chloroprene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
2-Chlorotoluene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
4-Chlorotoluene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	4.5	01/23/2019	EPA 8260B/5035	
Dibromochloromethane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Dibromomethane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,2-Dichloroethane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,1-Dichloroethene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-10' (Continued) **P901024-05 (Solid)**

Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
1,2-Dichloropropane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,3-Dichloropropane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
2,2-Dichloropropane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,1-Dichloropropene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Diethyl Ether	ND	µg/Kg	1	4.5	01/23/2019	EPA 8260B/5035	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Ethylbenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Ethyl Methacrylate	ND	µg/Kg	1	4.5	01/23/2019	EPA 8260B/5035	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
2-Hexanone	ND	µg/Kg	1	4.5	01/23/2019	EPA 8260B/5035	
Isopropylbenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
p-Isopropyltoluene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Methacrylonitrile	ND	µg/Kg	1	4.5	01/23/2019	EPA 8260B/5035	
Methylene Chloride	ND	µg/Kg	1	18	01/23/2019	EPA 8260B/5035	
Methyl Methacrylate	ND	µg/Kg	1	4.5	01/23/2019	EPA 8260B/5035	
4-Methyl-2-Pentanone	ND	µg/Kg	1	18	01/23/2019	EPA 8260B/5035	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Naphthalene	ND	µg/Kg	1	9.1	01/23/2019	EPA 8260B/5035	
Propionitrile	ND	µg/Kg	1	18	01/23/2019	EPA 8260B/5035	
n-Propylbenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
sec-Butylbenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Styrene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	23	01/23/2019	EPA 8260B/5035	
tert-Butylbenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Tetrachloroethene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Tetrahydrofuran	ND	µg/Kg	1	18	01/23/2019	EPA 8260B/5035	
Toluene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OS-8-10' (Continued) **P901024-05 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds by EPA 5035 (Batch ID: B9A0023) (Continued)							
Trichloroethene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Trichlorofluoromethane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
Vinyl Chloride	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
o-Xylene	ND	µg/Kg	1	0.91	01/23/2019	EPA 8260B/5035	
p/m-Xylene	ND	µg/Kg	1	1.8	01/23/2019	EPA 8260B/5035	
Total Xylenes	ND	µg/Kg	1	2.7	01/23/2019	EPA 8260B/5035	
Surrogate: Dibromofluoromethane	107%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 4-Bromofluorobenzene	93.6%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: 1,2-Dichloroethane-d4	111%			60-140	01/23/2019	EPA 8260B/5035	
Surrogate: Toluene-d8	98.5%			60-140	01/23/2019	EPA 8260B/5035	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OSG-4-0.5' **P901024-06 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**4.7**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**66**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**15**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**6.2**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**14**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**7.5**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**12**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**35**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OSG-4-1' **P901024-07 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012523)							
Mercury	ND	mg/kg	1	0.10	01/25/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**5.3**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**66**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	**0.35**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**16**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**6.1**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**13**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**10**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**14**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**36**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-3-0.5' **P901024-08 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**3.6**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**710**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	**0.85**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**50**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**9.6**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**46**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**14**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	**2.8**	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**22**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	**1.5**	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	**0.25**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	**0.43**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**61**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**53**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-3-2' **P901024-09 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	**0.30**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**7.1**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**590**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	**0.44**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**48**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**34**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**150**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**15**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	**1.8**	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**60**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	**1.3**	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	**0.33**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	**0.43**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**78**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**110**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-3-5' **P901024-10 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**3.3**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**460**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**52**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**23**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**140**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**2.8**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	**4.8**	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**48**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	**0.43**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	**0.51**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**86**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**61**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OSG-3-0.5' **P901024-11 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	**230**	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**7.5**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**82**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	**0.46**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**16**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**5.9**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**14**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**22**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**13**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**30**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**39**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OSG-3-1' **P901024-12 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**6.5**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**62**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	**0.25**	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	**0.90**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**14**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**5.6**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**14**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**19**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**13**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**26**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**48**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OSG-2-0.5' **P901024-13 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**4.4**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**64**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**15**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**6.6**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**12**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**12**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**10**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**33**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**38**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OSG-2-1' **P901024-14 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**3.9**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**44**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**9.2**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**4.1**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**8.9**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**5.8**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**8.2**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**19**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**24**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-4-0.5' **P901024-15 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**3.5**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**260**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	**0.41**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**16**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**7.4**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**13**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**13**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**8.2**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	**0.27**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**37**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**47**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-4-2' **P901024-16 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**3.4**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**340**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**21**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**10**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**12**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**3.6**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**7.7**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	**0.41**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**56**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**51**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-4-5' **P901024-17 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**2.6**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**290**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**22**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**11**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**17**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**4.6**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**7.9**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	**0.38**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**51**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**49**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CL-1 **P901024-18 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	**300**	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	**0.32**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**4.7**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**110**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	**0.88**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**18**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**4.2**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**12**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**70**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	**0.73**	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**8.5**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**20**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**68**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: CL-2 **P901024-19 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	**0.78**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	
Arsenic	**17**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	
Barium	**220**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.23	01/29/2019	6020 ICP-MS	
Cadmium	**3.3**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	
Chromium	**31**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	
Cobalt	**5.3**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	
Copper	**28**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	
Lead	**190**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.023	01/25/2019	6020 ICP-MS	
Molybdenum	**1.8**	mg/kg	1	0.23	01/29/2019	6020 ICP-MS	
Nickel	**27**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	
Selenium	**2.2**	mg/kg	1	1.1	01/25/2019	6020 ICP-MS	
Silver	**0.52**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	
Thallium	**0.40**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	
Vanadium	**43**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	
Zinc	**110**	mg/kg	1	0.23	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OSG-1-0.5' **P901024-20 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**4.5**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**180**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	**0.95**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**22**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**7.2**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**15**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**15**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**11**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	**1.7**	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**36**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**59**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: OSG-1-1' **P901024-21 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**2.8**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**99**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	**0.34**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**20**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**10**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**13**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**10**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**8.8**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**46**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**57**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-1-0.5' **P901024-22 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	**1.3**	mg/kg	2	0.20	01/29/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012507)							
Antimony	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Arsenic	**6.8**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Barium	**49**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Cadmium	**0.73**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Chromium	**15**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Cobalt	**6.6**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Copper	**9.7**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Lead	**17**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/25/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/29/2019	6020 ICP-MS	
Nickel	**5.7**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/25/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Vanadium	**29**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	
Zinc	**56**	mg/kg	1	0.25	01/25/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-1-2' **P901024-23 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012409)							
Hexavalent Chromium	ND	ug/kg	1	200	01/25/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	**0.40**	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**7.1**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**46**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	**0.51**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**14**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**6.2**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**8.0**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**9.7**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/28/2019	6020 ICP-MS	
Molybdenum	**0.33**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**5.0**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Vanadium	**27**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**48**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-1-5' **P901024-24 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**2.3**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**18**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	**0.25**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**19**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**11**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**2.5**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**6.2**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/28/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**6.5**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Vanadium	**45**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**55**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-2-0.5' **P901024-25 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**8.4**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**81**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	**1.5**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**17**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**5.1**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**7.0**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**4.7**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/28/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**5.8**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Vanadium	**12**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**140**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-2-2' **P901024-26 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/28/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**6.9**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**120**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	**0.33**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**12**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**3.8**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**5.2**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**2.2**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/28/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**3.6**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Vanadium	**17**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**40**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Sample: VP-2-5' **P901024-27 (Solid)**

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Hexavalent Chromium_Subcontract (Batch ID: 9012412)							
Hexavalent Chromium	ND	ug/kg	1	200	01/28/2019	EPA 7199	
Mercury_Subcontract (Batch ID: 9012529)							
Mercury	ND	mg/kg	1	0.10	01/29/2019	EPA 7471A Soil	
Metals, Title 22 ICP-MS_Subcontract (Batch ID: 9012509)							
Antimony	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Arsenic	**13**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Barium	**40**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Beryllium	**0.29**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cadmium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Chromium	**6.4**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Cobalt	**7.5**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Copper	**0.92**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Lead	**1.8**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Mercury	ND	mg/kg	1	0.025	01/28/2019	6020 ICP-MS	
Molybdenum	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Nickel	**4.1**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Selenium	ND	mg/kg	1	1.2	01/28/2019	6020 ICP-MS	
Silver	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Thallium	ND	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Vanadium	**5.2**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	
Zinc	**150**	mg/kg	1	0.25	01/28/2019	6020 ICP-MS	

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
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Quality Control

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0022										
Blank (B9A0022-BLK1)				Prepared & Analyzed: 01/24/2019						
C7-C8	ND		10.0	mg/kg						
C9-C10	ND		10.0	mg/kg						
C11-C12	ND		10.0	mg/kg						
C13-C14	ND		10.0	mg/kg						
C15-C16	ND		10.0	mg/kg						
C17-C18	ND		10.0	mg/kg						
C19-C20	ND		10.0	mg/kg						
C21-C22	ND		10.0	mg/kg						
C23-C24	ND		10.0	mg/kg						
C25-C27	ND		10.0	mg/kg						
C28-C33	ND		10.0	mg/kg						
C34-C40	ND		10.0	mg/kg						
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.04		95.1	60-140		
LCS (B9A0022-BS1)				Prepared & Analyzed: 01/24/2019						
Diesel	44.4		10.0	mg/kg	50.0		88.9	70-130		
Surrogate: n-Octacosane (c28)	2.07			mg/kg	2.04		101	60-140		
LCS Dup (B9A0022-BSD1)				Prepared & Analyzed: 01/24/2019						
Diesel	45.4		10.0	mg/kg	50.0		90.8	70-130	2.09	20
Surrogate: n-Octacosane (c28)	2.01			mg/kg	2.04		98.4	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Hexavalent Chromium_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012409										
Blank (9012409-BLK1)				Prepared: 01/24/2019 Analyzed: 01/25/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9012409-BS1)				Prepared: 01/24/2019 Analyzed: 01/25/2019						
Hexavalent Chromium	10300		200	ug/kg	10000		103	80-120		
Matrix Spike (9012409-MS1)		**Source: P901024-01**		Prepared: 01/24/2019 Analyzed: 01/25/2019						
Hexavalent Chromium	8850		200	ug/kg	10000	ND	88.5	75-125		
Matrix Spike Dup (9012409-MSD1)		**Source: P901024-01**		Prepared: 01/24/2019 Analyzed: 01/25/2019						
Hexavalent Chromium	9560		200	ug/kg	10000	ND	95.6	75-125	7.66	20
Batch: 9012412										
Blank (9012412-BLK1)				Prepared: 01/24/2019 Analyzed: 01/28/2019						
Hexavalent Chromium	ND		200	ug/kg						
LCS (9012412-BS1)				Prepared: 01/24/2019 Analyzed: 01/28/2019						
Hexavalent Chromium	10300		200	ug/kg	10000		103	80-120		
Matrix Spike (9012412-MS1)		**Source: P901024-24**		Prepared: 01/24/2019 Analyzed: 01/28/2019						
Hexavalent Chromium	9650		200	ug/kg	10000	ND	96.5	75-125		
Matrix Spike Dup (9012412-MSD1)		**Source: P901024-24**		Prepared: 01/24/2019 Analyzed: 01/28/2019						
Hexavalent Chromium	9560		200	ug/kg	9880	ND	96.8	75-125	0.920	20
Batch: 9021805										
Blank (9021805-BLK1)				Prepared & Analyzed: 02/18/2019						
Hexavalent Chromium	ND		200	ug/kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Hexavalent Chromium_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9021805 (Continued)										
LCS (9021805-BS1)				Prepared & Analyzed: 02/18/2019						
Hexavalent Chromium	9490		200	ug/kg	10000		94.9	80-120		
Matrix Spike (9021805-MS1)		**Source: P901024-04**		Prepared & Analyzed: 02/18/2019						
Hexavalent Chromium	9230		200	ug/kg	9920	ND	93.1	75-125		
Matrix Spike Dup (9021805-MSD1)		**Source: P901024-04**		Prepared & Analyzed: 02/18/2019						
Hexavalent Chromium	9680		200	ug/kg	9840	ND	98.4	75-125	4.71	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012523										
Blank (9012523-BLK1)				Prepared & Analyzed: 01/25/2019						
Mercury	ND		0.10	mg/kg						
LCS (9012523-BS1)				Prepared & Analyzed: 01/25/2019						
Mercury	0.361		0.10	mg/kg	0.417		86.7	80-120		
Matrix Spike (9012523-MS1)		**Source: P901024-01**		Prepared & Analyzed: 01/25/2019						
Mercury	0.392		0.10	mg/kg	0.397	0.0387	89.1	75-125		
Matrix Spike Dup (9012523-MSD1)		**Source: P901024-01**		Prepared & Analyzed: 01/25/2019						
Mercury	0.420		0.10	mg/kg	0.410	0.0387	93.1	75-125	6.89	20
Batch: 9012529										
Blank (9012529-BLK1)				Prepared: 01/25/2019 Analyzed: 01/28/2019						
Mercury	ND		0.10	mg/kg						
LCS (9012529-BS1)				Prepared: 01/25/2019 Analyzed: 01/28/2019						
Mercury	0.340		0.10	mg/kg	0.417		81.6	80-120		
Matrix Spike (9012529-MS1)		**Source: P901024-08**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Mercury	0.346		0.10	mg/kg	0.403	ND	85.8	75-125		
Matrix Spike Dup (9012529-MSD1)		**Source: P901024-08**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Mercury	0.340		0.10	mg/kg	0.397	ND	85.6	75-125	1.82	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Metals, Title 22 ICP-MS_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012507										
Blank (9012507-BLK1)				Prepared & Analyzed: 01/25/2019						
Antimony	ND		0.25	mg/kg						
Arsenic	ND		0.25	mg/kg						
Barium	ND		0.25	mg/kg						
Beryllium	ND		0.25	mg/kg						
Cadmium	ND		0.25	mg/kg						
Chromium	ND		0.25	mg/kg						
Cobalt	ND		0.25	mg/kg						
Copper	ND		0.25	mg/kg						
Lead	ND		0.25	mg/kg						
Mercury	ND		0.025	mg/kg						
Molybdenum	ND		0.25	mg/kg						
Nickel	ND		0.25	mg/kg						
Selenium	ND		1.2	mg/kg						
Silver	ND		0.25	mg/kg						
Thallium	ND		0.25	mg/kg						
Vanadium	ND		0.25	mg/kg						
Zinc	ND		0.25	mg/kg						
Duplicate (9012507-DUP1)		**Source: P901024-01**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Barium	83.5	QM-05	1.2	mg/kg		111			28.1	20
LCS (9012507-BS1)				Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	22.1		0.25	mg/kg	25.0		88.5	80-120		
Barium	21.6		0.25	mg/kg	25.0		86.5	80-120		
Cadmium	21.5		0.25	mg/kg	25.0		86.0	80-120		
Chromium	22.0		0.25	mg/kg	25.0		88.0	80-120		
Lead	22.2		0.25	mg/kg	25.0		89.0	80-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Metals, Title 22 ICP-MS_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012507 (Continued)										
Matrix Spike (9012507-MS1)		**Source: P901024-01**		Prepared & Analyzed: 01/25/2019						
Arsenic	34.4		0.25	mg/kg	24.5	3.99	124	75-125		
Arsenic	40.1	QM-05	0.25	mg/kg	23.1	3.41	158	75-125		
Barium	180	QM-05	0.25	mg/kg	24.5	111	283	75-125		
Barium	237	QM-05	0.25	mg/kg	23.1	151	370	75-125		
Cadmium	34.9	QM-05	0.25	mg/kg	23.1	0.560	148	75-125		
Cadmium	30.8		0.25	mg/kg	24.5	0.850	122	75-125		
Chromium	59.7	QM-05	0.25	mg/kg	23.1	17.7	182	75-125		
Chromium	52.7		0.25	mg/kg	24.5	24.7	114	75-125		
Lead	72.1	QM-05	0.25	mg/kg	23.1	18.1	234	75-125		
Lead	73.1	QM-PS	0.25	mg/kg	24.5	28.8	181	75-125		
Matrix Spike Dup (9012507-MSD1)		**Source: P901024-01**		Prepared & Analyzed: 01/25/2019						
Arsenic	33.9	QR-04	0.25	mg/kg	23.6	3.99	127	75-125	1.45	20
Barium	159	QM-05	0.25	mg/kg	23.6	111	203	75-125	12.7	20
Cadmium	31.2	QR-04	0.25	mg/kg	23.6	0.850	129	75-125	1.37	20
Chromium	49.3	QR-04	0.25	mg/kg	23.6	24.7	104	75-125	6.69	20
Lead	62.1	QM-PS	0.25	mg/kg	23.6	28.8	141	75-125	16.3	20
Post Spike (9012507-PS1)		**Source: P901024-01**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	25.6			ug/kg	25.0	3.99	86.2	80-120		
Barium	124	QM-05		ug/kg	25.0	111	53.4	80-120		
Cadmium	22.8			ug/kg	25.0	0.850	87.9	80-120		
Lead	50.0			ug/kg	25.0	28.8	84.8	80-120		
Batch: 9012509										
Blank (9012509-BLK1)				Prepared: 01/25/2019 Analyzed: 01/28/2019						
Antimony	ND		0.25	mg/kg						
Arsenic	ND		0.25	mg/kg						
Barium	ND		0.25	mg/kg						
Beryllium	ND		0.25	mg/kg						
Cadmium	ND		0.25	mg/kg						
Chromium	ND		0.25	mg/kg						
Cobalt	ND		0.25	mg/kg						
Copper	ND		0.25	mg/kg						
Lead	ND		0.25	mg/kg						
Mercury	ND		0.025	mg/kg						
Molybdenum	ND		0.25	mg/kg						
Nickel	ND		0.25	mg/kg						
Selenium	ND		1.2	mg/kg						
Silver	ND		0.25	mg/kg						
Thallium	ND		0.25	mg/kg						
Vanadium	ND		0.25	mg/kg						
Zinc	ND		0.25	mg/kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Metals, Title 22 ICP-MS_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012509 (Continued)										
Duplicate (9012509-DUP1)		**Source: P901024-23**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	7.05		1.2	mg/kg		7.06			0.184	20
Barium	51.6		1.2	mg/kg		46.5			10.5	20
Cadmium	0.605		1.2	mg/kg		0.514			16.3	20
Chromium	16.0		1.2	mg/kg		13.8			14.9	20
Lead	10.7		1.2	mg/kg		9.70			9.96	20
LCS (9012509-BS1)				Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	21.8		0.25	mg/kg	25.0		87.2	80-120		
Barium	22.1		0.25	mg/kg	25.0		88.5	80-120		
Cadmium	22.4		0.25	mg/kg	25.0		89.5	80-120		
Chromium	22.5		0.25	mg/kg	25.0		90.0	80-120		
Lead	22.6		0.25	mg/kg	25.0		90.6	80-120		
Matrix Spike (9012509-MS1)		**Source: P901024-23**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	37.0	QM-PS	0.25	mg/kg	22.9	7.06	130	75-125		
Arsenic	26.3		0.25	mg/kg	25.0	2.32	96.1	75-125		
Barium	97.5	QM-PS	0.25	mg/kg	22.9	46.5	223	75-125		
Barium	41.0		0.25	mg/kg	25.0	18.1	91.5	75-125		
Cadmium	23.1		0.25	mg/kg	25.0	0.0778	92.1	75-125		
Cadmium	27.2		0.25	mg/kg	22.9	0.514	116	75-125		
Chromium	42.8		0.25	mg/kg	25.0	19.0	95.2	75-125		
Chromium	49.7	QM-PS	0.25	mg/kg	22.9	13.8	157	75-125		
Lead	30.2		0.25	mg/kg	25.0	6.22	95.8	75-125		
Lead	44.3	QM-05	0.25	mg/kg	22.9	9.70	151	75-125		
Matrix Spike Dup (9012509-MSD1)		**Source: P901024-23**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	29.9	QM-PS	0.25	mg/kg	23.4	7.06	97.7	75-125	21.2	20
Barium	70.5	QM-PS	0.25	mg/kg	23.4	46.5	103	75-125	32.2	20
Cadmium	21.7	QR-04	0.25	mg/kg	23.4	0.514	90.8	75-125	22.4	20
Chromium	37.5	QM-PS	0.25	mg/kg	23.4	13.8	101	75-125	28.1	20
Lead	30.5	QM-05	0.25	mg/kg	23.4	9.70	89.0	75-125	37.0	20

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Metals, Title 22 ICP-MS_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012509 (Continued)										
Post Spike (9012509-PS1)		**Source: P901024-23**		Prepared: 01/25/2019 Analyzed: 01/28/2019						
Arsenic	28.3			ug/kg	25.0	7.06	84.9	80-120		
Barium	70.2			ug/kg	25.0	46.5	94.7	80-120		
Cadmium	21.5			ug/kg	25.0	0.514	84.0	80-120		
Chromium	36.1			ug/kg	25.0	13.8	89.3	80-120		
Lead	31.7			ug/kg	25.0	9.70	87.8	80-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

PAH-SIM_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210443										
LCS (QC1210443LCS1)		**Source: NA**		Prepared: 01/24/2019 Analyzed: 01/25/2019						
Benzo(b)fluoranthene	63		10	ug/Kg	50	NA	126	63-147	0	0
Phenanthrene	47		10	ug/Kg	50	NA	94	65-132	0	0
Indeno(1,2,3-cd)pyrene	59		10	ug/Kg	50	NA	118	58-144	0	0
Fluoranthene	54		10	ug/Kg	50	NA	108	68-139	0	0
Dibenz(a,h)anthracene	53		10	ug/Kg	50	NA	106	52-144	0	0
Chrysene	44		10	ug/Kg	50	NA	88	66-130	0	0
Pyrene	50		10	ug/Kg	50	NA	100	68-134	0	0
Benzo(g,h,i)perylene	53		10	ug/Kg	50	NA	106	54-135	0	0
Benzo(a)pyrene	64		10	ug/Kg	50	NA	128	36-168	0	0
Benz(a)anthracene	61		10	ug/Kg	50	NA	122	61-147	0	0
Anthracene	51		10	ug/Kg	50	NA	102	55-136	0	0
Acenaphthylene	51		10	ug/Kg	50	NA	102	52-130	0	0
Acenaphthene	47		10	ug/Kg	50	NA	94	58-130	0	0
2-Methylnaphthalene	53		10	ug/Kg	50	NA	106	59-130	0	0
1-Methylnaphthalene	48		10	ug/Kg	50	NA	96	38-130	0	0
Benzo(k)fluoranthene	57		10	ug/Kg	50	NA	114	64-142	0	0
Fluorene	49		10	ug/Kg	50	NA	98	63-130	0	0
Naphthalene	46		10	ug/Kg	50	NA	92	50-130	0	0
Surrogate: Nitrobenzene-d5 (SUR)	42.201			ug/Kg	50	NA	84	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	45.65			ug/Kg	50	NA	91	30-120		
Surrogate: p-Terphenyl (SUR)	48.34			ug/Kg	50	NA	97	33-155		
Method Blank (QC1210443MB1)		**Source: NA**		Prepared & Analyzed: 01/24/2019						
Pyrene	ND		10	ug/Kg		NA		-		
1-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		10	ug/Kg		NA		-		
Phenanthrene	ND		10	ug/Kg		NA		-		
Naphthalene	ND		10	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		10	ug/Kg		NA		-		
Fluorene	ND		10	ug/Kg		NA		-		
Fluoranthene	ND		10	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		10	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		10	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		10	ug/Kg		NA		-		
Benzo(a)pyrene	ND		10	ug/Kg		NA		-		
Benz(a)anthracene	ND		10	ug/Kg		NA		-		
Anthracene	ND		10	ug/Kg		NA		-		
Acenaphthylene	ND		10	ug/Kg		NA		-		
Acenaphthene	ND		10	ug/Kg		NA		-		
2-Methylnaphthalene	ND		10	ug/Kg		NA		-		
Chrysene	ND		10	ug/Kg		NA		-		
Surrogate: p-Terphenyl (SUR)	33.192			ug/Kg	50	NA	66	33-155		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

PAH-SIM_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210443 (Continued)										
Method Blank (QC1210443MB1)		**Source: NA**			Prepared & Analyzed: 01/24/2019					
Surrogate: Nitrobenzene-d5 (SUR)	31.426			ug/Kg	50	NA	63	27-125		
Surrogate: 2-Fluorobiphenyl (SUR)	30.52			ug/Kg	50	NA	61	30-120		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

PCBs_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: 9012519										
Blank (9012519-BLK1)				Prepared: 01/25/2019 Analyzed: 01/28/2019						
PCB-1016	ND		10	ug/kg						
PCB-1221	ND		10	ug/kg						
PCB-1232	ND		10	ug/kg						
PCB-1242	ND		10	ug/kg						
PCB-1248	ND		10	ug/kg						
PCB-1254	ND		10	ug/kg						
PCB-1260	ND		10	ug/kg						
Surrogate: Tetrachloro-meta-xylene	12.3			ug/kg	9.90		124	35-140		
Surrogate: Decachlorobiphenyl	13.5			ug/kg	9.90		136	35-140		
LCS (9012519-BS1)				Prepared: 01/25/2019 Analyzed: 01/28/2019						
PCB-1016	84.7		10	ug/kg	99.0		85.6	40-130		
PCB-1260	92.4		10	ug/kg	99.0		93.3	40-130		
Surrogate: Tetrachloro-meta-xylene	12.4			ug/kg	9.90		125	35-140		
Surrogate: Decachlorobiphenyl	13.1			ug/kg	9.90		132	35-140		
LCS Dup (9012519-BSD1)				Prepared: 01/25/2019 Analyzed: 01/28/2019						
PCB-1016	88.7		10	ug/kg	99.0		89.6	40-130	4.64	30
PCB-1260	95.3		10	ug/kg	99.0		96.2	40-130	3.11	30
Surrogate: Tetrachloro-meta-xylene	12.8			ug/kg	9.90		129	35-140		
Surrogate: Decachlorobiphenyl	13.3			ug/kg	9.90		135	35-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210442										
LCS (QC1210442LCS1)		**Source: NA**		Prepared: 01/24/2018 Analyzed: 01/25/2019						
Pyrene	1600		250	ug/Kg	2000	NA	80	63-119	0	0
2,4,5-Trichlorophenol	1400		250	ug/Kg	2000	NA	70	57-125	0	0
3 and 4-Methylphenol (m and p-Cresol)	1600		400	ug/Kg	2000	NA	80	56-124	0	0
Phenol	1500		250	ug/Kg	2000	NA	75	51-111	0	0
Pentachlorophenol	1200		1200	ug/Kg	2000	NA	60	41-103	0	0
Benzo(b)fluoranthene	1400		250	ug/Kg	2000	NA	70	61-125	0	0
Acenaphthene	1400		250	ug/Kg	2000	NA	70	53-112	0	0
1,2,4-Trichlorobenzene	1300		250	ug/Kg	2000	NA	65	43-111	0	0
4-Chloro-3-methylphenol	1400		250	ug/Kg	2000	NA	70	61-122	0	0
1,4-Dichlorobenzene	1300		250	ug/Kg	2000	NA	65	30-116	0	0
2-Chlorophenol	1400		250	ug/Kg	2000	NA	70	48-114	0	0
2,4-Dinitrotoluene	1400		250	ug/Kg	2000	NA	70	57-124	0	0
2,4-Dimethylphenol	1300		250	ug/Kg	2000	NA	65	50-112	0	0
Chrysene	1600		250	ug/Kg	2000	NA	80	59-117	0	0
4-Nitrophenol	1300		250	ug/Kg	2000	NA	65	54-126	0	0
N-Nitrosodi-n-propylamine (NDPA)	1500		250	ug/Kg	2000	NA	75	54-110	0	0
Surrogate: Phenol-d5 (SUR)	1454.582			ug/Kg	2000	NA	73	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1338.4			ug/Kg	2000	NA	67	27-125		
Surrogate: 2-Fluorophenol (SUR)	1234.378			ug/Kg	2000	NA	62	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1484.722			ug/Kg	2000	NA	74	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	1351.88			ug/Kg	2000	NA	68	34-143		
Surrogate: p-Terphenyl (SUR)	1626.328			ug/Kg	2000	NA	81	33-155		
Method Blank (QC1210442MB1)		**Source: NA**		Prepared: 01/24/2018 Analyzed: 01/24/2019						
1,2,4-Trichlorobenzene	ND		250	ug/Kg		NA		-		
1,2-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,3-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1,4-Dichlorobenzene	ND		250	ug/Kg		NA		-		
1-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2,4,6-Trichlorophenol	ND		250	ug/Kg		NA		-		
Azobenzene	ND		250	ug/Kg		NA		-		
Benz(a)anthracene	ND		250	ug/Kg		NA		-		
2,4-Dinitrotoluene	ND		250	ug/Kg		NA		-		
2,6-Dinitrotoluene	ND		250	ug/Kg		NA		-		
Benzo(b)fluoranthene	ND		250	ug/Kg		NA		-		
2-Chloronaphthalene	ND		250	ug/Kg		NA		-		
2,4,5-Trichlorophenol	ND		250	ug/Kg		NA		-		
Acenaphthylene	ND		250	ug/Kg		NA		-		
2-Methyl-4,6-dinitrophenol	ND		250	ug/Kg		NA		-		
2-Methylnaphthalene	ND		250	ug/Kg		NA		-		
2-Methylphenol (o-Cresol)	ND		250	ug/Kg		NA		-		
2-Nitroaniline	ND		250	ug/Kg		NA		-		
2-Nitrophenol	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210442 (Continued)										
Method Blank (QC1210442MB1)		**Source: NA**			Prepared: 01/24/2018 Analyzed: 01/24/2019					
3 and 4-Methylphenol (m and p-Cresol)	ND		400	ug/Kg		NA		-		
Benzo(a)pyrene	ND		250	ug/Kg		NA		-		
2-Chlorophenol	ND		250	ug/Kg		NA		-		
4-Chloro-3-methylphenol	ND		250	ug/Kg		NA		-		
Benzidine	ND		1200	ug/Kg		NA		-		
2,4-Dichlorophenol	ND		250	ug/Kg		NA		-		
2,4-Dimethylphenol	ND		250	ug/Kg		NA		-		
2,4-Dinitrophenol	ND		1200	ug/Kg		NA		-		
3,3'-Dichlorobenzidine	ND		1200	ug/Kg		NA		-		
3-Nitroaniline	ND		250	ug/Kg		NA		-		
Anthracene	ND		250	ug/Kg		NA		-		
Aniline	ND		250	ug/Kg		NA		-		
4-Chloroaniline	ND		250	ug/Kg		NA		-		
4-Chlorophenyl phenyl ether	ND		250	ug/Kg		NA		-		
4-Nitroaniline	ND		250	ug/Kg		NA		-		
4-Nitrophenol	ND		250	ug/Kg		NA		-		
Acenaphthene	ND		250	ug/Kg		NA		-		
4-Bromophenyl phenyl ether	ND		250	ug/Kg		NA		-		
Butylbenzyl Phthalate	ND		250	ug/Kg		NA		-		
Benzo(g,h,i)perylene	ND		250	ug/Kg		NA		-		
Benzo(k)fluoranthene	ND		250	ug/Kg		NA		-		
Benzoic acid	ND		1200	ug/Kg		NA		-		
Benzyl alcohol	ND		250	ug/Kg		NA		-		
Bis(2-chloroethoxy)methane	ND		250	ug/Kg		NA		-		
Bis(2-chloroethyl) Ether	ND		1200	ug/Kg		NA		-		
Di-n-octyl phthalate	ND		250	ug/Kg		NA		-		
Bis(2-ethylhexyl) phthalate	ND		250	ug/Kg		NA		-		
Carbazole	ND		250	ug/Kg		NA		-		
Chrysene	ND		250	ug/Kg		NA		-		
Dibenz(a,h)anthracene	ND		250	ug/Kg		NA		-		
Dibenzofuran	ND		250	ug/Kg		NA		-		
Diethyl phthalate	ND		250	ug/Kg		NA		-		
Dimethyl phthalate	ND		250	ug/Kg		NA		-		
Di-n-butyl phthalate	ND		250	ug/Kg		NA		-		
Bis(2-chloroisopropyl) Ether	ND		250	ug/Kg		NA		-		
Pyrene	ND		250	ug/Kg		NA		-		
Pyridine	ND		250	ug/Kg		NA		-		
Total Cresol	ND		400	ug/Kg		NA		-		
Fluoranthene	ND		250	ug/Kg		NA		-		
Naphthalene	ND		250	ug/Kg		NA		-		
Phenol	ND		250	ug/Kg		NA		-		
Hexachlorobenzene	ND		250	ug/Kg		NA		-		
Hexachlorocyclopentadiene	ND		1200	ug/Kg		NA		-		
Hexachloroethane	ND		250	ug/Kg		NA		-		
Isophorone	ND		250	ug/Kg		NA		-		
Hexachlorobutadiene	ND		250	ug/Kg		NA		-		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210442 (Continued)										
Method Blank (QC1210442MB1)		**Source: NA**			Prepared: 01/24/2018 Analyzed: 01/24/2019					
Nitrobenzene	ND		1200	ug/Kg		NA		-		
N-Nitrosodimethylamine (NDMA)	ND		250	ug/Kg		NA		-		
Fluorene	ND		250	ug/Kg		NA		-		
N-Nitrosodi-n-propylamine (NDPA)	ND		250	ug/Kg		NA		-		
N-Nitrosodiphenylamine	ND		250	ug/Kg		NA		-		
Pentachlorophenol	ND		1200	ug/Kg		NA		-		
Phenanthrene	ND		250	ug/Kg		NA		-		
Indeno(1,2,3-cd)pyrene	ND		250	ug/Kg		NA		-		
Surrogate: 2-Fluorophenol (SUR)	1162.558			ug/Kg	2000	NA	58	13-153		
Surrogate: 2-Fluorobiphenyl (SUR)	1354.192			ug/Kg	2000	NA	68	41-125		
Surrogate: 2,4,6-Tribromophenol (SUR)	860.908			ug/Kg	2000	NA	43	34-143		
Surrogate: p-Terphenyl (SUR)	1494.516			ug/Kg	2000	NA	75	33-155		
Surrogate: Phenol-d5 (SUR)	1314.888			ug/Kg	2000	NA	66	10-110		
Surrogate: Nitrobenzene-d5 (SUR)	1164.808			ug/Kg	2000	NA	58	27-125		
MS (QC1210442MS1)		**Source: NA**			Prepared: 01/24/2018 Analyzed: 01/25/2019					
Chrysene	1900		250	ug/Kg	2000	ND	95	68-120	0	0
N-Nitrosodi-n-propylamine (NDPA)	1700		250	ug/Kg	2000	ND	85	41-127	0	0
Pentachlorophenol	1300		1200	ug/Kg	2000	ND	65	43-120	0	0
Phenol	1700		250	ug/Kg	2000	ND	85	46-116	0	0
Pyrene	1900		250	ug/Kg	2000	ND	95	53-129	0	0
Benzo(b)fluoranthene	1800		250	ug/Kg	2000	ND	90	59-126	0	0
Acenaphthene	1600		250	ug/Kg	2000	ND	80	57-99	0	0
2,4-Dimethylphenol	1300		250	ug/Kg	2000	ND	65	37-105	0	0
1,2,4-Trichlorobenzene	1400		250	ug/Kg	2000	ND	70	35-93	0	0
1,4-Dichlorobenzene	1300		250	ug/Kg	2000	ND	65	39-95	0	0
3 and 4-Methylphenol (m and p-Cresol)	1700		400	ug/Kg	2000	ND	85	33-116	0	0
2,4-Dinitrotoluene	1700		250	ug/Kg	2000	ND	85	48-109	0	0
2-Chlorophenol	1500		250	ug/Kg	2000	ND	75	42-102	0	0
4-Chloro-3-methylphenol	1700		250	ug/Kg	2000	ND	85	33-120	0	0
2,4,5-Trichlorophenol	1700		250	ug/Kg	2000	ND	85	44-108	0	0
4-Nitrophenol	1500		250	ug/Kg	2000	ND	75	37-107	0	0
Surrogate: Nitrobenzene-d5 (SUR)	1538.52			ug/Kg	2000	NA	77	27-125		
Surrogate: Phenol-d5 (SUR)	1706.166			ug/Kg	2000	NA	85	10-110		
Surrogate: p-Terphenyl (SUR)	1988.533			ug/Kg	2000	NA	99	33-155		
Surrogate: 2,4,6-Tribromophenol (SUR)	1642.363			ug/Kg	2000	NA	82	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1693.13			ug/Kg	2000	NA	85	41-125		
Surrogate: 2-Fluorophenol (SUR)	1388.664			ug/Kg	2000	NA	69	13-153		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Semi-Volatile Organic Compounds_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: QC1210442 (Continued)										
MSD (QC1210442MSD1)		**Source: NA**			Prepared: 01/24/2018 Analyzed: 01/25/2019					
4-Nitrophenol	1400		250	ug/Kg	2000	ND	70	37-107	6.9	30
Acenaphthene	1400		250	ug/Kg	2000	ND	70	57-99	13.3	30
Benzo(b)fluoranthene	1500		250	ug/Kg	2000	ND	75	59-126	18.2	30
Chrysene	1500		250	ug/Kg	2000	ND	75	68-120	23.5	30
N-Nitrosodi-n-propylamine (NDPA)	1500		250	ug/Kg	2000	ND	75	41-127	12.5	30
3 and 4-Methylphenol (m and p-Cresol)	1500		400	ug/Kg	2000	ND	75	33-116	12.5	30
Pyrene	1600		250	ug/Kg	2000	ND	80	53-129	17.1	30
Phenol	1400		250	ug/Kg	2000	ND	70	46-116	19.4	30
1,2,4-Trichlorobenzene	1200		250	ug/Kg	2000	ND	60	35-93	15.4	30
4-Chloro-3-methylphenol	1500		250	ug/Kg	2000	ND	75	33-120	12.5	30
1,4-Dichlorobenzene	1100		250	ug/Kg	2000	ND	55	39-95	16.7	30
2,4,5-Trichlorophenol	1500		250	ug/Kg	2000	ND	75	44-108	12.5	30
2,4-Dimethylphenol	1100		250	ug/Kg	2000	ND	55	37-105	16.7	30
2,4-Dinitrotoluene	1500		250	ug/Kg	2000	ND	75	48-109	12.5	30
2-Chlorophenol	1300		250	ug/Kg	2000	ND	65	42-102	14.3	30
Pentachlorophenol	1200		1200	ug/Kg	2000	ND	60	43-120	8	30
Surrogate: p-Terphenyl (SUR)	1633.71			ug/Kg	2000	NA	82	33-155		
Surrogate: Phenol-d5 (SUR)	1504.895			ug/Kg	2000	NA	75	10-110		
Surrogate: 2-Fluorophenol (SUR)	1205.791			ug/Kg	2000	NA	60	13-153		
Surrogate: 2,4,6-Tribromophenol (SUR)	1506.203			ug/Kg	2000	NA	75	34-143		
Surrogate: 2-Fluorobiphenyl (SUR)	1467.621			ug/Kg	2000	NA	73	41-125		
Surrogate: Nitrobenzene-d5 (SUR)	1347.655			ug/Kg	2000	NA	67	27-125		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0023										
Blank (B9A0023-BLK1)				Prepared & Analyzed: 01/23/2019						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		50	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		5.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		5.0	µg/Kg						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0023 (Continued)										
Blank (B9A0023-BLK1)				Prepared & Analyzed: 01/23/2019						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		5.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		5.0	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		20	µg/Kg						
Methyl Methacrylate	ND		5.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Tetrahydrofuran	ND		20	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	52			µg/Kg	50.0		104	60-140		
Surrogate: 4-Bromofluorobenzene	47			µg/Kg	50.0		94.1	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		102	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		97.8	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0023 (Continued)										
LCS (B9A0023-BS1)				Prepared & Analyzed: 01/23/2019						
Benzene	40		1.0	µg/Kg	40.0		101	70-130		
Bromobenzene	41		1.0	µg/Kg	40.0		103	70-130		
Bromodichloromethane	43		1.0	µg/Kg	40.0		108	70-130		
Bromoform	42		1.0	µg/Kg	40.0		104	70-130		
Chlorobenzene	40		1.0	µg/Kg	40.0		101	70-130		
Chloroethane	37		5.0	µg/Kg	40.0		93.7	70-130		
Chloroform	40		1.0	µg/Kg	40.0		101	70-130		
4-Chlorotoluene	41		1.0	µg/Kg	40.0		102	70-130		
Dibromomethane	42		1.0	µg/Kg	40.0		106	70-130		
1,2-Dichlorobenzene	41		1.0	µg/Kg	40.0		101	70-130		
1,1-Dichloroethene	42		1.0	µg/Kg	40.0		105	70-130		
1,2-Dichloropropane	41		1.0	µg/Kg	40.0		104	70-130		
2,2-Dichloropropane	42		1.0	µg/Kg	40.0		105	70-130		
1,1-Dichloropropene	40		1.0	µg/Kg	40.0		100	70-130		
Diethyl Ether	39		5.0	µg/Kg	40.0		96.8	70-130		
Diisopropyl Ether (DIPE)	40		1.0	µg/Kg	40.0		99.1	70-130		
Ethylbenzene	41		1.0	µg/Kg	40.0		103	70-130		
Hexachloro-1,3-Butadiene	39		1.0	µg/Kg	40.0		98.0	70-130		
Methylene Chloride	43		20	µg/Kg	40.0		108	70-130		
Methyl-t-Butyl Ether (MTBE)	40		1.0	µg/Kg	40.0		99.0	70-130		
Naphthalene	39		10	µg/Kg	40.0		97.4	70-130		
Styrene	43		1.0	µg/Kg	40.0		108	70-130		
tert-Butylbenzene	42		1.0	µg/Kg	40.0		104	70-130		
Tetrachloroethene	40		1.0	µg/Kg	40.0		100	70-130		
Toluene	40		1.0	µg/Kg	40.0		101	70-130		
1,2,3-Trichlorobenzene	41		1.0	µg/Kg	40.0		101	70-130		
Trichloroethene	40		1.0	µg/Kg	40.0		99.2	70-130		
1,3,5-Trimethylbenzene	44		1.0	µg/Kg	40.0		109	70-130		
Vinyl Chloride	36		1.0	µg/Kg	40.0		89.1	70-130		
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		103	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	48			µg/Kg	50.0		95.4	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		98.9	60-140		

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Quality Control
(Continued)

Volatile Organic Compounds by EPA 5035 (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9A0023 (Continued)										
LCS Dup (B9A0023-BSD1)				Prepared & Analyzed: 01/23/2019						
Benzene	40		1.0	µg/Kg	40.0		99.6	70-130	1.62	20
Bromobenzene	41		1.0	µg/Kg	40.0		102	70-130	1.14	20
Bromodichloromethane	43		1.0	µg/Kg	40.0		106	70-130	1.42	20
Bromoform	41		1.0	µg/Kg	40.0		102	70-130	2.04	20
Chlorobenzene	40		1.0	µg/Kg	40.0		99.3	70-130	1.67	20
Chloroethane	35		5.0	µg/Kg	40.0		86.7	70-130	7.73	20
Chloroform	40		1.0	µg/Kg	40.0		100	70-130	0.124	20
4-Chlorotoluene	40		1.0	µg/Kg	40.0		99.6	70-130	2.43	20
Dibromomethane	43		1.0	µg/Kg	40.0		107	70-130	0.942	20
1,2-Dichlorobenzene	39		1.0	µg/Kg	40.0		97.5	70-130	3.95	20
1,1-Dichloroethene	34		1.0	µg/Kg	40.0		83.9	70-130	22.3	20
1,2-Dichloropropane	41		1.0	µg/Kg	40.0		103	70-130	0.290	20
2,2-Dichloropropane	41		1.0	µg/Kg	40.0		102	70-130	2.80	20
1,1-Dichloropropene	39		1.0	µg/Kg	40.0		97.7	70-130	2.83	20
Diethyl Ether	35		5.0	µg/Kg	40.0		88.7	70-130	8.73	20
Diisopropyl Ether (DIPE)	40		1.0	µg/Kg	40.0		99.7	70-130	0.579	20
Ethylbenzene	40		1.0	µg/Kg	40.0		99.7	70-130	2.96	20
Hexachloro-1,3-Butadiene	37		1.0	µg/Kg	40.0		92.4	70-130	5.88	20
Methylene Chloride	43		20	µg/Kg	40.0		108	70-130	0.0463	20
Methyl-t-Butyl Ether (MTBE)	40		1.0	µg/Kg	40.0		101	70-130	1.73	20
Naphthalene	39		10	µg/Kg	40.0		97.8	70-130	0.435	20
Styrene	42		1.0	µg/Kg	40.0		105	70-130	2.87	20
tert-Butylbenzene	40		1.0	µg/Kg	40.0		101	70-130	3.56	20
Tetrachloroethene	39		1.0	µg/Kg	40.0		97.0	70-130	3.37	20
Toluene	39		1.0	µg/Kg	40.0		98.2	70-130	2.99	20
1,2,3-Trichlorobenzene	40		1.0	µg/Kg	40.0		99.2	70-130	2.14	20
Trichloroethene	39		1.0	µg/Kg	40.0		97.0	70-130	2.29	20
1,3,5-Trimethylbenzene	42		1.0	µg/Kg	40.0		106	70-130	3.04	20
Vinyl Chloride	34		1.0	µg/Kg	40.0		84.6	70-130	5.09	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	48			µg/Kg	50.0		95.9	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		98.5	60-140		

Performance Analytical Laboratories, Inc.

ELAP 2960

Langan	Project: DTSC Riverside
32 Executive Park, Suite 130	Project Number: DTSC Riverside
Irvine, CA 92614-4721	Project Manager: Brad McCardell

Notes and Definitions

Item	Definition
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
QM-PS	The percent recovery and/or RPD are outside acceptance criteria. Results accepted based upon percent recovery results in the post spike and/or serial dilution.
QR-04	The pecent recovery and/or RPD was outside acceptance criteria. Results accepted based upon percent recovery results in duplicate QC sample and the CCV and CCB results.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 3

PAL WO#: P901024

Client Name	Langan
Address	515 S. Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo / Laura Hrabar / Trey Penna

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: TPH 8015M	CrVI 7199	Total Metals 6020	VOCs 8260B	SVOCs, PAHs 8270C	PCBs 8082
1	OS-8-0.5'	1/21/19	0746	S	1 J		X	X			
2	OS-8-1'		0748		2 J / VOAs	X			X	X	X
3	OS-8-2'		0752		1 J		X	X			
4	OS-8-5'		0804		2 J / VOAs	X	X	X	X	X	X
5	OS-8-10'		0810		2 J / VOAs	X	X	X	X	X	
6	OSG-4-0.5'		1054		1 J		X	X			
7	OSG-4-1'		1036		1 J		X	X			
8	VP-3-0.5'		1049		1 J		X	X			
9	VP-3-2'		1051		1 J		X	X			
10	VP-3-5'		1054		1 J		X	X			

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH: 24 | 48 | 72

EDD Required - Circle one: (Yes) No

Type of EDD: EZEDD

Reciept Temp./ Initials: (Temp recorded is not corrected) 3.2 °C MW

RELINQUISHED BY
Signature: Brad A McCardell
Print: Brad A. McCardell
Company: Langan
DATE: 1/22/19
TIME: 11:00 Am

RECEIVED BY
Signature: MValenzuela
Print: MValenzuela
Company: PAL
DATE: 1/22/19
TIME: 1210

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-4690

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901024

Client Name	Langan
Address	515 S Flower St, Suite 2860, Los Angeles, CA 90071
Project Manager	Neil Shukla/Brad McCardell
Email	nshukla@langan.com
Phone	714-616-0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo/Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020
1	OSG-3-0.5'	1/21/19	0950	S	1 J	X	X
2	OSG-3-1'		0952			X	X
3	OSG-2-0.5'		1133			X	X
4	OSG-2-1'		1134			X	X
5	VP-4-0.5'		1142			X	X
6	VP-4-2'		1144			X	X
7	VP-4-5'		1147	↓		X	X
8	CL-1		1342	P		X	X
9	CL-2		1350	P		X	X
10	OSG-1-0.5'	↓	1450	S	↓	X	X

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: (Yes) No

Type of EDD: EZEDD

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: [signature]
Print: Brad A. McCardell
Company: Langan
DATE: 1/22/19
TIME: 11:00 AM

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 1/22/19
TIME: 1210

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-4691

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: 901024

Client Name	Langan
Address	515 S. Flower St. Suite 2260, Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: Cr VI 7199	Total Metals 6020
1	OSG-1-1'	1/21/19	1452	S	1J	X	X
2	VP-1-0.5'	↓	1431	↓	1J	X	X
3	VP-1-2'	↓	1433	↓	↓	X	X
4	VP-1-5'	↓	1435	↓	↓	X	X
5	VP-2-0.5'	↓	1525	↓	↓	X	X
6	VP-2-2'	↓	1531	↓	↓	X	X
7	VP-2-5'	↓	1533	↓	↓	X	X
8							
9							
10							

G-4692

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one:	(Yes) No
Type of EDD:	EZEDD
Reciept Temp./ Initials: (Temp recorded is not corrected)	

RELINQUISHED BY

Signature:	Brad A. McCardell
Print:	Brad A. McCardell
Company:	Langan
DATE:	1/22/19
TIME:	11:00 AM

RECEIVED BY

Signature:	W Valenzuela
Print:	W Valenzuela
Company:	PAL
DATE:	1/22/19
TIME:	1210

RELINQUISHED BY

Signature:	
Print:	
Company:	
DATE:	
TIME:	

RECEIVED BY

Signature:	
Print:	
Company:	
DATE:	
TIME:	

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: PQ01024

Cooler 1 OF 1

Client Langan

Date Received: 1/22/19

Courier (X) CLIENT ( ) PALI ( ) OTHER _____ ( ) FEDEX ( ) UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	( ) Blank ( ) Sample	3.2	0.0	3.2	TM-12

(X) WET ICE ( ) BLUE ICE ( ) AMBIENT ( ) OTHER _____

( ) Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ( ) Present and Intact ( ) Present and **NOT** Intact ( ) Seals signed and dated ( ) Not Present

Sample Seal ( ) Present and Intact ( ) Present and **NOT** Intact ( ) Seals signed and dated ( ) Not Present

CLIENT COC

(X) INCLUDED ( ) NOT INCLUDED

(X) Complete ( ) Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

(X) SOLID ( ) LIQUID ( ) AIR ( ) OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Sample OS-8-10' 4oz jars (2) had water from ice seep into them client has canceled everything but VOC on that sample.

Initials	Date	Initials	Date
MV	1/22/19	MV	1/23/19

Performance Analytical Laboratories, Inc.

SUBCONTRACT CHAIN OF CUSTODY

T190161

Work Order ID: P901024

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Sun Star Laboratories, Inc.
25712 Commercentre Drive
Lake Forest, CA 92630
Phone :(949) 297-5020
Fax: .

Analysis	Due	Comments
01 Sample ID: OS-8-0.5' **Matrix:Solid** **Sampled: 01/21/2019 07:46**		
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
2 Sample ID: OS-8-1' **Matrix:Solid** **Sampled: 01/21/2019 07:48**		
S_PCB 8082	01/29/2019 15:00	
Containers Supplied:		
Smart Kit Sodium Bisulfat Glass Jar, 4 oz (F)		
3 Sample ID: OS-8-2' **Matrix:Solid** **Sampled: 01/21/2019 07:52**		
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
1 Sample ID: OS-8-5' **Matrix:Solid** **Sampled: 01/21/2019 08:04**		
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
S_PCB 8082	01/29/2019 15:00	
Containers Supplied:		
Smart Kit Sodium Bisulfat Glass Jar, 4 oz (F)		

3.5

Released By	Date	Time	Received By	Date	Time
[signature]	1/22/19	1531	[signature]	01/22/19	15:31
[signature]	01/22/19	16:58	[signature]	1-22-19	16:58

G-4694

Performance Analytical Laboratories, Inc.

T190161

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901024

Analysis		Due	Comments
5 **Sample ID: OS-8-10'**	**Matrix:Solid**	**Sampled: 01/21/2019 08:18**	
S_Mercury 7471	MW	01/29/2019 15:00	
S_Metals Title 22 6020	~~OA Hold~~ MW	01/29/2019 15:00	CANCeLed.
S_PCB 8082		01/29/2019 15:00	Samples were compromized
Containers Supplied:			
Smart Kit Sodium Bisulfat Glass Jar, 4 oz (F)			
~~15~~ **Sample ID: OSG-4-0.5'**	**Matrix:Solid**	**Sampled: 01/21/2019 10:34**	
16 S_Hexavalent Chromium 7199		01/29/2019 15:00	
S_Mercury 7471		01/29/2019 15:00	
S_Metals Title 22 6020		01/29/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
~~16~~ **Sample ID: OSG-4-1'**	**Matrix:Solid**	**Sampled: 01/21/2019 10:36**	
17 S_Hexavalent Chromium 7199		01/29/2019 15:00	
S_Mercury 7471		01/29/2019 15:00	
S_Metals Title 22 6020		01/29/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
~~17~~ **Sample ID: VP-3-0.5'**	**Matrix:Solid**	**Sampled: 01/21/2019 10:49**	
18 S_Hexavalent Chromium 7199		01/29/2019 15:00	
S_Mercury 7471		01/29/2019 15:00	
S_Metals Title 22 6020		01/29/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
~~18~~ **Sample ID: VP-3-2'**	**Matrix:Solid**	**Sampled: 01/21/2019 10:51**	
19 S_Hexavalent Chromium 7199		01/29/2019 15:00	
S_Mercury 7471		01/29/2019 15:00	
S_Metals Title 22 6020		01/29/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			

3.5

Released By	Date	Time	Received By	Date	Time
MWalsh	10/22/19	1531	Ali Huerta	01/22/19	15:31
Ali Huerta	01/22/19	16:50		1-22-19	16:58

Performance Analytical Laboratories, Inc.

T190161

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901024

Analysis		Due	Comments
9 **Sample ID: VP-3-5'**	**Matrix:Solid**	**Sampled: 01/21/2019 10:54**	
10 S_Hexavalent Chromium 7199		01/29/2019 15:00	
S_Mercury 7471		01/29/2019 15:00	
S_Metals Title 22 6020		01/29/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
2 **Sample ID: OSG-3-0.5'**	**Matrix:Solid**	**Sampled: 01/21/2019 09:50**	
S_Hexavalent Chromium 7199		01/29/2019 15:00	
S_Mercury 7471		01/29/2019 15:00	
S_Metals Title 22 6020		01/29/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
4 **Sample ID: OSG-3-1'**	**Matrix:Solid**	**Sampled: 01/21/2019 09:52**	
12 S_Hexavalent Chromium 7199		01/29/2019 15:00	
S_Mercury 7471		01/29/2019 15:00	
S_Metals Title 22 6020		01/29/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
12 **Sample ID: OSG-2-0.5'**	**Matrix:Solid**	**Sampled: 01/21/2019 11:33**	
13 S_Hexavalent Chromium 7199		01/29/2019 15:00	
S_Mercury 7471		01/29/2019 15:00	
S_Metals Title 22 6020		01/29/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			
13 **Sample ID: OSG-2-1'**	**Matrix:Solid**	**Sampled: 01/21/2019 11:34**	
14 S_Hexavalent Chromium 7199		01/29/2019 15:00	
S_Mercury 7471		01/29/2019 15:00	
S_Metals Title 22 6020		01/29/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (A)			

3.5

Released By	Date	Time	Received By	Date	Time
[signature]	1/22/19	1531	[signature]	01/22/19	15:31
[signature]	01/22/19	16:58	[signature]	1-22-19	16:58

Performance Analytical Laboratories, Inc.

T/90161

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901024

Analysis	Due	Comments
Sample ID: VP-4-0.5' **Matrix:Solid**	**Sampled: 01/21/2019 11:42**	
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: VP-4-2' **Matrix:Solid**	**Sampled: 01/21/2019 11:44**	
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: VP-4-5' **Matrix:Solid**	**Sampled: 01/21/2019 11:47**	
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CL-1 **Matrix:Solid**	**Sampled: 01/21/2019 13:42**	
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: CL-2 **Matrix:Solid**	**Sampled: 01/21/2019 13:50**	
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

3.5

Released By	Date	Time	Received By	Date	Time
M Wolfe	1/22/19	1531	Jill Huerta	01/22/19	15:31
Jill Huerta	01/22/19	16:50		1.22.19	16:58

Performance Analytical Laboratories, Inc.

T190161

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901024

Analysis	Due	Comments
Sample ID: OSG-1-0.5' **Matrix:Solid** **Sampled: 01/21/2019 14:50**		
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: OSG-1-1' **Matrix:Solid** **Sampled: 01/21/2019 14:52**		
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: VP-1-0.5' **Matrix:Solid** **Sampled: 01/21/2019 14:31**		
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: VP-1-2' **Matrix:Solid** **Sampled: 01/21/2019 14:33**		
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: VP-1-5' **Matrix:Solid** **Sampled: 01/21/2019 14:35**		
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

Released By	Date	Time	Received By	Date	Time
[signature]	1/22/19	1531	[signature]	01/22/19	15:31
[signature]	01/22/19	10:58	[signature]	1.22.19	16:58

Performance Analytical Laboratories, Inc.

T190161

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901024

Analysis	Due	Comments
Sample ID: VP-2-0.5' **Matrix:Solid**	**Sampled: 01/21/2019 15:25**	
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: VP-2-2' **Matrix:Solid**	**Sampled: 01/21/2019 15:31**	
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		
Sample ID: VP-2-5' **Matrix:Solid**	**Sampled: 01/21/2019 15:33**	
S_Hexavalent Chromium 7199	01/29/2019 15:00	
S_Mercury 7471	01/29/2019 15:00	
S_Metals Title 22 6020	01/29/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (A)		

3.5

Released By	Date	Time	Received By	Date	Time
M Valenzuela	1/22/19	1531	Ali Mehta	01/22/19	15:31
Ali Mehta	01/22/19	16:58		1.22.19	16:58

SunStar Laboratories — Celebrating 20 Years!

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T190161

Client Name: Performance Ana. Project: DTSC Riverside

Delivered by: ☐ Client ☒ SunStar Courier ☐ GSO ☐ FedEx ☐ Other

If Courier, Received by: Alexandra Date/Time Courier Received: 1.22.19 / 15:31

Lab Received by: Sunny Date/Time Lab Received: 1.22.19 / 16:58

Total number of coolers received: 0

Temperature:	Cooler #1 2.3	°C +/- the CF (1.2°C) = 3.5	°C corrected temperature
Temperature:	Cooler #2	°C +/- the CF (1.2°C) =	°C corrected temperature
Temperature:	Cooler #3	°C +/- the CF (1.2°C) =	°C corrected temperature

Temperature criteria = ≤ 6°C (no frozen containers) Within criteria? ☒ **Yes** ☐ **No**

If NO:

Samples received on ice? ☐ Yes ☐ **No → Complete Non-Conformance Sheet**

If on ice, samples received same day collected? ☐ Yes → Acceptable ☐ **No → Complete Non-Conformance Sheet**

Custody seals intact on cooler/sample	☐ Yes	☐ No*	☒ N/A
Sample containers intact	☒ Yes	☐ No*	
Sample labels match Chain of Custody IDs	☒ Yes	☐ No*	
Total number of containers received match COC	☒ Yes	☐ No*	
Proper containers received for analyses requested on COC	☒ Yes	☐ No*	
Proper preservative indicated on COC/containers for analyses requested	☐ Yes	☐ No*	☒ N/A
Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times	☒ **Yes**	☐ **No***	

* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date: SL 1.22.19

Comments:

(949) 297-5020 ■ www.sunstarlabs.com ■ 25712 Commercentre Drive ■ Lake Forest, CA 92630

Performance Analytical Laboratories, Inc.

411498

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901024

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis		Due	Comments
Sample ID: OS-8-1'	**Matrix:Solid**	**Sampled: 01/21/2019 07:48**	
S_PAH 8270 SIM		01/29/2019 15:00	
S_SVOA 8270C		01/29/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (G)			
Sample ID: OS-8-5'	**Matrix:Solid**	**Sampled: 01/21/2019 08:04**	
S_PAH 8270 SIM		01/29/2019 15:00	
S_SVOA 8270C		01/29/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (G)			
Sample ID: OS-8-10'	**Matrix:Solid**	**Sampled: 01/21/2019 08:18**	
S_PAH 8270 SIM		01/29/2019 15:00	MW CANCELED
S_SVOA 8270C		01/29/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (G)			

Cool @ 4°C

Released By	Date	Time	Received By	Date	Time
MWoolmale	1/23/19	1342		1/23/19	1342
	1/23/19	1510		1/23/19	1530

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: _____

Date Received: 1/23/19 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 4.6 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.3 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 1/23/19

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

Enthalpy Analytical Field Technician Request Form

Version # 2.7
Effective 9/10/15

Client Info

Client Name:	Performance Analytical Labs
Address:	2702 E. Willow Street
City:	Signal Hill
Ordered By:	Marycarol
Client Project Manager:	Marycarol Valenzuela
Phone:	(310) 809-1041
Email:	

Site Info

Address:	See above
City:	
Site Contact:	
Phone:	
2nd Site Contact:	
Phone:	

Request Completed By

Enthalpy Contact:	RKC
Date / Time:	01/22/19

Date(s) Needed:	01/23/19				
Before:		After:		Between:	Any
Assigned Field Technician:					
Arrival Time:		Leave Time:			
Pick Up	✓	**Delivery**			

Micro Sampling

1st Day:		Sampling Time:		# of samples:	
2nd Day:		Sampling Time:		# of samples:	
Verbal Notification required (ASAP):					
Primary Notification Contact Info:					
Secondary Notification Contact Info:					
Analysis:					

Water/Soil Sampling

ISCO:		Soil:		Water:	
Meter readings (ISCO):		# of samples:			
Analysis:					

Sampling Notes

TAT:		Return ASAP:		Return by:	

Comments/Instructions:
- p/u samples

Enthalpy Coordinator Use Only		Enthalpy PM Use Only	
Request Approved:		☑ Emailed ☐ Phoned ☐ No Notification	
Alternate Date/Time proposed:		Client contact notified:	Marycarol
Request Denied:			
Name / Signature:		Name / Signature:	RKC
Date/Time:		Date/Time:	01/22/19

Please initial and date any changes.

Performance Analytical Laboratories, Inc.

ELAP 2960

February 18, 2019

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : DTSC Riverside

Work Order: P901022

Dear Brad McCardell

Enclosed are the results of analyses for samples received by our laboratory on 1/19/2019. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901022

Client Name	Langan
Address	515 S. Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Neil Shukla/ Brad McCardell
Email	nshukla@langan.com
Phone	7146160163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH 8015M	Cr VI 7199	Total Metals 6020	VOCs 8260B	SVOCs, PAHs 8270C	Dioxins 1613
1	OS-11-0.5'	1/18/19	0814	S	1GJ		X	X			
2	OS-11-1'	1/18/19	0819	S	2GJ/ VOAs	X			X	X	
3	OS-11-2'	1/18/19	0821	S	1GJ		X	X			
4	OS-11-5'	1/18/19	0833	S	2GJ/ VOAs	X	X	X	X	X	
5	SW-1-0.5'		0945		2GJ		X	X			X
6	SW-1-2'		0949		2GJ		X	X			X
7	SW-1-C-5'		0953		2GJ		X	X			
8	SW-1-B-5'		0956		2GJ		X	X			
9	TL-4-0.5'		1048		1GJ		X	X			
10	TL-4-2'		1050		1GJ		X	X			

REQUESTED ANALYSIS

PAL Containers used:	Yes	No	
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	

TAT Needed (circle one): **STD** 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: Yes / No

Type of EDD: EZEDD

Reciept Temp./ Initials: 3.2°C MV
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: Brad McCardell
Print: Brad McCardell
Company: Langan
DATE: 1/19/19
TIME: 12:20 pm

RECEIVED BY
Signature: M Valenzuela
Print: M Valenzuela
Company: PAL
DATE: 1/19/19
TIME: 1226

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-4705

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901022

Client Name	Langan
Address	515 S. Flower St. Suite 2660 Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	7146160163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020
1	TL-4-5'	1/18/19	1053	S	1 J	X	X
2	VP-5-0.5'		1150		1 J	X	X
3	VP-5-2'		1152		1 J	X	X
4	VP-5-5'		1154		1 J	X	X
5	CKDSP5-S01-0.5'		1338		1 J		
6	CKDSP5-S01-2'		1340				
7	CKDSP5-S01-5'		1345				
8	CKDSP5-S02-0.5'		1350				
9	CKDSP5-S02-2'		1357				
10	CKDSP5-S02-5'		1400				

G-4706

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: (Yes) No

Type of EDD: EZEDD

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: [signature]
Print: Brad McCardell
Company: Langan
DATE: 1/18/19
TIME: 12:20 pm

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 1/19/19
TIME: 1226

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901022

Client Name	Langan
Address	515 S Flower St, Suite 2860, Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	7146160163
Project Name/Number	
P.O. Number	72013502
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020
1	CKDSPS-S05-0.5'	1/18/19	1408	S	1 J	X	X
2	CKDSPS-S05-2'		1412		1 J	X	X
3	CKDSPS-S05-5'		1415		1 J	X	X
4	CKDSPS-S04-0.5'		1423		1 J	X	X
5	CKDSPS-S04-2'		1425		1 J	X	X
6	CKDSPS-S04-5'		1428		1 J	X	X
7	CKDSPS-S03-0.5'		1435			X	X
8	CKDSPS-S03-2'		1437			X	X
9	CKDSPS-S03-5'		1442			X	X
10	WC-2-0.5'		1402			X	X

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD 5 day) | RUSH: 24 | 48 | 72

EDD Required - Circle one: (Yes) No

Type of EDD: EZEDD

Reciept Temp./ Initials:
(Temp recorded is not corrected)

	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	[signature]	[signature]		
Print:	B McCardell	M Valenzuela		
Company:	Langan	PAL		
DATE:	1/18/19	1/19/19		
TIME:	12:20 pm	1226		

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

G-4707

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901022

Client Name	Langan
Address	515 S Flower St. Suite 2260 Los Angeles, CA 90071
Project Manager	Neil Shukla / Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo / Laura Hrabar

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	REQUESTED ANALYSIS: CrVI 7199	Total Metals 6020
1	WC-2-2'	1/18/19	1500	S	1J	X	X
2	WC-2-5'	"	1504	"	"	"	"
3	WC-1-0.5'	"	1516	"	"	"	"
4	WC-1-2'	"	1519	"	"	"	"
5	WC-1-5'-	"	1525	"	1J	"	"
6							
7							
8							
9							
10							

G-4708

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one): (STD) 5 day | RUSH 24 | 48 | 72

EDD Required - Circle one: (Yes) No

Type of EDD: EZEDD

Reciept Temp./ Initials:
(Temp recorded is not corrected)

RELINQUISHED BY
Signature: [signature]
Print: Brad McCardell
Company: Langan
DATE: 1/19/19
TIME: 12:20pm

RECEIVED BY
Signature: [signature]
Print: M Valenzuela
Company: PAL
DATE: 1/19/19
TIME: 1220

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (S = Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = Other Water); (O = Other)
**Container Code: (V = VOA); (P = Poly); (G = Glass); (L = Sleeve); (J = Jar)
**Preservation Code: (H = HCl); (N = HNO3); (S = H2SO4); (O = NaOH); (Z = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P901022

Cooler 1 OF 1

Client Langan

Date Received: 1/19/19

Courier ◯ CLIENT ◯ PALI ◯ OTHER _____ ◯ FEDEX ◯ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	◯ Blank ⊗ Sample	3.2	0.0	3.2	TM-12

⊗ WET ICE ◯ BLUE ICE ◯ AMBIENT ◯ OTHER _____

◯ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ◯ Present and Intact ◯ Present and **NOT** Intact ◯ Seals signed and dated ⊗ Not Present

Sample Seal ◯ Present and Intact ◯ Present and **NOT** Intact ◯ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ◯ NOT INCLUDED

⊗ Complete ◯ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ◯ LIQUID ◯ AIR ◯ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MJ	1/21/19		

Performance Analytical Laboratories, Inc.

411366

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901022

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis		Due	Comments
Sample ID: OS-11-1'	**Matrix:Solid**	**Sampled: 01/18/2019 08:19**	
S_PAH 8270 SIM		01/28/2019 15:00	
S_SVOA 8270C		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (E)			
Sample ID: OS-11-5'	**Matrix:Solid**	**Sampled: 01/18/2019 08:33**	
S_PAH 8270 SIM		01/28/2019 15:00	
S_SVOA 8270C		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (E)			
Sample ID: SW-1-0.5'	**Matrix:Solid**	**Sampled: 01/18/2019 09:45**	
S_Dioxin (17 Congeners)		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (B)			
Sample ID: SW-1-2'	**Matrix:Solid**	**Sampled: 01/18/2019 09:49**	
S_Dioxin (17 Congeners)		01/28/2019 15:00	
Containers Supplied:			
Glass Jar, 4 oz (B)			

Released By	Date	Time	Received By	Date	Time
M Valenzuela	1/21/19	1019	Ken	Enthalpy 1/21/19	1020
Kelvin Day	1/21/19	1447		01/21/19	1447

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: P901022

Date Received: 1/21/19 Sampler's Name Present: ☐ Yes ☒ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 2.6 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 1.7 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 01/21/19

Enthalpy Analytical, a subsidiary of Montrose Environmental Group ,Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

Enthalpy Analytical Field Technician Request Form

Version # 2.7
Effective 9/10/15

Client Info

Client Name:	Performance Analytical Labs
Address:	2702 E. Willow Street
City:	Signal Hill
Ordered By:	Marycarol
Client Project Manager:	Marycarol Valenzuela
Phone:	(310) 809-1041
Email:	

Site Info

Address:	See above
City:	
Site Contact:	
Phone:	
2nd Site Contact:	
Phone:	

Request Completed By

Enthalpy Contact:	RKC
Date / Time:	01/21/19

Date(s) Needed:	01/21/19				
Before:		After:		Between:	Any
Assigned Field Technician:					
Arrival Time:		Leave Time:			
Pick Up	✓	**Delivery**			

Micro Sampling

1st Day:		Sampling Time:		# of samples:	
2nd Day:		Sampling Time:		# of samples:	
Verbal Notification required (ASAP):					
Primary Notification Contact Info:					
Secondary Notification Contact Info:					
Analysis:					

Water/Soil Sampling

ISCO:		Soil:		Water:	
Meter readings (ISCO):		# of samples:			
Analysis:					

Sampling Notes

TAT:		Return ASAP:		Return by:	

Comments/Instructions:
- p/u samples

Enthalpy Coordinator Use Only		Enthalpy PM Use Only	
Request Approved:		☑ Emailed ☐ Phoned ☐ No Notification	
Alternate Date/Time proposed:		Client contact notified:	Marycarol
Request Denied:			
Name / Signature:		Name / Signature:	RKC
Date/Time:		Date/Time:	01/21/19

Please initial and date any changes.

Enthalpy Analytical, LLC
931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client: Performance Analytical Laboratories, Inc.
Address: 2702 E. Willow Street
Signal Hill, CA 90755

Attn: Marycarol Valenzuela

Comments: P901022

Supplemental Report 1 - Results for Dioxins/Furans only.

Lab Request: 411366
Report Date: 02/07/2019
Date Received: 01/21/2019
Client ID: 15509

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
411366-003	SW-1-0.5'
411366-004	SW-1-2'

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date received.

The reports of the Enthalpy Analytical, Inc. are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

Matrix:	Solid	**Client:**	Performance Analytical Laboratories, Inc.	**Collector:**	Client
Sampled:	01/18/2019 09:45	**Site:**			
Sample #:	**411366-003**	**Client Sample #:**	SW-1-0.5'	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 1613B	Prep Method: See Attached					QCBatchID:		
See Attached		1						

Matrix:	Solid	**Client:**	Performance Analytical Laboratories, Inc.	**Collector:**	Client
Sampled:	01/18/2019 09:49	**Site:**			
Sample #:	**411366-004**	**Client Sample #:**	SW-1-2'	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 1613B	Prep Method: See Attached					QCBatchID:		
See Attached		1						

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
BQ5	Minor Dissolved Oxygen loss was observed in the blank water check.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
IR	Inconclusive Result. Legionella is present, however, there is possible non-specific agglutination preventing specific identification.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
L2	LCS did not meet recovery criteria, however, the MS and/or MSD met LCS recovery criteria, validating the batch.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

Enthalpy - Orange

1 Park Plaza, Suite 1000
Irvine, CA 92614

Samples Received: 1/23/19
Client Project # 411366

Analytical Report
(0119-719)

Method 8290
PCDD/PCDF

Enthalpy Analytical, LLC – Ultratrace
Phone: (910) 212-5858 / www.enthalpy.com
2714 Exchange Drive, Wilmington, NC 28405

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains 19 pages.

Juanica L. Thomas

QA Review Performed by: Juanica L. Thomas

Report Issued Date: 2-6-19

ENTHALPY ANALYTICAL

ENTHALPY ANALYTICAL

Summary of Results: Totals

Enthalpy Ultratrace Batch # 10195

Method 8290

Analyte	Method Blank pg/g	SW-1-0.5' (411366-003) pg/g	SW-1-2' (411366-004) pg/g
Totals			
TCDDs	(0.0736)	0.302	(0.0489)
PeCDDs	(0.0893)	(0.0890)	(0.0664)
HxCDDs	(0.0547)	1.02	0.199
HpCDDs	(0.0614)	3.16	1.39
OCDD	(0.0676)	6.14	3.03
TCDFs	(0.0265)	(0.0387)	3.02
PeCDFs	(0.0521)	1.94	1.94
HxCDFs	(0.0326)	1.34	2.56
HpCDFs	(0.0228)	1.71	1.62
OCDF	(0.0497)	0.546	0.172

ND = (DL) EMPC = [ ]

ENTHALPY ANALYTICAL

SW-1-0.5' (411366-003)					Detailed Results - Method 8290
Client Details					
Client Sample ID:	SW-1-0.5' (411366-003)	**Client Name:**	Enthalpy-Orange		
Client Project ID:	411366	**Sample Collection Date:**	18-Jan-19	**RRFs:**	CS3 AB
Lab/Sample Details					
Lab Job #:	0119-719	**Matrix:**	Solid	**Date Received:**	23-Jan-19
Lab Sample ID:	0119-719_10195_001	**Weight/Volume:**	10.7	**Date Extracted:**	24-Jan-19
QC Batch #:	10195	**Split Factor:**	1	**Date Analyzed:**	29-Jan-19
Dilution:	-			**Time Analyzed:**	22:01:49

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0650		U	ES 2,3,7,8-TCDD	93.6	
1,2,3,7,8-PeCDD	ND	0.0890		U	ES 1,2,3,7,8-PeCDD	89.4	
1,2,3,4,7,8-HxCDD	ND	0.0625		U	ES 1,2,3,4,7,8-HxCDD	84.9	
1,2,3,6,7,8-HxCDD	ND	0.0643		U	ES 1,2,3,6,7,8-HxCDD	84.5	
1,2,3,7,8,9-HxCDD	ND	0.0674		U	ES 1,2,3,7,8,9-HxCDD	77.5	
1,2,3,4,6,7,8-HpCDD	1.53				ES 1,2,3,4,6,7,8-HpCDD	75.9	
OCDD	6.14				ES OCDD	70.0	
2,3,7,8-TCDF	ND	0.0387		U	ES 2,3,7,8-TCDF	94.5	
1,2,3,7,8-PeCDF	ND	0.0471		U	ES 1,2,3,7,8-PeCDF	97.2	
2,3,4,7,8-PeCDF	ND	0.0454		U	ES 2,3,4,7,8-PeCDF	93.2	
1,2,3,4,7,8-HxCDF	ND	0.0270		U	ES 1,2,3,4,7,8-HxCDF	82.0	
1,2,3,6,7,8-HxCDF	ND	0.0275		U	ES 1,2,3,6,7,8-HxCDF	80.1	
2,3,4,6,7,8-HxCDF	ND	0.0291		U	ES 2,3,4,6,7,8-HxCDF	79.7	
1,2,3,7,8,9-HxCDF	ND	0.0334		U	ES 1,2,3,7,8,9-HxCDF	83.7	
1,2,3,4,6,7,8-HpCDF	EMPC		0.329	EMPC	ES 1,2,3,4,6,7,8-HpCDF	77.7	
1,2,3,4,7,8,9-HpCDF	ND	0.0220		U	ES 1,2,3,4,7,8,9-HpCDF	78.5	
OCDF	EMPC		0.546	EMPC	ES OCDF	71.6	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	147	V
Total TCDDs	0.302		0.302		CS 12347-PeCDD	102	
Total PeCDDs	ND	0.0890	ND	U	CS 12346-PeCDF	107	
Total HxCDDs	1.02		1.02		CS 123469-HxCDF	101	
Total HpCDDs	3.16		3.16		CS 1234689-HpCDF	86.0	
					AS 1368-TCDD	97.0	
Total TCDFs	ND	0.0387	ND	U	AS 1368-TCDF	93.4	
Total PeCDFs	1.94		1.94				
Total HxCDFs	ND	0.0292	1.34				
Total HpCDFs	1.38		1.71				
Total PCDD/PCDFs	**13.9**		**16.2**				

ENTHALPY ANALYTICAL

SW-1-2' (411366-004)						Detailed Results - Method 8290	
Client Details							
Client Sample ID:	SW-1-2' (411366-004)		**Client Name:**	Enthalpy-Orange			
Client Project ID:	411366		**Sample Collection Date:**	18-Jan-19		**RRFs:**	CS3 AB
Lab/Sample Details							
Lab Job #:	0119-719	**Matrix:**	Solid	**Date Received:**	23-Jan-19		
Lab Sample ID:	0119-719_10195_002	**Weight/Volume:**	11.6	**Date Extracted:**	24-Jan-19		
QC Batch #:	10195	**Split Factor:**	1	**Date Analyzed:**	29-Jan-19		
Dilution:	-			**Time Analyzed:**	22:50:12		

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0489		U	ES 2,3,7,8-TCDD	85.4	
1,2,3,7,8-PeCDD	ND	0.0664		U	ES 1,2,3,7,8-PeCDD	86.1	
1,2,3,4,7,8-HxCDD	ND	0.0535		U	ES 1,2,3,4,7,8-HxCDD	74.2	
1,2,3,6,7,8-HxCDD	ND	0.0504		U	ES 1,2,3,6,7,8-HxCDD	73.6	
1,2,3,7,8,9-HxCDD	EMPC		0.199	EMPC	ES 1,2,3,7,8,9-HxCDD	72.3	
1,2,3,4,6,7,8-HpCDD	EMPC		0.628	EMPC	ES 1,2,3,4,6,7,8-HpCDD	69.4	
OCDD	3.03				ES OCDD	71.6	
2,3,7,8-TCDF	ND	0.0351		U	ES 2,3,7,8-TCDF	85.3	
1,2,3,7,8-PeCDF	ND	0.0337		U	ES 1,2,3,7,8-PeCDF	87.2	
2,3,4,7,8-PeCDF	ND	0.0356		U	ES 2,3,4,7,8-PeCDF	84.8	
1,2,3,4,7,8-HxCDF	ND	0.0196		U	ES 1,2,3,4,7,8-HxCDF	70.3	
1,2,3,6,7,8-HxCDF	ND	0.0193		U	ES 1,2,3,6,7,8-HxCDF	70.2	
2,3,4,6,7,8-HxCDF	EMPC		0.174	EMPC	ES 2,3,4,6,7,8-HxCDF	71.7	
1,2,3,7,8,9-HxCDF	ND	0.0213		U	ES 1,2,3,7,8,9-HxCDF	75.3	
1,2,3,4,6,7,8-HpCDF	EMPC		0.240	EMPC	ES 1,2,3,4,6,7,8-HpCDF	71.8	
1,2,3,4,7,8,9-HpCDF	ND	0.0327		U	ES 1,2,3,4,7,8,9-HpCDF	72.2	
OCDF	0.172			J	ES OCDF	75.0	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	140	V
Total TCDDs	ND	0.0489	ND	U	CS 12347-PeCDD	93.4	
Total PeCDDs	ND	0.0664	ND	U	CS 12346-PeCDF	94.3	
Total HxCDDs	ND	0.0539	0.199		CS 123469-HxCDF	87.2	
Total HpCDDs	0.764		1.39		CS 1234689-HpCDF	81.5	
					AS 1368-TCDD	89.1	
Total TCDFs	1.96		3.02		AS 1368-TCDF	81.5	
Total PeCDFs	1.94		1.94				
Total HxCDFs	2.38		2.56				
Total HpCDFs	1.38		1.62				
Total PCDD/PCDFs	**11.6**		**13.9**				

Continuing Calibration — PCDD/Fs

	CS3-A	CS3-B
Concentration (pg/µL)	10	10
Standard ID	SIDAA19	SIDAA19
Acquisition Date	29-Jan-19	30-Jan-19
Acquisition Time	17:11:42	0:27:00

Analyte	RRF	RRF	ICAL RRFs	PD (CS3-A v. ICAL)	PD (CS3-B v. ICAL)	Average RRF	RPD (CS3s)
2,3,7,8-TCDD	1.10	1.08	1.09	0.9	-0.9	1.09	1.8
1,2,3,7,8-PeCDD	0.99	0.95	1.02	-2.9	-6.9	0.97	4.1
1,2,3,4,7,8-HxCDD	1.02	1.06	1.09	-6.4	-2.8	1.04	3.8
1,2,3,6,7,8-HxCDD	1.12	1.04	1.09	2.8	-4.6	1.08	7.4
1,2,3,7,8,9-HxCDD	0.98	0.98	1.04	-5.8	-5.8	0.98	0.0
1,2,3,4,6,7,8-HpCDD	0.95	0.96	1.03	-7.8	-6.8	0.96	1.0
OCDD	1.08	1.03	1.12	-3.6	-8.0	1.06	4.7
2,3,7,8-TCDF	0.97	0.99	1.00	-3.0	-1.0	0.98	2.0
1,2,3,7,8-PeCDF	0.98	0.97	1.00	-2.0	-3.0	0.98	1.0
2,3,4,7,8-PeCDF	0.98	0.96	1.00	-2.0	-4.0	0.97	2.1
1,2,3,4,7,8-HxCDF	1.26	1.29	1.29	-2.3	0.0	1.28	2.4
1,2,3,6,7,8-HxCDF	1.18	1.16	1.19	-0.8	-2.5	1.17	1.7
2,3,4,6,7,8-HxCDF	1.18	1.15	1.22	-3.3	-5.7	1.17	2.6
1,2,3,7,8,9-HxCDF	1.16	1.16	1.19	-2.5	-2.5	1.16	0.0
1,2,3,4,6,7,8-HpCDF	1.36	1.41	1.43	-4.9	-1.4	1.39	3.6
1,2,3,4,7,8,9-HpCDF	1.34	1.40	1.42	-5.6	-1.4	1.37	4.4
OCDF	1.05	1.04	1.07	-1.9	-2.8	1.05	1.0
ES 2,3,7,8-TCDD	0.99	0.95	1.02	-2.9	-6.9	0.97	4.1
ES 1,2,3,7,8-PeCDD	0.85	0.78	0.80	6.2	-2.5	0.82	8.6
ES 1,2,3,4,7,8-HxCDD	1.00	1.00	1.05	-4.8	-4.8	1.00	0.0
ES 1,2,3,6,7,8-HxCDD	0.91	0.99	1.02	-10.8	-2.9	0.95	8.4
ES 1,2,3,7,8,9-HxCDD	1.09	1.08	1.14	-4.4	-5.3	1.09	0.9
ES 1,2,3,4,6,7,8-HpCDD	0.98	0.97	0.92	6.5	5.4	0.98	1.0
ES OCDD	0.76	0.75	0.66	15.2	13.6	0.76	1.3
ES 2,3,7,8-TCDF	1.01	0.99	1.03	-1.9	-3.9	1.00	2.0
ES 1,2,3,7,8-PeCDF	0.88	0.81	0.86	2.3	-5.8	0.85	8.3
ES 2,3,4,7,8-PeCDF	0.87	0.79	0.84	3.6	-6.0	0.83	9.6
ES 1,2,3,4,7,8-HxCDF	1.14	1.15	1.30	-12.3	-11.5	1.15	0.9
ES 1,2,3,6,7,8-HxCDF	1.28	1.34	1.47	-12.9	-8.8	1.31	4.6
ES 2,3,4,6,7,8-HxCDF	1.19	1.24	1.36	-12.5	-8.8	1.22	4.1
ES 1,2,3,7,8,9-HxCDF	1.09	1.10	1.20	-9.2	-8.3	1.10	0.9
ES 1,2,3,4,6,7,8-HpCDF	0.99	0.94	1.00	-1.0	-6.0	0.97	5.2
ES 1,2,3,4,7,8,9-HpCDF	0.90	0.83	0.85	5.9	-2.4	0.87	8.1
ES OCDF	0.97	0.91	0.87	11.5	4.6	0.94	6.4

Continuing Calibration — PCDD/Fs

	CS3-A	CS3-B
Concentration (pg/µL)	10	10
Standard ID	SIDAA19	SIDAA19
Acquisition Date	29-Jan-19	30-Jan-19
Acquisition Time	17:11:42	0:27:00

Analyte	RRF	RRF	ICAL RRFs	PD (CS3-A v. ICAL)	PD (CS3-B v. ICAL)	Average RRF	RPD (CS3s)
CS 37Cl-2378-TCDD	1.14	1.16	1.15	-0.9	0.9	1.15	1.7
CS 12347-PeCDD	0.82	0.73	0.75	9.3	-2.7	0.78	11.6
CS 12346-PeCDF	0.91	0.85	0.88	3.4	-3.4	0.88	6.8
CS 123469-HxCDF	1.16	1.21	1.31	-11.5	-7.6	1.19	4.2
CS 1234689-HpCDF	0.90	0.89	0.92	-2.2	-3.3	0.90	1.1
SS 37Cl-2378-TCDD	1.16	1.22	1.12	3.6	8.9	1.19	5.0
SS 12347-PeCDD	0.97	0.94	0.94	3.2	0.0	0.96	3.1
SS 12346-PeCDF	1.03	1.05	1.02	1.0	2.9	1.04	1.9
SS 123469-HxCDF	0.97	0.98	0.96	1.0	2.1	0.98	1.0
SS 1234689-HpCDF	0.90	0.94	0.92	-2.2	2.2	0.92	4.3
AS 1368-TCDD	1.05	1.05	1.10	-4.5	-4.5	1.05	0.0
AS 1368-TCDF	1.12	1.15	1.18	-5.1	-2.5	1.14	2.6
FS 1278-TCDD	-	-	1.11	-	-	-	-
FS 12478-PeCDD	-	-	1.05	-	-	-	-
FS 123468-HxCDD	-	-	1.14	-	-	-	-
FS 1234679-HpCDD	-	-	1.17	-	-	-	-
TS 1378-TCDD	-	-	1.04	-	-	-	-
Analyte	Area	Area					
JS 1234-TCDD	753768	737318					
JS 1234-TCDF	1056327	1023110					
JS 123467-HxCDD	584861	472686					

ENTHALPY ANALYTICAL

Method Blank — Detailed Results - Method 8290

RRFs: CS3 AB

Lab/Sample Details

		Matrix:	Solid	Date Received:	N/A
Lab Sample ID:	MB1_10195_DF	Weight/Volume:	10	Date Extracted:	24-Jan-19
QC Batch #:	10195	Split Factor:	1	Date Analyzed:	29-Jan-19
Dilution:	-			Time Analyzed:	19:36:39

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0736		U	ES 2,3,7,8-TCDD	83.3	
1,2,3,7,8-PeCDD	ND	0.0893		U	ES 1,2,3,7,8-PeCDD	83.0	
1,2,3,4,7,8-HxCDD	ND	0.0549		U	ES 1,2,3,4,7,8-HxCDD	74.6	
1,2,3,6,7,8-HxCDD	ND	0.0549		U	ES 1,2,3,6,7,8-HxCDD	76.4	
1,2,3,7,8,9-HxCDD	ND	0.0552		U	ES 1,2,3,7,8,9-HxCDD	72.4	
1,2,3,4,6,7,8-HpCDD	ND	0.0614		U	ES 1,2,3,4,6,7,8-HpCDD	72.9	
OCDD	ND	0.0676		U	ES OCDD	74.0	
2,3,7,8-TCDF	ND	0.0265		U	ES 2,3,7,8-TCDF	81.7	
1,2,3,7,8-PeCDF	ND	0.0235		U	ES 1,2,3,7,8-PeCDF	84.7	
2,3,4,7,8-PeCDF	ND	0.0232		U	ES 2,3,4,7,8-PeCDF	80.8	
1,2,3,4,7,8-HxCDF	ND	0.0296		U	ES 1,2,3,4,7,8-HxCDF	69.4	
1,2,3,6,7,8-HxCDF	ND	0.0307		U	ES 1,2,3,6,7,8-HxCDF	70.7	
2,3,4,6,7,8-HxCDF	ND	0.0323		U	ES 2,3,4,6,7,8-HxCDF	71.7	
1,2,3,7,8,9-HxCDF	ND	0.0354		U	ES 1,2,3,7,8,9-HxCDF	76.0	
1,2,3,4,6,7,8-HpCDF	ND	0.0214		U	ES 1,2,3,4,6,7,8-HpCDF	73.1	
1,2,3,4,7,8,9-HpCDF	ND	0.0294		U	ES 1,2,3,4,7,8,9-HpCDF	72.6	
OCDF	ND	0.0497		U	ES OCDF	75.2	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	147	V
Total TCDDs	ND	0.0736	ND	U	CS 12347-PeCDD	99.8	
Total PeCDDs	ND	0.0893	ND	U	CS 12346-PeCDF	99.6	
Total HxCDDs	ND	0.0547	ND	U	CS 123469-HxCDF	97.6	
Total HpCDDs	ND	0.0614	ND	U	CS 1234689-HpCDF	90.7	
					AS 1368-TCDD	98.1	
Total TCDFs	ND	0.0265	ND	U	AS 1368-TCDF	92.1	
Total PeCDFs	ND	0.0521	ND	U			
Total HxCDFs	ND	0.0326	ND	U			
Total HpCDFs	ND	0.0228	ND	U			
Total PCDD/PCDFs	**ND**		**ND**				

ENTHALPY ANALYTICAL

OPR					Detailed Results - Method 8290	
					RRFs: CS3 AB	
Lab/Sample Details						
		Matrix:	Solid	Date Received:	N/A	
Lab Sample ID:	OPR_10195_DF	Final Vol. (uL)	20	Date Extracted:	24-Jan-19	
QC Batch #:	10195	Split Factor:	1	Date Analyzed:	29-Jan-19	
Dilution:	-			Time Analyzed:	17:59:52	

Analyte	Conc. (pg)	DL (pg)	EMPC (pg)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	10.2				ES 2,3,7,8-TCDD	75.3	
1,2,3,7,8-PeCDD	50.2				ES 1,2,3,7,8-PeCDD	79.1	
1,2,3,4,7,8-HxCDD	49.8				ES 1,2,3,4,7,8-HxCDD	72.0	
1,2,3,6,7,8-HxCDD	48.4				ES 1,2,3,6,7,8-HxCDD	73.4	
1,2,3,7,8,9-HxCDD	48.6				ES 1,2,3,7,8,9-HxCDD	70.4	
1,2,3,4,6,7,8-HpCDD	50.9				ES 1,2,3,4,6,7,8-HpCDD	67.0	
OCDD	104				ES OCDD	68.9	
2,3,7,8-TCDF	10.1				ES 2,3,7,8-TCDF	74.9	
1,2,3,7,8-PeCDF	49.7				ES 1,2,3,7,8-PeCDF	78.6	
2,3,4,7,8-PeCDF	50.5				ES 2,3,4,7,8-PeCDF	74.9	
1,2,3,4,7,8-HxCDF	49.6				ES 1,2,3,4,7,8-HxCDF	67.1	
1,2,3,6,7,8-HxCDF	49.8				ES 1,2,3,6,7,8-HxCDF	64.1	
2,3,4,6,7,8-HxCDF	50.1				ES 2,3,4,6,7,8-HxCDF	71.1	
1,2,3,7,8,9-HxCDF	49.8				ES 1,2,3,7,8,9-HxCDF	71.7	
1,2,3,4,6,7,8-HpCDF	49.7				ES 1,2,3,4,6,7,8-HpCDF	70.8	
1,2,3,4,7,8,9-HpCDF	51.0				ES 1,2,3,4,7,8,9-HpCDF	68.1	
OCDF	97.1				ES OCDF	73.3	
Totals	**Conc. (pg)**	**DL (pg)**	**EMPC (pg)**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	145	V
Total TCDDs	10.2		10.2		CS 12347-PeCDD	103	
Total PeCDDs	50.2		50.2		CS 12346-PeCDF	101	
Total HxCDDs	147		147		CS 123469-HxCDF	101	
Total HpCDDs	50.9		50.9		CS 1234689-HpCDF	91.7	
					AS 1368-TCDD	101	
Total TCDFs	10.1		10.1		AS 1368-TCDF	92.5	
Total PeCDFs	100		100				
Total HxCDFs	199		199				
Total HpCDFs	101		101				
Total PCDD/PCDFs	**870**		**870**				

OPR Demonstration Data

Batch ID#: 10195

Analyte	Conc. (pg)	Lower Limit	Upper Limit	Acceptable?	Standard	ES Recoveries	Lower Limit	Upper Limit	Acceptable?
2,3,7,8-TCDD	10.2	6.7	15.8	Y	ES 2,3,7,8-TCDD	75	20	175	Y
1,2,3,7,8-PeCDD	50.2	35	71	Y	ES 1,2,3,7,8-PeCDD	79	21	227	Y
1,2,3,4,7,8-HxCDD	49.8	35	82	Y	ES 1,2,3,4,7,8-HxCDD	72	21	193	Y
1,2,3,6,7,8-HxCDD	48.4	38	67	Y	ES 1,2,3,6,7,8-HxCDD	73	25	163	Y
1,2,3,7,8,9-HxCDD	48.6	32	81	Y	ES 1,2,3,7,8,9-HxCDD	70	N/A	N/A	N/A
1,2,3,4,6,7,8-HpCDD	50.9	35	70	Y	ES 1,2,3,4,6,7,8-HpCDD	67	26	166	Y
OCDD	104.0	78	144	Y	ES OCDD	138	26	397	Y
2,3,7,8-TCDF	10.1	7.5	15.8	Y	ES 2,3,7,8-TCDF	75	22	152	Y
1,2,3,7,8-PeCDF	49.7	40	67	Y	ES 1,2,3,7,8-PeCDF	79	21	192	Y
2,3,4,7,8-PeCDF	50.5	34	80	Y	ES 2,3,4,7,8-PeCDF	75	13	328	Y
1,2,3,4,7,8-HxCDF	49.6	36	67	Y	ES 1,2,3,4,7,8-HxCDF	67	19	202	Y
1,2,3,6,7,8-HxCDF	49.8	42	65	Y	ES 1,2,3,6,7,8-HxCDF	64	21	159	Y
2,3,4,6,7,8-HxCDF	50.1	39	65	Y	ES 2,3,4,6,7,8-HxCDF	71	17	205	Y
1,2,3,7,8,9-HxCDF	49.8	35	78	Y	ES 1,2,3,7,8,9-HxCDF	72	22	176	Y
1,2,3,4,6,7,8-HpCDF	49.7	41	61	Y	ES 1,2,3,4,6,7,8-HpCDF	71	21	158	Y
1,2,3,4,7,8,9-HpCDF	51.0	39	69	Y	ES 1,2,3,4,7,8,9-HpCDF	68	20	186	Y
OCDF	97.1	63	170	Y	ES OCDF	147	N/A	N/A	N/A
					CS 2,3,7,8 TCDD	15	3.1	19.1	Y

C4725

ENTHALPY ANALYTICAL

Summary of Results: I-TEF TEQ

Enthalpy Ultratrace Batch # 10195

Method 8290

Analyte	Method Blank pg/g	SW-1-0.5' (411366-003) pg/g	SW-1-2' (411366-004) pg/g
2,3,7,8-TCDD	(0.0736)	(0.065)	(0.0489)
1,2,3,7,8-PeCDD	(0.0893)	(0.089)	(0.0664)
1,2,3,4,7,8-HxCDD	(0.0549)	(0.0625)	(0.0535)
1,2,3,6,7,8-HxCDD	(0.0549)	(0.0643)	(0.0504)
1,2,3,7,8,9-HxCDD	(0.0552)	(0.0674)	[0.199]
1,2,3,4,6,7,8-HpCDD	(0.0614)	1.53	[0.628]
OCDD	(0.0676)	6.14	3.03
2,3,7,8-TCDF	(0.0265)	(0.0387)	(0.0351)
1,2,3,7,8-PeCDF	(0.0235)	(0.0471)	(0.0337)
2,3,4,7,8-PeCDF	(0.0232)	(0.0454)	(0.0356)
1,2,3,4,7,8-HxCDF	(0.0296)	(0.027)	(0.0196)
1,2,3,6,7,8-HxCDF	(0.0307)	(0.0275)	(0.0193)
2,3,4,6,7,8-HxCDF	(0.0323)	(0.0291)	[0.174]
1,2,3,7,8,9-HxCDF	(0.0354)	(0.0334)	(0.0213)
1,2,3,4,6,7,8-HpCDF	(0.0214)	[0.329]	[0.24]
1,2,3,4,7,8,9-HpCDF	(0.0294)	(0.022)	(0.0327)
OCDF	(0.0497)	[0.546]	0.172
ND = (DL) EMPC = [ ]			
ITEF TEQ (ND=0; EMPC=0)	0.00	0.0216	0.0112
ITEF TEQ (ND=0; EMPC=EMPC)	0.00	0.0252	0.0492
ITEF TEQ (ND=DL/2; EMPC=0)	0.0821	0.106	0.0721
ITEF TEQ (ND=DL/2; EMPC=EMPC)	0.0821	0.110	0.110
ITEF TEQ (ND=DL; EMPC=EMPC)	0.164	0.195	0.171
Lab Sample ID	MB1_10195_DF	0119-719_10195_001	0119-719_10195_002

ENTHALPY ANALYTICAL

Summary of Results: WHO-2005 TEF TEQ

Enthalpy Ultratrace Batch # 10195

Method 8290

Analyte	Method Blank pg/g	SW-1-0.5' (411366-003) pg/g	SW-1-2' (411366-004) pg/g
2,3,7,8-TCDD	(0.0736)	(0.065)	(0.0489)
1,2,3,7,8-PeCDD	(0.0893)	(0.089)	(0.0664)
1,2,3,4,7,8-HxCDD	(0.0549)	(0.0625)	(0.0535)
1,2,3,6,7,8-HxCDD	(0.0549)	(0.0643)	(0.0504)
1,2,3,7,8,9-HxCDD	(0.0552)	(0.0674)	[0.199]
1,2,3,4,6,7,8-HpCDD	(0.0614)	1.53	[0.628]
OCDD	(0.0676)	6.14	3.03
2,3,7,8-TCDF	(0.0265)	(0.0387)	(0.0351)
1,2,3,7,8-PeCDF	(0.0235)	(0.0471)	(0.0337)
2,3,4,7,8-PeCDF	(0.0232)	(0.0454)	(0.0356)
1,2,3,4,7,8-HxCDF	(0.0296)	(0.027)	(0.0196)
1,2,3,6,7,8-HxCDF	(0.0307)	(0.0275)	(0.0193)
2,3,4,6,7,8-HxCDF	(0.0323)	(0.0291)	[0.174]
1,2,3,7,8,9-HxCDF	(0.0354)	(0.0334)	(0.0213)
1,2,3,4,6,7,8-HpCDF	(0.0214)	[0.329]	[0.24]
1,2,3,4,7,8,9-HpCDF	(0.0294)	(0.022)	(0.0327)
OCDF	(0.0497)	[0.546]	0.172
ND = (DL) EMPC = [ ]			
WHO-2005 TEQ (ND=0; EMPC=0)	0.00	0.0173	0.00898
WHO-2005 TEQ (ND=0; EMPC=EMPC)	0.00	0.0205	0.0470
WHO-2005 TEQ (ND=DL/2; EMPC=0)	0.102	0.119	0.0826
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)	0.102	0.123	0.121
WHO-2005 TEQ (ND=DL; EMPC=EMPC)	0.204	0.225	0.194
Lab Sample ID	MB1_10195_DF	0119-719_10195_001	0119-719_10195_002

Enthalpy Analytical Narrative Summary

Company	Enthalpy – Orange
Analyst	L. Boivin
Parameters	PCDD/PCDF

Client #	411366
Job #	0119-719
# Samples	2

Custody

Enthalpy Analytical Wilmington received the samples (via FedEx) by Robin Appelle, 1/23/19, on ice at 2.4°C in good condition.

Prior to, during, and after analysis, the samples were stored in the laboratory with access only by authorized personnel of Enthalpy Analytical, LLC.

Analysis

The samples were analyzed by EPA Method 8290 for PCDD/PCDF by HRGC/HRMS. The analysis was done using the following instrumentation; High-Resolution-GC - Agilent Tech Model# 6890, AutoSampler – CTC A200 and High-Resolution Mass-Spec. – Waters (Galadriel).

After sampling by the client, the laboratory spiked the samples with ES (extraction standard), extracted by liquid-liquid extraction (with methylene chloride), and spiked with AS (alternate standard) after solvent exchange. The extracts were processed via the cleanup procedure. The final extract was transferred to an autosampler vial and spiked with 20 µL of JS (injection standard solution) prior to analysis.

Calibration

The analytes and labeled standards in the initial calibration exhibited RSDs less than 20%. The continuing calibration met the 20% criteria for native analytes, and met the 30% criterion for the labeled standards. The OPR met the 40-130% criterion for ES recoveries with the exception of CS 37Cl-2378-TCDD, which fell outside the upper limits.

QC Notes

The Method Blank did not detect any analytes above the LOQ and met the 40-130% criterion for ES recoveries with the exception of CS 37Cl-2378-TCDD, which fell outside the upper limits.

The HRMS system displayed mass resolving power of at least 10,000 during the analysis.

The QC injections passed all method criteria.

Labeled and sampling (surrogate) standard recoveries were acceptable.

The samples were extracted well within the 30-day from collection holding time and analyzed within the 45-day from extraction to analysis holding time required by the method.

Reporting Notes	The samples met the 40-130% criterion for ES recoveries with the exception of CS 37Cl-2378-TCDD, which fell outside the upper limits. The TEQ was calculated and reported to the client using the I-TEFs and the WHO-2005 TEF, calculated several different ways. We also reported Totals and Detection Limits. These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above. The results presented in this report are representative of the samples as provided to the laboratory. The samples, calibrations and standards for the data presented in this report were analyzed at 2714 Exchange Drive, Wilmington, NC 28405.

General Reporting Notes – Data Qualifiers

The following are general reporting notes that are applicable to all Enthalpy Analytical, Inc.-Wilmington, NC data reports, unless specifically noted otherwise.

General Data Qualifiers / Data Attributes

- B – The analyte was found in the method blank, at a concentration that was at least 10% of the concentration in the sample.
- C – Two or more congeners co-elute. In EDDs, C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group are shown with the number of the lowest IUPAC co-eluter.
- E – The reported concentration exceeds the calibration range (upper point of the calibration curve).
- EMPC – Represents an estimated maximum possible concentration. EMPCs arise in cases where the signal/noise ratio is not sufficient for peak identification (the determined ion-abundance ratio is outside the allowed theoretical range), or where there is a co-eluting interference.
- J – Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve).
- ND – Indicates a non-detect.
- NR – Indicates a value that is not reportable.
- PR – Due to interference, the associated congener is poorly resolved.
- DI – Indicates the presence of a quantitative interference.
- SI – Denotes "Single Ion Mode" and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.
- U – The analyte was not detected. The Estimated Detection Limit (EDL) may be reported for this analyte.
- V – The labeled standard recovery was found to be outside of the method control limits.

DRBC/TMDL Specific Data Qualifiers / Data Attributes

- J – The reported result is an estimate. The value is less than the minimum calibration level but greater than the Estimated Detection Limit (EDL).
- U – The analyte was not detected in the sample at the Estimated Detection Limit (EDL).
- E – The reported concentration is an estimate. The value exceeds the upper calibration range (upper point of the calibration curve).

- D – Dilution Data. Result was obtained from the analysis of a dilution.
- B – Analyte found in the sample and associated method blank.
- Cxx – Co-elutes with the indicated congener, data is reported under the lowest IUPAC congener. 'xx' denotes the IUPAC number with the lowest numerical designated congener.
- NR – Analyte is not reportable because of problems in sample preparation or analysis.
- V – Labeled standard recovery is not within method control limits.
- X – Results from re-injection/repeat/second-column analysis.
- EMPC – Estimated Maximum Possible Concentration. Indicates that a peak is identified but did not meet the method specified ion-abundance ratio.

Lab Identifiers

- AR – Indicates use of the archived portion of the sample extract.
- CU – Indicates a sample that required additional clean-up prior to HRMS injection/processing.
- D – Indicates a dilution of the sample extract. The number that follows the "D" indicates the dilution factor.
- DE – Indicates a dilution performed with the addition of ES (Extraction Standard) solution.
- DUP – Designation for a duplicate sample.
- MS – Designation for a matrix spike.
- MSD – Designation for a matrix spike duplicate.
- RJ – Indicates a reinjection of the sample extract.
- S – Indicates a sample split. The number that follows the "S" indicates the split factor.

Job 0119-719 report due Wednesday Feb 06 2019

ENTHALPY ANALYTICAL

To	Ranjit Clarke	From	Lindsay Boone
Company	Enthalpy-Orange	Customer PO	
Site		Sales Order	SO1033856
Customer Phone	717-771-6900	Date Due QA	Monday, February 04, 2019
Customer Email	ranjit.clarke@enthalpy.com	Results Due	Wednesday, February 06, 2019
Customer Project		Report Due	Wednesday, February 06, 2019

Line	Method	Analytes	Quant	Dept	Objective	Status	
1	WM-017 EPA Method 1613 Solid report:	PCDD/PCDF	2	Wilmington	Level 2 EDDs	Sampled Received ReceivedTemp StorageTemp StorageLocation	01-18-19 09:45 (local time) 01-23-19 15:00 2.4 4 R1

G-4732

0119-719

Enthalpy Analytical
Formerly Associated Labs
1 Park Plaza, Suite 1000
Irvine, CA 92614
Tel: 714.771.6900 Fax: 714.538.1209
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Subcontract Laboratory:

Enthalpy - Wilmington - Su
2714 Exchange Drive
Wilmington, NC 28405
910-212-5866
ATTN: Bryan Vining
PO# N/A

Project: 411366 **Due:**
PM: Ranjit Clarke
Email: ranjit.clarke@enthalpy.com
CC: incomingreports@enthalpy.com
Require: ☑ EDD ☐ EDF ☐ EDT
Report To: ☐ MDL

Note:

Matrix	Sampled	Sample ID	Analysis	Comment
Solid	01/18/19 09:45	SW-1-0.5' (411366-003)	1613B_Dioxin/Furans_OUT	
Solid	01/18/19 09:49	SW-1-2' (411366-004)	1613B_Dioxin/Furans_OUT	

Note:
10 Day TAT

Dioxins/Furans list

Relinquished By	Received By:
Date/Time 1/22/19 1538	Date/Time 1/23/19 1500 2.4° T9
Date/Time	Date/Time

FedEx, Good Condition, On Ice, No Seals

774284332492

1/23/19

411366-01 01/22/19 12:48 RC

This Is The Last Page Of This Report.

Performance Analytical Laboratories, Inc.

ELAP 2960

February 18, 2019

Langan

32 Executive Park, Suite 130

Irvine, CA 92614-4721

Re: DTSC Riverside

Project No. : DTSC Riverside

Work Order: P901017

Dear Brad McCardell

Enclosed are the results of analyses for samples received by our laboratory on 1/16/2019. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

PAL WO#: P901017

Client Name	Langan
Address	515 S Flower St. Suite 2860, Los Angeles, CA 90071
Project Manager	Neil Shukla/ Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH 8015M	Cr VI 7199	Total Metals 6020	VOCs 8260B	SVOCs, PAHs 8270C	Dioxins 1613
1	OS-14-0.5'	1/15/19	0732	S	1G		X	X			
2	OS-14-2'		0735		1G		X	X			
3	OS-14-5'		0739		1G		X	X			
4	OS-3-0.5'		0843		2G / VOAs	X	X	X	X	X	X
5	OS-3-2'		0851		2G / VOAs	X	X	X	X	X	X
6	BP-1		0900		1G		X	X			
7	OS-13-0.5'		0950		1G		X	X			
8	OS-13-2'		0952		1G		X	X			
9	OS-13-5'		0954		1G		X	X			
10	TL-1-0.5'	↓	1138	↓	1G		X	X			

REQUESTED ANALYSIS

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	**STD** 5 day	**RUSH** 24	48	72
EDD Required - Circle one:	Yes	No		
Type of EDD:				
Reciept Temp./ Initials: (Temp recorded is not corrected)	3.5 °C MV			

RELINQUISHED BY
Signature:
Print: Kathleen Lo
Company: Langan
DATE: 1/16/19
TIME: 0955

RECEIVED BY
Signature:
Print: M Valenzuela
Company: PAL
DATE: 1/16/19
TIME: 955

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

*Matrix Codes: (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
Container Code: (V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
Preservation Code: (H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

G-4736

Performance Analytical Laboratories, Inc.
2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 2 of 2

PAL WO#: P901017

Client Name	Langan
Address	515 S Flower St. Suite 2860 Los Angeles, CA 90071
Project Manager	Neil Shukla/ Brad McCardell
Email	nshukla@langan.com
Phone	714 616 0163
Project Name/Number	721013502
P.O. Number	
Sampled By	Kathleen Lo

	Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container** Quantity/ Type/ Preservation	TPH	CrVI 7199	Total Metals 6020	VOC	SVOC	8	REQUESTED ANALYSIS
1	TL-1-2'	1/15/19	1142	S	1G		X	X				
2	TL-1-5'	↓	1148	↓	1G		X	X				
3	TL-2-0.5'		1452		1G		X	X				
4	TL-2-2'		1455		1G		X	X				
5	TL-2-5'		1458		1G		X	X				
6	TL-3-0.5'		1620		1G		X	X				
7	TL-3-2'		1625		1G		X	X				
8	TL-3-5'	↓	1630	↓	1G		X	X				
9												
10												

G-4737

PAL Containers used:	(Yes)	No	
Type of Ice used:	(Wet)	Blue	None
Sample Preservative:	Yes	(No)	

TAT Needed (circle one)	STD 5 day	RUSH 24	48	72
EDD Required - Circle one:	Yes	No		
Type of EDD:				
Reciept Temp./ Initials: (Temp recorded is not corrected)				

RELINQUISHED BY
Signature:
Print: Kathleen Lo
Company: Langan
DATE: 1/16/19
TIME: 0955

RECEIVED BY
Signature:
Print: M Valenzuela
Company: PAL
DATE: 1/16/19
TIME: 955

RELINQUISHED BY
Signature:
Print:
Company:
DATE:
TIME:

RECEIVED BY
Signature:
Print:
Company:
DATE:
TIME:

***Matrix Codes:** (**S** = Soils); (**P** = Product); (**SED** = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (**W** = Other Water); (O = Other)
****Container Code:** (**V** = VOA); (**P** = Poly); (**G** = Glass); (**L** = Sleeve); (**J** = Jar)
****Preservation Code:** (**H** = HCl); (**N** = HNO3); (**S** = H2SO4); (**O** = NaOH); (**Z** = Zinc Acetate)

Performance Analytical Laboratories, Inc.

SAMPLE RECEIPT FORM

WORK ORDER ID: P901017

Cooler 1 OF 1

Client Langan

Date Received: 1/16/19

Courier ○ CLIENT ⊗ PALI ○ OTHER _____ ○ FEDEX ○ UPS Tracking # _____

TEMPERATURE: Criteria 0.0°C - 6.0°C

Cooler ID	Temperature Reading	Temperature w/o CF (°C)	Correction Factor (CF) (°C)	Temperature with CF (°C)	Thermometer ID
	○ Blank ⊗ Sample	3.5	0.0	3.5	TM-12

⊗ WET ICE ○ BLUE ICE ○ AMBIENT ○ OTHER _____

○ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

CUSTODY SEALS

Cooler Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

Sample Seal ○ Present and Intact ○ Present and **NOT** Intact ○ Seals signed and dated ⊗ Not Present

CLIENT COC

⊗ INCLUDED ○ NOT INCLUDED

⊗ Complete ○ Incomplete, See Notes/ Discrepancy Form

SAMPLE MATRIX

⊗ SOLID ○ LIQUID ○ AIR ○ OTHER _____

SAMPLE CONDITION

	YES	NO	N/A
All sample containers received intact and in good condition	X		
All samples listed on COC(s) are present	X		
All sample info on containers are consistent with sample info on COC(s)	X		
Correct containers for analyses requested	X		
Sufficient volume for analyses requested	X		
Proper preservation chemical(s) noted on COC and/or sample container	X		
All samples received within method holding time	X		
Volatile analysis containers free of headspace larger than 6mm			X

NOTES

Initials	Date	Initials	Date
MV	1/16/19		

Performance Analytical Laboratories, Inc.

411122

SUBCONTRACT CHAIN OF CUSTODY

Work Order ID: P901017

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Enthalpy
806 N. Batavia Street
Orange, CA 92868
Phone :(714) 771-9920
Fax: .

Analysis	Due	Comments
Sample ID: OS-3-0.5' **Matrix:Solid**	**Sampled: 01/15/2019 08:43**	
S_Dioxin (17 Congeners)	01/23/2019 15:00	
S_PAH 8270 SIM	01/23/2019 15:00	
S_SVOA 8270C	01/23/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (F)		
Sample ID: OS-3-2' **Matrix:Solid**	**Sampled: 01/15/2019 08:51**	
S_Dioxin (17 Congeners)	01/23/2019 15:00	
S_PAH 8270 SIM	01/23/2019 15:00	
S_SVOA 8270C	01/23/2019 15:00	
Containers Supplied:		
Glass Jar, 4 oz (F)		

Released By	Date	Time	Received By	Date	Time
	1/16/19	1310	Kevin Nguyen (Enthalpy)	1/16/19	1310
	1/16/19	1500		1/16/19	1530

G-4739

38 kg

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: Performance Analytical Project: _____

Date Received: 1/16/19 Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2) Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 7.4 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☑ Ice ☐ Ice Packs ☐ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 3.8 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✓		
Are sample IDs present?	✓		
Are sampling dates & times present?	✓		
Is a relinquished signature present?	✓		
Are the tests required clearly indicated on the COC?	✓		
Are custody seals present?		✓	
If custody seals are present, were they intact?			✓
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✓
Did all samples arrive intact? If no, indicate in Section 4 below.	✓		
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were the samples collected in the correct containers for the required tests?	✓		
Are the containers labeled with the correct preservatives?			✓
Is there headspace in the VOA vials greater than 5-6 mm in diameter?			✓
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 5 Explanations/Comments

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☐ Email (email sent to/on): _____ / _____

Project Manager's response:

Completed By: _____ Date: 1/16/17

Enthalpy Analytical, LLC
931 W. Barkley Ave - Orange, CA 92868
Tel: (714)771-6900 Fax: (714)538-1209
www.enthalpy.com
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Client: Performance Analytical Laboratories, Inc.
Address: 2702 E. Willow Street
Signal Hill, CA 90755

Attn: Marycarol Valenzuela

Comments: P901017

Supplemental Report 1 - Dioxins/Furans results only.

Lab Request: 411122
Report Date: 02/01/2019
Date Received: 01/16/2019
Client ID: 15509

This laboratory request covers the following listed samples which were analyzed for the parameters indicated on the attached Analytical Result Report. All analyses were conducted using the appropriate methods. Methods accredited by NELAC are indicated on the report. This cover letter is an integral part of the final report.

Sample #	Client Sample ID
411122-001	OS-3-0.5'
411122-002	OS-3-2'

Thank you for the opportunity to be of service to your company. Please feel free to call if there are any questions regarding this report or if we can be of further service.

Report Review performed by: Ranjit Clarke, Project Manager

NOTE: Unless notified in writing, all samples will be discarded by appropriate disposal protocol 45 days from date received.

The reports of the Enthalpy Analytical, Inc. are confidential property of our clients and may not be reproduced or used for publication in part or in full without our written permission. This is for the mutual protection of the public, our clients, and ourselves.

Matrix:	Solid	**Client:**	Performance Analytical Laboratories, Inc.	**Collector:**	Client
Sampled:	01/15/2019 08:43	**Site:**			
Sample #:	**411122-001**	**Client Sample #:**	OS-3-0.5'	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 1613B	Prep Method: See Attached					QCBatchID:		
See Attached		1						

Matrix:	Solid	**Client:**	Performance Analytical Laboratories, Inc.	**Collector:**	Client
Sampled:	01/15/2019 08:51	**Site:**			
Sample #:	**411122-002**	**Client Sample #:**	OS-3-2'	**Sample Type:**	

Analyte	Result	DF	RDL	Units	Prepared	Analyzed	By	Notes
Method: EPA 1613B	Prep Method: See Attached					QCBatchID:		
See Attached		1						

Data Qualifiers and Definitions

Qualifiers

A	See Report Comments.
B	Analyte was present in an associated method blank.
B1	Analyte was present in a sample and associated method blank greater than MDL but less than RDL.
BQ1	No valid test replicates. Sample Toxicity is possible. Best result was reported.
BQ2	No valid test replicates.
BQ3	No valid test replicates. Final DO is less than 1.0 mg/L. Result may be greater.
BQ4	Minor Dissolved Oxygen loss was observed in the blank water check, however, the LCS was within criteria, validating the batch.
BQ5	Minor Dissolved Oxygen loss was observed in the blank water check.
C	Possible laboratory contamination.
D	RPD was not within control limits. The sample data was reported without further clarification.
D1	Lesser amount of sample was used due to insufficient amount of sample supplied.
D2	Reporting limit is elevated due to sample matrix. Target analyte was not detected above the elevated reporting limit.
D3	Insufficient sample was supplied for TCLP. Client was notified. TCLP was performed per the Client's instructions.
DW	Sample result is calculated on a dry weigh basis.
E	Concentration is estimated because it exceeds the quantification limits of the method.
I	The sample was read outside of the method required incubation period.
IR	Inconclusive Result. Legionella is present, however, there is possible non-specific agglutination preventing specific identification.
J	Reported value is estimated
L	The laboratory control sample (LCS) or laboratory control sample duplicate (LCSD) was out of control limits. Associated sample data was reported with qualifier.
L2	LCS did not meet recovery criteria, however, the MS and/or MSD met LCS recovery criteria, validating the batch.
M	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits due to matrix interference. The associated LCS and/or LCSD was within control limits and the sample data was reported without further clarification.
M1	The matrix spike (MS) or matrix spike duplicate (MSD) is not within control limits due to matrix interference.
M2	The matrix spike (MS) or matrix spike duplicate (MSD) was not within control limits. The associated LCS and/or LCSD was not within control limits. Sample result is estimated.
N1	Sample chromatography does not match the specified TPH standard pattern.
NC	The analyte concentration in the sample exceeded the spike level by a factor of four or greater, spike recovery and limits do not apply.
P	Sample was received without proper preservation according to EPA guidelines.
P1	Temperature of sample storage refrigerator was out of acceptance limits.
P2	The sample was preserved within 24 hours of collection in accordance with EPA 218.6.
P3	Per Client request, sample was composited for volatile analysis. Sample compositing for volatile analysis is not recommended due to potential loss of target analytes. Results may be biased low.
Q1	Analyte Calibration Verification exceeds criteria. The result is estimated.
Q2	Analyte calibration was not verified and the result was estimated.
Q3	Analyte initial calibration was not available or exceeds criteria. The result was estimated.
S	The surrogate recovery was out of control limits due to matrix interference. The associated method blank surrogate recovery was within control limits and the sample data was reported without further clarification.
S1	The associated surrogate recovery was out of control limits; result is estimated.
S2	The surrogate was diluted out due to the presence of high concentrations of target and/or non-target compounds. Surrogate recoveries in the associated batch QC met recovery criteria.
S3	Internal Standard did not meet recovery limits. Analyte concentration is estimated.
T	Sample was extracted/analyzed past the holding time.
T1	Reanalysis was reported past hold time due to failing replicates in the original analysis (BOD only).
T2	Sample was analyzed ASAP but received and analyzed past the 15 minute holding time.
T3	Sample received and analyzed out of hold time per client's request.
T4	Sample was analyzed out of hold time per client's request.
T5	Reanalysis was reported past hold time. The original analysis was within hold time, but not reportable.
T6	Hold time is indeterminable due to unspecified sampling time.
T7	Sample was analyzed past hold time due to insufficient time remaining at time of receipt.

Definitions

DF	Dilution Factor
MDL	Method Detection Limit. Result is reported ND when it is less than or equal to MDL.
ND	Analyte was not detected or was less than the detection limit.
NR	Not Reported. See Report Comments.
RDL	Reporting Detection Limit
TIC	Tentatively Identified Compounds

Enthalpy - Orange

1 Park Plaza, Suite 1000
Irvine, CA 92614

Samples Received: 1/18/19
Client Project # 411122

Analytical Report
(0119-716)

Method 8290
PCDD/PCDF

Enthalpy Analytical, LLC – Ultratrace
Phone: (910) 212-5858 / www.enthalpy.com
2714 Exchange Drive, Wilmington, NC 28405

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains 19 pages.

Juanica L. Thomas

QA Review Performed by: Juanica L. Thomas

Report Issued Date: 2/1/19

ENTHALPY ANALYTICAL

ENTHALPY ANALYTICAL

Summary of Results: Totals

Enthalpy Ultratrace Batch # 10195

Method 8290

Analyte	Method Blank pg/g	OS-3-0.5' (411122-001) pg/g	OS-3-2' (411122-002) pg/g
Totals			
TCDDs	(0.0736)	(0.0577)	(0.0599)
PeCDDs	(0.0893)	(0.0787)	(0.0801)
HxCDDs	(0.0547)	0.336	(0.0475)
HpCDDs	(0.0614)	5.35	(0.0540)
OCDD	(0.0676)	18.9	1.92
TCDFs	(0.0265)	(0.0286)	(0.0208)
PeCDFs	(0.0521)	1.35	(0.0417)
HxCDFs	(0.0326)	1.92	(0.0249)
HpCDFs	(0.0228)	1.65	(0.0267)
OCDF	(0.0497)	0.492	(0.039)

ND = (DL) EMPC = [ ]

ENTHALPY ANALYTICAL

OS-3-0.5' (411122-001) — Detailed Results - Method 8290

Client Details

Client Sample ID: OS-3-0.5' (411122-001) **Client Name:** Enthalpy-Orange

Client Project ID: 411122 **Sample Collection Date:** 15-Jan-19 **RRFs:** CS3 AB

Lab/Sample Details

Lab Job #:	0119-716	Matrix:	Solid	Date Received:	18-Jan-19
Lab Sample ID:	0119-716_10195_001	Weight/Volume:	11.4	Date Extracted:	24-Jan-19
QC Batch #:	10195	Split Factor:	1	Date Analyzed:	29-Jan-19
Dilution:	-			Time Analyzed:	20:25:04

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0577		U	ES 2,3,7,8-TCDD	93.9	
1,2,3,7,8-PeCDD	ND	0.0787		U	ES 1,2,3,7,8-PeCDD	91.9	
1,2,3,4,7,8-HxCDD	ND	0.0396		U	ES 1,2,3,4,7,8-HxCDD	81.0	
1,2,3,6,7,8-HxCDD	ND	0.0403		U	ES 1,2,3,6,7,8-HxCDD	84.2	
1,2,3,7,8,9-HxCDD	ND	0.0387		U	ES 1,2,3,7,8,9-HxCDD	81.4	
1,2,3,4,6,7,8-HpCDD	2.10				ES 1,2,3,4,6,7,8-HpCDD	79.8	
OCDD	18.9				ES OCDD	82.4	
2,3,7,8-TCDF	ND	0.0286		U	ES 2,3,7,8-TCDF	88.3	
1,2,3,7,8-PeCDF	ND	0.0559		U	ES 1,2,3,7,8-PeCDF	95.1	
2,3,4,7,8-PeCDF	ND	0.0594		U	ES 2,3,4,7,8-PeCDF	90.5	
1,2,3,4,7,8-HxCDF	ND	0.0252		U	ES 1,2,3,4,7,8-HxCDF	79.2	
1,2,3,6,7,8-HxCDF	ND	0.0248		U	ES 1,2,3,6,7,8-HxCDF	78.1	
2,3,4,6,7,8-HxCDF	ND	0.0263		U	ES 2,3,4,6,7,8-HxCDF	79.1	
1,2,3,7,8,9-HxCDF	ND	0.0290		U	ES 1,2,3,7,8,9-HxCDF	83.3	
1,2,3,4,6,7,8-HpCDF	0.273			J	ES 1,2,3,4,6,7,8-HpCDF	81.3	
1,2,3,4,7,8,9-HpCDF	ND	0.0254		U	ES 1,2,3,4,7,8,9-HpCDF	81.0	
OCDF	0.492				ES OCDF	83.0	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	149	V
Total TCDDs	ND	0.0577	ND	U	CS 12347-PeCDD	98.5	
Total PeCDDs	ND	0.0787	ND	U	CS 12346-PeCDF	98.0	
Total HxCDDs	0.336		0.336		CS 123469-HxCDF	94.4	
Total HpCDDs	5.35		5.35		CS 1234689-HpCDF	89.2	
					AS 1368-TCDD	98.4	
Total TCDFs	ND	0.0286	ND	U	AS 1368-TCDF	89.1	
Total PeCDFs	ND	0.0294	1.35				
Total HxCDFs	1.19		1.92				
Total HpCDFs	1.65		1.65				
Total PCDD/PCDFs	**27.9**		**30.0**				

ENTHALPY ANALYTICAL

OS-3-2' (411122-002) — Detailed Results - Method 8290

Client Details

Client Sample ID: OS-3-2' (411122-002) **Client Name:** Enthalpy-Orange

Client Project ID: 411122 **Sample Collection Date:** 15-Jan-19 **RRFs:** CS3 AB

Lab/Sample Details

Lab Job #:	0119-716	Matrix:	Solid	Date Received:	18-Jan-19
Lab Sample ID:	0119-716_10195_002	Weight/Volume:	11.7	Date Extracted:	24-Jan-19
QC Batch #:	10195	Split Factor:	1	Date Analyzed:	29-Jan-19
Dilution:	-			Time Analyzed:	21:13:27

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0599		U	ES 2,3,7,8-TCDD	93.4	
1,2,3,7,8-PeCDD	ND	0.0801		U	ES 1,2,3,7,8-PeCDD	90.2	
1,2,3,4,7,8-HxCDD	ND	0.0463		U	ES 1,2,3,4,7,8-HxCDD	83.1	
1,2,3,6,7,8-HxCDD	ND	0.0491		U	ES 1,2,3,6,7,8-HxCDD	79.8	
1,2,3,7,8,9-HxCDD	ND	0.0430		U	ES 1,2,3,7,8,9-HxCDD	78.9	
1,2,3,4,6,7,8-HpCDD	ND	0.0540		U	ES 1,2,3,4,6,7,8-HpCDD	79.1	
OCDD	1.92				ES OCDD	80.4	
2,3,7,8-TCDF	ND	0.0208		U	ES 2,3,7,8-TCDF	86.5	
1,2,3,7,8-PeCDF	ND	0.0224		U	ES 1,2,3,7,8-PeCDF	92.3	
2,3,4,7,8-PeCDF	ND	0.0243		U	ES 2,3,4,7,8-PeCDF	89.4	
1,2,3,4,7,8-HxCDF	ND	0.0235		U	ES 1,2,3,4,7,8-HxCDF	79.2	
1,2,3,6,7,8-HxCDF	ND	0.0234		U	ES 1,2,3,6,7,8-HxCDF	79.3	
2,3,4,6,7,8-HxCDF	ND	0.0250		U	ES 2,3,4,6,7,8-HxCDF	81.7	
1,2,3,7,8,9-HxCDF	ND	0.0282		U	ES 1,2,3,7,8,9-HxCDF	82.8	
1,2,3,4,6,7,8-HpCDF	ND	0.0251		U	ES 1,2,3,4,6,7,8-HpCDF	80.7	
1,2,3,4,7,8,9-HpCDF	ND	0.0320		U	ES 1,2,3,4,7,8,9-HpCDF	80.7	
OCDF	ND	0.0390		U	ES OCDF	81.8	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	149	V
Total TCDDs	ND	0.0599	ND	U	CS 12347-PeCDD	104	
Total PeCDDs	ND	0.0801	ND	U	CS 12346-PeCDF	103	
Total HxCDDs	ND	0.0475	ND	U	CS 123469-HxCDF	103	
Total HpCDDs	ND	0.0540	ND	U	CS 1234689-HpCDF	94.8	
					AS 1368-TCDD	98.5	
Total TCDFs	ND	0.0208	ND	U	AS 1368-TCDF	93.8	
Total PeCDFs	ND	0.0417	ND	U			
Total HxCDFs	ND	0.0249	ND	U			
Total HpCDFs	ND	0.0267	ND	U			
Total PCDD/PCDFs	**1.92**		**1.92**				

Continuing Calibration — PCDD/Fs

	CS3-A	CS3-B
Concentration (pg/µL)	10	10
Standard ID	SIDAA19	SIDAA19
Acquisition Date	29-Jan-19	30-Jan-19
Acquisition Time	17:11:42	0:27:00

Analyte	RRF	RRF	ICAL RRFs	PD (CS3-A v. ICAL)	PD (CS3-B v. ICAL)	Average RRF	RPD (CS3s)
2,3,7,8-TCDD	1.10	1.08	1.09	0.9	-0.9	1.09	1.8
1,2,3,7,8-PeCDD	0.99	0.95	1.02	-2.9	-6.9	0.97	4.1
1,2,3,4,7,8-HxCDD	1.02	1.06	1.09	-6.4	-2.8	1.04	3.8
1,2,3,6,7,8-HxCDD	1.12	1.04	1.09	2.8	-4.6	1.08	7.4
1,2,3,7,8,9-HxCDD	0.98	0.98	1.04	-5.8	-5.8	0.98	0.0
1,2,3,4,6,7,8-HpCDD	0.95	0.96	1.03	-7.8	-6.8	0.96	1.0
OCDD	1.08	1.03	1.12	-3.6	-8.0	1.06	4.7
2,3,7,8-TCDF	0.97	0.99	1.00	-3.0	-1.0	0.98	2.0
1,2,3,7,8-PeCDF	0.98	0.97	1.00	-2.0	-3.0	0.98	1.0
2,3,4,7,8-PeCDF	0.98	0.96	1.00	-2.0	-4.0	0.97	2.1
1,2,3,4,7,8-HxCDF	1.26	1.29	1.29	-2.3	0.0	1.28	2.4
1,2,3,6,7,8-HxCDF	1.18	1.16	1.19	-0.8	-2.5	1.17	1.7
2,3,4,6,7,8-HxCDF	1.18	1.15	1.22	-3.3	-5.7	1.17	2.6
1,2,3,7,8,9-HxCDF	1.16	1.16	1.19	-2.5	-2.5	1.16	0.0
1,2,3,4,6,7,8-HpCDF	1.36	1.41	1.43	-4.9	-1.4	1.39	3.6
1,2,3,4,7,8,9-HpCDF	1.34	1.40	1.42	-5.6	-1.4	1.37	4.4
OCDF	1.05	1.04	1.07	-1.9	-2.8	1.05	1.0
ES 2,3,7,8-TCDD	0.99	0.95	1.02	-2.9	-6.9	0.97	4.1
ES 1,2,3,7,8-PeCDD	0.85	0.78	0.80	6.2	-2.5	0.82	8.6
ES 1,2,3,4,7,8-HxCDD	1.00	1.00	1.05	-4.8	-4.8	1.00	0.0
ES 1,2,3,6,7,8-HxCDD	0.91	0.99	1.02	-10.8	-2.9	0.95	8.4
ES 1,2,3,7,8,9-HxCDD	1.09	1.08	1.14	-4.4	-5.3	1.09	0.9
ES 1,2,3,4,6,7,8-HpCDD	0.98	0.97	0.92	6.5	5.4	0.98	1.0
ES OCDD	0.76	0.75	0.66	15.2	13.6	0.76	1.3
ES 2,3,7,8-TCDF	1.01	0.99	1.03	-1.9	-3.9	1.00	2.0
ES 1,2,3,7,8-PeCDF	0.88	0.81	0.86	2.3	-5.8	0.85	8.3
ES 2,3,4,7,8-PeCDF	0.87	0.79	0.84	3.6	-6.0	0.83	9.6
ES 1,2,3,4,7,8-HxCDF	1.14	1.15	1.30	-12.3	-11.5	1.15	0.9
ES 1,2,3,6,7,8-HxCDF	1.28	1.34	1.47	-12.9	-8.8	1.31	4.6
ES 2,3,4,6,7,8-HxCDF	1.19	1.24	1.36	-12.5	-8.8	1.22	4.1
ES 1,2,3,7,8,9-HxCDF	1.09	1.10	1.20	-9.2	-8.3	1.10	0.9
ES 1,2,3,4,6,7,8-HpCDF	0.99	0.94	1.00	-1.0	-6.0	0.97	5.2
ES 1,2,3,4,7,8,9-HpCDF	0.90	0.83	0.85	5.9	-2.4	0.87	8.1
ES OCDF	0.97	0.91	0.87	11.5	4.6	0.94	6.4

Continuing Calibration — PCDD/Fs

	CS3-A	CS3-B
Concentration (pg/µL)	10	10
Standard ID	SIDAA19	SIDAA19
Acquisition Date	29-Jan-19	30-Jan-19
Acquisition Time	17:11:42	0:27:00

Analyte	RRF	RRF	ICAL RRFs	PD (CS3-A v. ICAL)	PD (CS3-B v. ICAL)	Average RRF	RPD (CS3s)
CS 37Cl-2378-TCDD	1.14	1.16	1.15	-0.9	0.9	1.15	1.7
CS 12347-PeCDD	0.82	0.73	0.75	9.3	-2.7	0.78	11.6
CS 12346-PeCDF	0.91	0.85	0.88	3.4	-3.4	0.88	6.8
CS 123469-HxCDF	1.16	1.21	1.31	-11.5	-7.6	1.19	4.2
CS 1234689-HpCDF	0.90	0.89	0.92	-2.2	-3.3	0.90	1.1
SS 37Cl-2378-TCDD	1.16	1.22	1.12	3.6	8.9	1.19	5.0
SS 12347-PeCDD	0.97	0.94	0.94	3.2	0.0	0.96	3.1
SS 12346-PeCDF	1.03	1.05	1.02	1.0	2.9	1.04	1.9
SS 123469-HxCDF	0.97	0.98	0.96	1.0	2.1	0.98	1.0
SS 1234689-HpCDF	0.90	0.94	0.92	-2.2	2.2	0.92	4.3
AS 1368-TCDD	1.05	1.05	1.10	-4.5	-4.5	1.05	0.0
AS 1368-TCDF	1.12	1.15	1.18	-5.1	-2.5	1.14	2.6
FS 1278-TCDD	-	-	1.11	-	-	-	-
FS 12478-PeCDD	-	-	1.05	-	-	-	-
FS 123468-HxCDD	-	-	1.14	-	-	-	-
FS 1234679-HpCDD	-	-	1.17	-	-	-	-
TS 1378-TCDD	-	-	1.04	-	-	-	-
Analyte	Area	Area					
JS 1234-TCDD	753768	737318					
JS 1234-TCDF	1056327	1023110					
JS 123467-HxCDD	584861	472686					

ENTHALPY ANALYTICAL

Method Blank

Detailed Results - Method 8290

RRFs: CS3 AB

Lab/Sample Details

		Matrix:	Solid	Date Received:	N/A
Lab Sample ID:	MB1_10195_DF	Weight/Volume:	10	Date Extracted:	24-Jan-19
QC Batch #:	10195	Split Factor:	1	Date Analyzed:	29-Jan-19
Dilution:	-			Time Analyzed:	19:36:39

Analyte	Conc. (pg/g)	DLpg/g	EMPC pg/g	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	ND	0.0736		U	ES 2,3,7,8-TCDD	83.3	
1,2,3,7,8-PeCDD	ND	0.0893		U	ES 1,2,3,7,8-PeCDD	83.0	
1,2,3,4,7,8-HxCDD	ND	0.0549		U	ES 1,2,3,4,7,8-HxCDD	74.6	
1,2,3,6,7,8-HxCDD	ND	0.0549		U	ES 1,2,3,6,7,8-HxCDD	76.4	
1,2,3,7,8,9-HxCDD	ND	0.0552		U	ES 1,2,3,7,8,9-HxCDD	72.4	
1,2,3,4,6,7,8-HpCDD	ND	0.0614		U	ES 1,2,3,4,6,7,8-HpCDD	72.9	
OCDD	ND	0.0676		U	ES OCDD	74.0	
2,3,7,8-TCDF	ND	0.0265		U	ES 2,3,7,8-TCDF	81.7	
1,2,3,7,8-PeCDF	ND	0.0235		U	ES 1,2,3,7,8-PeCDF	84.7	
2,3,4,7,8-PeCDF	ND	0.0232		U	ES 2,3,4,7,8-PeCDF	80.8	
1,2,3,4,7,8-HxCDF	ND	0.0296		U	ES 1,2,3,4,7,8-HxCDF	69.4	
1,2,3,6,7,8-HxCDF	ND	0.0307		U	ES 1,2,3,6,7,8-HxCDF	70.7	
2,3,4,6,7,8-HxCDF	ND	0.0323		U	ES 2,3,4,6,7,8-HxCDF	71.7	
1,2,3,7,8,9-HxCDF	ND	0.0354		U	ES 1,2,3,7,8,9-HxCDF	76.0	
1,2,3,4,6,7,8-HpCDF	ND	0.0214		U	ES 1,2,3,4,6,7,8-HpCDF	73.1	
1,2,3,4,7,8,9-HpCDF	ND	0.0294		U	ES 1,2,3,4,7,8,9-HpCDF	72.6	
OCDF	ND	0.0497		U	ES OCDF	75.2	
Totals	**Conc. pg/g**	**DLpg/g**	**EMPC pg/g**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	147	V
Total TCDDs	ND	0.0736	ND	U	CS 12347-PeCDD	99.8	
Total PeCDDs	ND	0.0893	ND	U	CS 12346-PeCDF	99.6	
Total HxCDDs	ND	0.0547	ND	U	CS 123469-HxCDF	97.6	
Total HpCDDs	ND	0.0614	ND	U	CS 1234689-HpCDF	90.7	
					AS 1368-TCDD	98.1	
Total TCDFs	ND	0.0265	ND	U	AS 1368-TCDF	92.1	
Total PeCDFs	ND	0.0521	ND	U			
Total HxCDFs	ND	0.0326	ND	U			
Total HpCDFs	ND	0.0228	ND	U			
Total PCDD/PCDFs	**ND**		**ND**				

ENTHALPY ANALYTICAL

OPR	Detailed Results - Method 8290

RRFs: CS3 AB

Lab/Sample Details

		Matrix:	Solid	Date Received:	N/A
Lab Sample ID:	OPR_10195_DF	Final Vol. (uL)	20	Date Extracted:	24-Jan-19
QC Batch #:	10195	Split Factor:	1	Date Analyzed:	29-Jan-19
Dilution:	-			Time Analyzed:	17:59:52

Analyte	Conc. (pg)	DL (pg)	EMPC (pg)	Qualifiers	Standard	ES Recoveries	Qualifiers
2,3,7,8-TCDD	10.2				ES 2,3,7,8-TCDD	75.3	
1,2,3,7,8-PeCDD	50.2				ES 1,2,3,7,8-PeCDD	79.1	
1,2,3,4,7,8-HxCDD	49.8				ES 1,2,3,4,7,8-HxCDD	72.0	
1,2,3,6,7,8-HxCDD	48.4				ES 1,2,3,6,7,8-HxCDD	73.4	
1,2,3,7,8,9-HxCDD	48.6				ES 1,2,3,7,8,9-HxCDD	70.4	
1,2,3,4,6,7,8-HpCDD	50.9				ES 1,2,3,4,6,7,8-HpCDD	67.0	
OCDD	104				ES OCDD	68.9	
2,3,7,8-TCDF	10.1				ES 2,3,7,8-TCDF	74.9	
1,2,3,7,8-PeCDF	49.7				ES 1,2,3,7,8-PeCDF	78.6	
2,3,4,7,8-PeCDF	50.5				ES 2,3,4,7,8-PeCDF	74.9	
1,2,3,4,7,8-HxCDF	49.6				ES 1,2,3,4,7,8-HxCDF	67.1	
1,2,3,6,7,8-HxCDF	49.8				ES 1,2,3,6,7,8-HxCDF	64.1	
2,3,4,6,7,8-HxCDF	50.1				ES 2,3,4,6,7,8-HxCDF	71.1	
1,2,3,7,8,9-HxCDF	49.8				ES 1,2,3,7,8,9-HxCDF	71.7	
1,2,3,4,6,7,8-HpCDF	49.7				ES 1,2,3,4,6,7,8-HpCDF	70.8	
1,2,3,4,7,8,9-HpCDF	51.0				ES 1,2,3,4,7,8,9-HpCDF	68.1	
OCDF	97.1				ES OCDF	73.3	
Totals	**Conc. (pg)**	**DL (pg)**	**EMPC (pg)**		**Standard**	**CS/AS Recoveries**	
					CS 37Cl-2378-TCDD	145	V
Total TCDDs	10.2		10.2		CS 12347-PeCDD	103	
Total PeCDDs	50.2		50.2		CS 12346-PeCDF	101	
Total HxCDDs	147		147		CS 123469-HxCDF	101	
Total HpCDDs	50.9		50.9		CS 1234689-HpCDF	91.7	
					AS 1368-TCDD	101	
Total TCDFs	10.1		10.1		AS 1368-TCDF	92.5	
Total PeCDFs	100		100				
Total HxCDFs	199		199				
Total HpCDFs	101		101				
Total PCDD/PCDFs	**870**		**870**				

OPR Demonstration Data

Batch ID#: 10195

Analyte	Conc. (pg)	Lower Limit	Upper Limit	Acceptable?	Standard	ES Recoveries	Lower Limit	Upper Limit	Acceptable?
2,3,7,8-TCDD	10.2	6.7	15.8	Y	ES 2,3,7,8-TCDD	75	20	175	Y
1,2,3,7,8-PeCDD	50.2	35	71	Y	ES 1,2,3,7,8-PeCDD	79	21	227	Y
1,2,3,4,7,8-HxCDD	49.8	35	82	Y	ES 1,2,3,4,7,8-HxCDD	72	21	193	Y
1,2,3,6,7,8-HxCDD	48.4	38	67	Y	ES 1,2,3,6,7,8-HxCDD	73	25	163	Y
1,2,3,7,8,9-HxCDD	48.6	32	81	Y	ES 1,2,3,7,8,9-HxCDD	70	N/A	N/A	N/A
1,2,3,4,6,7,8-HpCDD	50.9	35	70	Y	ES 1,2,3,4,6,7,8-HpCDD	67	26	166	Y
OCDD	104.0	78	144	Y	ES OCDD	138	26	397	Y
2,3,7,8-TCDF	10.1	7.5	15.8	Y	ES 2,3,7,8-TCDF	75	22	152	Y
1,2,3,7,8-PeCDF	49.7	40	67	Y	ES 1,2,3,7,8-PeCDF	79	21	192	Y
2,3,4,7,8-PeCDF	50.5	34	80	Y	ES 2,3,4,7,8-PeCDF	75	13	328	Y
1,2,3,4,7,8-HxCDF	49.6	36	67	Y	ES 1,2,3,4,7,8-HxCDF	67	19	202	Y
1,2,3,6,7,8-HxCDF	49.8	42	65	Y	ES 1,2,3,6,7,8-HxCDF	64	21	159	Y
2,3,4,6,7,8-HxCDF	50.1	39	65	Y	ES 2,3,4,6,7,8-HxCDF	71	17	205	Y
1,2,3,7,8,9-HxCDF	49.8	35	78	Y	ES 1,2,3,7,8,9-HxCDF	72	22	176	Y
1,2,3,4,6,7,8-HpCDF	49.7	41	61	Y	ES 1,2,3,4,6,7,8-HpCDF	71	21	158	Y
1,2,3,4,7,8,9-HpCDF	51.0	39	69	Y	ES 1,2,3,4,7,8,9-HpCDF	68	20	186	Y
OCDF	97.1	63	170	Y	ES OCDF	147	N/A	N/A	N/A
					CS 2,3,7,8 TCDD	15	3.1	19.1	Y

ENTHALPY ANALYTICAL

Summary of Results: I-TEF TEQ

Enthalpy Ultratrace Batch # 10195

Method 8290

Analyte	Method Blank pg/g	OS-3-0.5' (411122-001) pg/g	OS-3-2' (411122-002) pg/g
2,3,7,8-TCDD	(0.0736)	(0.0577)	(0.0599)
1,2,3,7,8-PeCDD	(0.0893)	(0.0787)	(0.0801)
1,2,3,4,7,8-HxCDD	(0.0549)	(0.0396)	(0.0463)
1,2,3,6,7,8-HxCDD	(0.0549)	(0.0403)	(0.0491)
1,2,3,7,8,9-HxCDD	(0.0552)	(0.0387)	(0.043)
1,2,3,4,6,7,8-HpCDD	(0.0614)	2.1	(0.054)
OCDD	(0.0676)	18.9	1.92
2,3,7,8-TCDF	(0.0265)	(0.0286)	(0.0208)
1,2,3,7,8-PeCDF	(0.0235)	(0.0559)	(0.0224)
2,3,4,7,8-PeCDF	(0.0232)	(0.0594)	(0.0243)
1,2,3,4,7,8-HxCDF	(0.0296)	(0.0252)	(0.0235)
1,2,3,6,7,8-HxCDF	(0.0307)	(0.0248)	(0.0234)
2,3,4,6,7,8-HxCDF	(0.0323)	(0.0263)	(0.025)
1,2,3,7,8,9-HxCDF	(0.0354)	(0.029)	(0.0282)
1,2,3,4,6,7,8-HpCDF	(0.0214)	0.273	(0.0251)
1,2,3,4,7,8,9-HpCDF	(0.0294)	(0.0254)	(0.032)
OCDF	(0.0497)	0.492	(0.039)
ND = (DL) EMPC = [ ]			
ITEF TEQ (ND=0; EMPC=0)	0.00	0.0431	0.00192
ITEF TEQ (ND=0; EMPC=EMPC)	0.00	0.0431	0.00192
ITEF TEQ (ND=DL/2; EMPC=0)	0.0821	0.121	0.0721
ITEF TEQ (ND=DL/2; EMPC=EMPC)	0.0821	0.121	0.0721
ITEF TEQ (ND=DL; EMPC=EMPC)	0.164	0.198	0.142
Lab Sample ID	MB1_10195_DF	0119-716_10195_001	0119-716_10195_002

ENTHALPY ANALYTICAL

Summary of Results: WHO-2005 TEF TEQ

Enthalpy Ultratrace Batch # 10195

Method 8290

Analyte	Method Blank pg/g	OS-3-0.5' (411122-001) pg/g	OS-3-2' (411122-002) pg/g
2,3,7,8-TCDD	(0.0736)	(0.0577)	(0.0599)
1,2,3,7,8-PeCDD	(0.0893)	(0.0787)	(0.0801)
1,2,3,4,7,8-HxCDD	(0.0549)	(0.0396)	(0.0463)
1,2,3,6,7,8-HxCDD	(0.0549)	(0.0403)	(0.0491)
1,2,3,7,8,9-HxCDD	(0.0552)	(0.0387)	(0.043)
1,2,3,4,6,7,8-HpCDD	(0.0614)	2.1	(0.054)
OCDD	(0.0676)	18.9	1.92
2,3,7,8-TCDF	(0.0265)	(0.0286)	(0.0208)
1,2,3,7,8-PeCDF	(0.0235)	(0.0559)	(0.0224)
2,3,4,7,8-PeCDF	(0.0232)	(0.0594)	(0.0243)
1,2,3,4,7,8-HxCDF	(0.0296)	(0.0252)	(0.0235)
1,2,3,6,7,8-HxCDF	(0.0307)	(0.0248)	(0.0234)
2,3,4,6,7,8-HxCDF	(0.0323)	(0.0263)	(0.025)
1,2,3,7,8,9-HxCDF	(0.0354)	(0.029)	(0.0282)
1,2,3,4,6,7,8-HpCDF	(0.0214)	0.273	(0.0251)
1,2,3,4,7,8,9-HpCDF	(0.0294)	(0.0254)	(0.032)
OCDF	(0.0497)	0.492	(0.039)
ND = (DL) EMPC = [ ]			
WHO-2005 TEQ (ND=0; EMPC=0)	0.00	0.0296	0.000577
WHO-2005 TEQ (ND=0; EMPC=EMPC)	0.00	0.0296	0.000577
WHO-2005 TEQ (ND=DL/2; EMPC=0)	0.102	0.120	0.0881
WHO-2005 TEQ (ND=DL/2; EMPC=EMPC)	0.102	0.120	0.0881
WHO-2005 TEQ (ND=DL; EMPC=EMPC)	0.204	0.211	0.176
Lab Sample ID	MB1_10195_DF	0119-716_10195_001	0119-716_10195_002

Enthalpy Analytical Narrative Summary

Company	Enthalpy – Orange
Analyst	L. Boivin
Parameters	PCDD/PCDF

Client #	411122
Job #	0119-716
# Samples	2

Custody

Enthalpy Analytical Wilmington received the samples (via FedEx) by Robin Appelle, 1/18/19, on ice at 0.4°C in good condition.

Prior to, during, and after analysis, the samples were stored in the laboratory with access only by authorized personnel of Enthalpy Analytical, LLC.

Analysis

The samples were analyzed by EPA Method 8290 for PCDD/PCDF by HRGC/HRMS. The analysis was done using the following instrumentation; High-Resolution-GC - Agilent Tech Model# 6890, AutoSampler – CTC A200 and High-Resolution Mass-Spec. – Waters (Galadriel).

After sampling by the client, the laboratory spiked the samples with ES (extraction standard), extracted by liquid-liquid extraction (with methylene chloride), and spiked with AS (alternate standard) after solvent exchange. The extracts were processed via the cleanup procedure. The final extract was transferred to an autosampler vial and spiked with 20 µL of JS (injection standard solution) prior to analysis.

Calibration

The analytes and labeled standards in the initial calibration exhibited RSDs less than 20%. The continuing calibration met the 20% criteria for native analytes, and met the 30% criterion for the labeled standards. The OPR met the 40-130% criterion for ES recoveries with the exception of CS 37Cl-2378-TCDD, which fell outside the upper limits.

QC Notes

The Method Blank did not detect any analytes above the LOQ and met the 40-130% criterion for ES recoveries with the exception of CS 37Cl-2378-TCDD, which fell outside the upper limits.

The HRMS system displayed mass resolving power of at least 10,000 during the analysis.

The QC injections passed all method criteria.

Labeled and sampling (surrogate) standard recoveries were acceptable.

The samples were extracted well within the 30-day from collection holding time and analyzed within the 45-day from extraction to analysis holding time required by the method.

Reporting Notes	The samples met the 40-130% criterion for ES recoveries with the exception of CS 37Cl-2378-TCDD, which fell outside the upper limits. The TEQ was calculated and reported to the client using the I-TEFs and the WHO-2005 TEF, calculated several different ways. We also reported Totals and Detection Limits. These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above. The results presented in this report are representative of the samples as provided to the laboratory. The samples, calibrations and standards for the data presented in this report were analyzed at 2714 Exchange Drive, Wilmington, NC 28405.

General Reporting Notes – Data Qualifiers

The following are general reporting notes that are applicable to all Enthalpy Analytical, Inc.-Wilmington, NC data reports, unless specifically noted otherwise.

General Data Qualifiers / Data Attributes

- B – The analyte was found in the method blank, at a concentration that was at least 10% of the concentration in the sample.
- C – Two or more congeners co-elute. In EDDs, C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group are shown with the number of the lowest IUPAC co-eluter.
- E – The reported concentration exceeds the calibration range (upper point of the calibration curve).
- EMPC – Represents an estimated maximum possible concentration. EMPCs arise in cases where the signal/noise ratio is not sufficient for peak identification (the determined ion-abundance ratio is outside the allowed theoretical range), or where there is a co-eluting interference.
- J – Indicates that an analyte has a concentration below the reporting limit (lowest point of the calibration curve).
- ND – Indicates a non-detect.
- NR – Indicates a value that is not reportable.
- PR – Due to interference, the associated congener is poorly resolved.
- DI – Indicates the presence of a quantitative interference.
- SI – Denotes "Single Ion Mode" and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.
- U – The analyte was not detected. The Estimated Detection Limit (EDL) may be reported for this analyte.
- V – The labeled standard recovery was found to be outside of the method control limits.

DRBC/TMDL Specific Data Qualifiers / Data Attributes

- J – The reported result is an estimate. The value is less than the minimum calibration level but greater than the Estimated Detection Limit (EDL).
- U – The analyte was not detected in the sample at the Estimated Detection Limit (EDL).
- E – The reported concentration is an estimate. The value exceeds the upper calibration range (upper point of the calibration curve).

- D – Dilution Data. Result was obtained from the analysis of a dilution.
- B – Analyte found in the sample and associated method blank.
- Cxx – Co-elutes with the indicated congener, data is reported under the lowest IUPAC congener. 'xx' denotes the IUPAC number with the lowest numerical designated congener.
- NR – Analyte is not reportable because of problems in sample preparation or analysis.
- V – Labeled standard recovery is not within method control limits.
- X – Results from re-injection/repeat/second-column analysis.
- EMPC – Estimated Maximum Possible Concentration. Indicates that a peak is identified but did not meet the method specified ion-abundance ratio.

Lab Identifiers

- AR – Indicates use of the archived portion of the sample extract.
- CU – Indicates a sample that required additional clean-up prior to HRMS injection/processing.
- D – Indicates a dilution of the sample extract. The number that follows the "D" indicates the dilution factor.
- DE – Indicates a dilution performed with the addition of ES (Extraction Standard) solution.
- DUP – Designation for a duplicate sample.
- MS – Designation for a matrix spike.
- MSD – Designation for a matrix spike duplicate.
- RJ – Indicates a reinjection of the sample extract.
- S – Indicates a sample split. The number that follows the "S" indicates the split factor.

Job 0119-716 report due Friday Feb 01 2019

To	Ranjit Clarke	From	Lindsay Boone
Company	Enthalpy-Orange	Customer PO	
Site		Sales Order	SO1033668
Customer Phone	717-771-6900	Date Due QA	Wednesday, January 30, 2019
Customer Email	ranjit.clarke@enthalpy.com	Results Due	Friday, February 01, 2019
Customer Project	411122	Report Due	Friday, February 01, 2019

Line	Method	Analytes	Quant	Dept	Objective	Status
1	WM-013 EPA Method 8290 Solid report:	PCDD/PCDF	2	Wilmington		Sampled 01-15-19 08:43 (local time) Received 01-18-19 10:45 ReceivedTemp 0.4 StorageLocation R1

0119-716

Enthalpy Analytical
Formerly Associated Labs
1 Park Plaza, Suite 1000
Irvine, CA 92614
Tel: 714.771.6900 Fax: 714.538.1209
info-sc@enthalpy.com

MONTROSE ENVIRONMENTAL

Subcontract Laboratory:

Enthalpy - Wilmington - Su
2714 Exchange Drive
Wilmington, NC 28405
910-212-5866
ATTN: Bryan Vining
PO# N/A

Project: 411122 **Due:**
PM: Ranjit Clarke
Email: ranjit.clarke@enthalpy.com
CC: incomingreports@enthalpy.com
Require: ☑ EDD ☐ EDF ☐ EDT
Report To: ☑ MDL

Note:

Matrix	Sampled	Sample ID	Analysis	Comment
Solid	01/15/19 08:43	OS-3-0.5' (411122-001)	1613B_Dioxin/Furans_OUT	
Solid	01/15/19 08:51	OS-3-2' (411122-002)	1613B_Dioxin/Furans_OUT	

Note:
10 Day TAT

Dioxin/Furans full list

Relinquished By	Received By:
Date/Time 1/17/19 1515	Date/Time 1/18/19 1045 0.4°C T6
Date/Time	Date/Time

BE NA 1/18/19 Seals

Rec'd from FedEx 7742492 9730, hand delivered, on ice, no seals

411122-01 01/16/19 14:13 RC

This Is The Last Page Of This Report.

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805-399-0060

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan	**Report date:**	2/11/2019
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614	**Jones Ref. No.:**	E-0959
Attn:	Brad McCardell	**Date Sampled:**	2/8/2019
		Date Received:	2/8/2019
Project:	Riverside Cement Plant	**Date Analyzed:**	2/8/2019
Project Address:	1500 Rubidoux Blvd Riverside, CA	**Physical State:**	Soil Gas

ANALYSES REQUESTED

1. EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

A tracer gas mixture of n-pentane, n-hexane, and n-heptane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No tracer was detected in any of the samples reported herein.

The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 200 cc/min, except when noted differently on the chain of custody record. A default of 3 purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, a Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of sampling.

Approval: 

Angela Haar, Ph. D.
Mobile Lab Manager

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client:	Langan	**Report date:**	2/11/2019
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614	**Jones Ref. No.:**	E-0959
Attn:	Brad McCardell	**Date Sampled:**	2/8/2019
		Date Received:	2/8/2019
Project:	Riverside Cement Plant	**Date Analyzed:**	2/8/2019
Project Address:	1500 Rubidoux Blvd Riverside, CA	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**OS1-5'**	**OS1-15'**	**OS1-15' REP**	**OS2-5'**	**OS2-15'**		
Jones ID:	**E-0959-01**	**E-0959-02**	**E-0959-03**	**E-0959-04**	**E-0959-05**	**Reporting Limit**	**Units**
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	8	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	8	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	12	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	12	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	12	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**OS1-5'**	**OS1-15'**	**OS1-15' REP**	**OS2-5'**	**OS2-15'**		
Jones ID:	**E-0959-01**	**E-0959-02**	**E-0959-03**	**E-0959-04**	**E-0959-05**	**Reporting Limit**	**Units**
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	16	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	8	µg/m3
Toluene	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						**QC Limits**	
Dibromofluoromethane	103%	105%	109%	103%	101%	60 - 140	
Toluene-d_8	101%	105%	102%	100%	98%	60 - 140	
4-Bromofluorobenzene	92%	96%	99%	102%	93%	60 - 140	
Batch ID	E2-020819-01	E2-020819-01	E2-020819-01	E2-020819-01	E2-020819-01		

ND= Value less than reporting limit

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Langan	**Report date:**	2/11/2019
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614	**Jones Ref. No.:**	E-0959
Attn:	Brad McCardell	**Date Sampled:**	2/8/2019
		Date Received:	2/8/2019
Project:	Riverside Cement Plant	**Date Analyzed:**	2/8/2019
Project Address:	1500 Rubidoux Blvd Riverside, CA	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	**METHOD BLANK**	**SAMPLING BLANK**		
Jones ID:	**020819-E2MB1**	**020819-E2SB1**	**Reporting Limit**	**Units**
Analytes:				
Benzene	ND	ND	8	µg/m3
Bromobenzene	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	8	µg/m3
Bromoform	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	8	µg/m3
Chloroform	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	8	µg/m3
4-Chlorotoluene	ND	ND	8	µg/m3
Dibromochloromethane	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	8	µg/m3
Dibromomethane	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	12	µg/m3
1,3-Dichlorobenzene	ND	ND	12	µg/m3
1,4-Dichlorobenzene	ND	ND	12	µg/m3
Dichlorodifluoromethane	ND	ND	8	µg/m3
1,1-Dichloroethane	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	8	µg/m3
1,1-Dichloropropene	ND	ND	8	µg/m3

JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	METHOD BLANK	SAMPLING BLANK		
Jones ID:	**020819-E2MB1**	**020819-E2SB1**	**Reporting Limit**	**Units**
Analytes:				
cis-1,3-Dichloropropene	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	8	µg/m3
Freon 113	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	16	µg/m3
Isopropylbenzene	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	8	µg/m3
Methylene chloride	ND	ND	8	µg/m3
Naphthalene	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	8	µg/m3
Styrene	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	8	µg/m3
Tetrachloroethene	ND	ND	8	µg/m3
Toluene	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	8	µg/m3
Trichloroethene	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	8	µg/m3
1,2,3-Trichloropropane	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	16	µg/m3
o-Xylene	ND	ND	8	µg/m3
MTBE	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	2000	µg/m3
Tracer:				
n-Pentane	ND	ND	80	µg/m3
n-Hexane	ND	ND	80	µg/m3
n-Heptane	ND	ND	80	µg/m3
Dilution Factor	1	1		
Surrogate Recoveries:			**QC Limits**	
Dibromofluoromethane	99%	107%	60 - 140	
Toluene-d_8	98%	103%	60 - 140	
4-Bromofluorobenzene	91%	98%	60 - 140	
Batch ID	E2-020819-01	E2-020819-01		

ND= Value less than reporting limit

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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client:	Langan	**Report date:**	2/11/2019
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614	**Jones Ref. No.:**	E-0959
Attn:	Brad McCardell	**Date Sampled:**	2/8/2019
		Date Received:	2/8/2019
Project:	Riverside Cement Plant	**Date Analyzed:**	2/8/2019
Project Address:	1500 Rubidoux Blvd Riverside, CA	**Physical State:**	Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Batch ID: E2-020819-01

Jones ID:	**020819-E2LCS1**	**020819-E2LCSD1**			**020819-E2CCV1**	
Parameter	LCS Recovery (%)	LCSD Recovery (%)	RPD	Acceptability Range (%)	CCV	Acceptability Range (%)
Vinyl chloride	102%	92%	11.1%	60 - 140	152%	80 - 120
1,1-Dichloroethene	95%	98%	3.4%	60 - 140	97%	80 - 120
Cis-1,2-Dichloroethene	112%	110%	1.2%	70 - 130	102%	80 - 120
1,1,1-Trichloroethane	103%	101%	1.2%	70 - 130	106%	80 - 120
Benzene	97%	95%	2.7%	70 - 130	100%	80 - 120
Trichloroethene	115%	117%	2.2%	70 - 130	119%	80 - 120
Toluene	116%	125%	7.4%	70 - 130	116%	80 - 120
Tetrachloroethene	110%	118%	6.8%	70 - 130	113%	80 - 120
Chlorobenzene	108%	111%	2.1%	70 - 130	110%	80 - 120
Ethylbenzene	115%	110%	4.9%	70 - 130	118%	80 - 120
1,2,4 Trimethylbenzene	147%	139%	5.6%	70 - 130	139%	80 - 120
Gasoline Range Organics (C4-C12)	119%	117%	1.5%	70 - 130	118%	80 - 120
Surrogate Recovery:						
Dibromofluoromethane	102%	99%		60 - 140	100%	60 - 140
Toluene-d_8	102%	114%		60 - 140	99%	60 - 140
4-Bromofluorobenzene	102%	94%		60 - 140	100%	60 - 140

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%

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Soil-Gas Chain-of-Custody Record

Client: LANGAN

Project Name: RIVERSIDE CEMENT PLANT

Project Address: 1500 RUBIDOUX BLVD

RIVERSIDE , CALIFORNIA

Email:

Phone: 090-771-8217

Report To: BRAD MCCARDEL

Sampler: JOEL ALMAS

Date: 2/8/2019

Client Project #:

Purge Number: ☐ 1P ☑ 3P ☐ 7P ☐ 10P

Shut-In Test: (Y) / N

Report Options: EDD ____ EDF* - 10% Surcharge____ *Global ID _____

LAB USE ONLY

Jones Project #: E-0959

Page 1 of 1

Sample Container: GASTIGHT GLASS SYRINGE

If different than above, see Notes.

Turn Around Requested
- ☐ Immediate Attention
- ☐ Rush 24 Hours
- ☐ Rush 48 Hours
- ☐ Rush 72 Hours
- ☐ Normal
- ☑ Mobile Lab

Tracer
- ☑ n-pentane
- ☑ n-hexane
- ☑ n-heptane
- ☐ Helium
- ☐ 1,1-DFA
- ☐ _____

Reporting Limits Requested: ☐ Commercial ☑ Residential

Units: µg/m³

Analysis Requested

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	EPA 8260B (VOCs)	TPHg			Magnehelic Vacuum (in/H_2O)	Number of Containers	Notes & Special Instructions
OS1-5'	3	2810	2/8/19	9:25	9:33	E-0959-01	200	STEVE.1	M100.110	SG	X	X			<2	1	
OS1-15'	3	2980	2/8/19	9:48	8:51	E-0959-02	200	STEVE.2	M100.102	SG	X	X			4	1	
OS1-15' REP	3	2980	2/8/19	10:03	10:08	E-0959-03	200	STEVE.2	M100.102	SG	X	X			4	1	
OS2-5'	3	2810	2/8/19	10:40	10:43	E-0959-04	200	STEVE.1	M100.110	SG	X	X			<2	1	
OS2-15'	3	2980	2/8/19	10:50	11:01	E-0959-05	200	STEVE.2	M100.102	SG	X	X			<2	1	

Relinquished By (Signature): [signature] **Printed Name:** BRAD MCCARDEL **Company:** LANGAN **Date:** 2/8/2019 **Time:** 11:45am

Received By (Signature): [signature] **Printed Name:** JOEL ALMAS **Company:** JONES ENVIRONMENTAL, INC. **Date:** 2/8/2019 **Time:** 11:40

Relinquished By (Signature): **Printed Name:** **Company:** **Date:** **Time:**

Received By Laboratory (Signature): **Printed Name:** **Company:** **Date:** **Time:**

5 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.

G-4769

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LABORATORY RESULTS

Client:	Langan	**Report date:**	2/11/2019
Client Address:	32 Executive Park, Ste 130 Irvine, CA 92614	**JEL Ref. No.:**	ST-13309
Attn:	Brad McCardell	**Date Sampled:**	2/8/2019
		Date Received:	2/8/2019
Project Name:	Riverside Cement Plant	**Date Analyzed:**	2/8/2019
Project Address:	1500 Rubidoux Blvd. Riverside, CA	**Physical State:**	Soil Gas

ANALYSES REQUESTED

1. ASTM D1946 – Methane

Analytical – Soil Gas samples were analyzed using ASTM D1946 by GC/TCD. All samples were injected into the GC/MS system within 6 hours of sampling.

Approval:

Angela Haar, Ph. D.
Mobile Lab Manager

G-4770

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JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Langan 32 Executive Park, Ste 130 Irvine, CA 92614	**Report date:** **Jones Ref. No.:**	2/11/2019 ST-13309
Attn:	Brad McCardell	**Date Sampled:** **Date Received:**	2/8/2019 2/8/2019
Project:	Riverside Cement Plant	**Date Analyzed:**	2/8/2019
Project Address:	1500 Rubidoux Blvd. Riverside, CA	**Physical State:**	Soil Gas

ASTM D1946 – Methane

Sample ID:	**OS1-5'**	**OS1-15'**	**OS1-15' REP**	**OS2-5'**	**OS2-15'**		
Jones ID:	**ST-13309-01**	**ST-13309-02**	**ST-13309-03**	**ST-13309-04**	**ST-13309-05**	**Reporting Limit**	**Units**
Methane (CH_4)	ND	ND	ND	ND	ND	0.01	%
Dilution Factor	1	1	1	1	1		
	ASTM-020819_01	ASTM-020819_01	ASTM-020819_01	ASTM-020819_01	ASTM-020819_01		

ND = Value less than reporting limit

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JONES ENVIRONMENTAL
LABORATORY RESULTS

Client:	Langan 32 Executive Park, Ste 130 Irvine, CA 92614	**Report date:** **Jones Ref. No.:**	2/11/2019 ST-13309
Attn:	Brad McCardell	**Date Sampled:** **Date Received:**	2/8/2019 2/8/2019
Project:	Riverside Cement Plant	**Date Analyzed:**	2/8/2019
Project Address:	1500 Rubidoux Blvd. Signal Hill, CA	**Physical State:**	Soil Gas

ASTM D1946 – Methane

Sample ID:	**AMBIENT AIR BLANK**		
Jones ID:	**ASTM-020819_MB1**	**Reporting Limit**	**Units**
Methane (CH_4)	ND	0.01	%
Dilution Factor	1		
	ASTM-020819_01		

ND = Value less than reporting limit

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JONES ENVIRONMENTAL
QUALITY CONTROL INFORMATION

Client:	Langan 32 Executive Park, Ste 130 Irvine, CA 92614	**Report date:** **Jones Ref. No.:**	2/11/2019 ST-13309
Attn:	Brad McCardell	**Date Sampled:** **Date Received:**	2/8/2019 2/8/2019
Project:	Riverside Cement Plant	**Date Analyzed:**	2/8/2019
Project Address:	1500 Rubidoux Blvd. Riverside, CA	**Physical State:**	Soil Gas

ASTM D1946 – Methane

GC#: ASTM-020819_01

Jones ID:	**ASTM-020819_CCV1**	**ASTM-020819_CCVD1**		
Parameter	CCV Recovery (%)	CCVD Recovery (%)	RPD	Acceptability Range (%)
Methane (CH_4)	105%	105%	0.0%	60 - 140

CCV = Lab Control Sample
CCVD = Lab Control Sample Duplicate
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

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Chain-of-Custody Record

Client: Langan
Project Name: Riverside cement Plant
Project Address: 1500 Rubidoux Blvd, Riverside, CA
Email:
Phone: 909-771-8217
Report To: Brad McCardell **Sampler:** Joel Almas

Date: 02/08/19
Client Project #:

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24 Hours
- ☐ Rush 48 Hours
- ☐ Rush 72 Hours
- ☒ Normal

Report Options
EDD ____
EDF* - 10% Surcharge ____
*Global ID _____

LAB USE ONLY
Jones Project # ST-13309
Page 1 of 1

Sample Condition as Recieved:
Chilled ☐ yes ☐ no
Sealed ☐ yes ☐ no

Sample Container / Preservative Abbreviations
AS - Acetate Sleeve
SS - Stainless Steel Sleeve
BS - Brass Sleeve
G - Glass
AB - Amber Bottle
P - Plastic
SOBI - Sodium Bisulfate
MeOH - Methanol
HCl - Hydrochloric Acid
HNO3 - Nitric Acid
O - Other (See Notes)

Analysis Requested

Sample ID	Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	ASTM 1946 Methane										Number of Containers	Notes & Special Instructions
OS1 - 5'	02/08	11:22	ST-13309-01	N/A	78029	S	X									42	1	Tedlar
OS1 - 15'	02/08	11:25	ST-13309-02	N/A	78029	S	X									4	1	
OS1 - 15' REP	02/08	11:27	ST-13309-03	N/A	78029	S	X									42	1	
OS2 - 5'	02/08	11:08	ST-13309-04	N/A	78029	S	X									42	1	
OS2 - 15'	02/08	11:12	ST-13309-05	N/A	78029	S	X									42	1	
																		2

Relinquished By (Signature): Brad McCardell **Printed Name:** Brad A McCardell
Company: Langan **Date:** 2/8/19 **Time:** 1145 am

Received By (Signature): Joel Almas **Printed Name:** JOEL ALMAS
Company: Jones Env **Date:** 02/08/19 **Time:** 1140

Relinquished By (Signature): **Printed Name:**
Company: **Date:** **Time:**

Received By Laboratory (Signature): **Printed Name:**
Company: G-4774 **Date:** **Time:**

5 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been reqested, and the information provided herein is correct and accurate.